

Final Rule Change Report: Reserve Capacity Mechanism -Minor Changes 2017 (RC_2017_04)

Fast Track Rule Change Process 26 September 2017

Executive Summary

On 15 August 2017, the Public Utilities Office submitted a Rule Change Proposal to address various manifest, minor and typographical errors and change inconsistent formatting arising from the *Wholesale Electricity Market Rules Amending Rules 2016* that were gazetted on 31 May 2016 (2016 WEM Amending Rules).

The Rule Change Panel decided to progress the Rule Change Proposal under the Fast Track Rule Change Process. The Rule Change Notice was published on 21 August 2017.

One submission (from Synergy) was received during the consultation period, which closed on 11 September 2017.

Synergy expressed general support for the Rule Change Proposal but raised several issues with the proposed Amending Rules. Synergy suggested several amendments to clauses 9.7.1, 9.7.1A and 9.7.1B, some of which the Rule Change Panel has adopted.

Synergy also raised concerns about the proposed solution for a manifest error regarding the calculation of Expected DSM Dispatch Quantities. Clause 4.5.14C sets out requirements for the calculation of the Expected DSM Dispatch Quantity for a Capacity Year, a process AEMO must document in detail in a Market Procedure. Synergy proposed additional changes to clause 4.5.14C to prescribe in greater detail how one of the input variables to the calculation should be determined. The Rule Change Panel has not however made any further changes to clause 4.5.14C, as it considers the specific details of how AEMO must determine these input values should be covered in the Market Procedure, and so further prescription in the Market Rules is unnecessary.

The Rule Change Panel considers that the proposed amendments, as modified after the consultation period, will correct manifest, minor and typographical errors and increase the consistency and readability of the Market Rules, and are consistent with the Wholesale Market Objectives.

The Rule Change Panel has not identified any costs or practicality issues associated with the implementation of this proposal.

The Rule Change Panel's decision is to accept the Rule Change Proposal as modified following the consultation period. The Amending Rules will commence at **8:00 AM on 1 October 2017**, immediately after the commencement of Schedule B, Part 3 of the 2016 WEM Amending Rules.



Contents

Exe	Executive Summary2		
1.	Rule C	change Proposal and Timeline	4
2.	Proposed Amendments		
	2.1	The Rule Change Proposal	4
	2.2	The Rule Change Panel's Initial Assessment of the Proposal	5
3.	Consultation		5
	3.1	General	5
	3.2	The Market Advisory Committee	5
	3.3	Submissions Received During the Consultation Period	5
	3.4	The Rule Change Panel's Response to Submission Received during the Consu Period	
	3.5	Public Forums and Workshops	11
4.	The Ru	ule Change Panel's Final Assessment	11
	4.1	Additional Amendments to the Amending Rules	11
	4.2	Wholesale Market Objectives	12
	4.3	Practicality and Cost of Implementation	13
	4.3.1	Cost	13
	4.3.2	Practicality	13
5.	The Rule Change Panel's Decision		13
	5.1	Reason for the Rule Change Panel's Decision	13
6.	Ameno	ding Rules	13
	6.1	Commencement	13
	6.2	Amending Rules	13



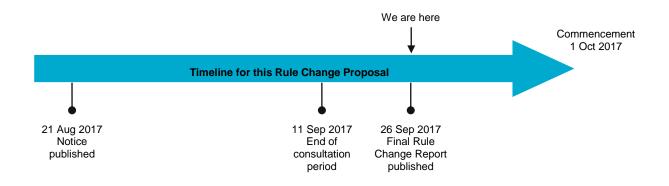
1. Rule Change Proposal and Timeline

On 15 August 2017, the Public Utilities Office (PUO) submitted a Rule Change Proposal titled "Reserve Capacity Mechanism – Minor Changes 2017" (RC_2017_04).

This proposal is being processed using the Fast Track Rule Change Process, described in section 2.6 of the Market Rules.

On 18 September 2017 the Rule Change Panel extended the timeframe for the publication of the Final Rule Change Report in accordance with clauses 2.5.10 and 2.5.11 of the Market Rules. Further details of the extension are available on the Rule Change Panel's website.

The timelines for progressing this proposal, as amended in the extension notice, are:



The Rule Change Panel's final decision is to accept the Rule Change Proposal as modified following the consultation period. The detailed reasons for the Rule Change Panel's decision are set out in section 5 of this report.

All documents related to this Rule Change Proposal can be found on the Rule Change Panel's website: <u>Rule Change: RC_2017_04 - Economic Regulation Authority Western</u> <u>Australia</u>.

2. **Proposed Amendments**

2.1 The Rule Change Proposal

The PUO's Rule Change Proposal seeks to address various manifest, minor and typographical errors in the Market Rules and change inconsistent formatting arising from the *Wholesale Electricity Market Rules Amending Rules 2016* that were gazetted on 31 May 2016 (2016 WEM Amending Rules).

The proposed changes affect clauses of the current Market Rules as well as the amending rules in Schedule B, Part 3 of the 2016 WEM Amending Rules, which will commence on 1 October 2017. The Public Utilities Office proposed to commence the changes at 8:00 AM on 1 October 2017, immediately after the commencement of the amending rules in Schedule B, Part 3.



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.

The Rule Change Panel decided to progress the Rule Change Proposal using the Fast Track Rule Change Process, described in section 2.6 of the Market Rules, on the grounds that the proposed changes are required to correct minor and manifest errors or are of minor or procedural nature and therefore the proposal satisfies the criteria in clauses 2.5.9(a) and 2.5.9(b) of the Market Rules.

- 2.5.9. The Rule Change Panel may subject a Rule Change Proposal to the Fast Track Rule Change Process if, in its opinion, the Rule Change Proposal:
 - (a) is of a minor or procedural nature; or
 - (b) is required to correct a manifest error; or
 - (c) is urgently required and is essential for the safe, effective and reliable operation of the market or the SWIS.

3. Consultation

3.1 General

The Rule Change Notice for this proposal was published on 21 August 2017. On the same day, stakeholders were advised of the publication of the Rule Change Notice via the Rule Change Panel's RulesWatch email service.

3.2 The Market Advisory Committee

The Rule Change Proposal was not discussed by the Market Advisory Committee (MAC). This is because:

- the PUO did not elect to present the proposal to the MAC before its formal submission into the rule change process; and
- the MAC did not meet during the consultation period and, given the minor nature of the amendments, the Rule Change Panel did not consider that a special meeting of the MAC to discuss the proposal was warranted.

3.3 Submissions Received During the Consultation Period

The consultation period for this Rule Change Proposal was held between 21 August 2017 and 11 September 2017. One out of session submission was received from Synergy.

In its submission Synergy raised several issues relating to the proposed Amending Rules and suggested alternative drafting for four clauses, including two clauses that were not a part of the original Rule Change Proposal.

Despite the issues raised, Synergy considered that the proposal is consistent with Wholesale Market Objective (a) and will provide clarity and consistency in the application of the Market Rules.

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Synergy's submission is available in full on the Rule Change Panel's website.

3.4 The Rule Change Panel's Response to Submission Received during the Consultation Period

The Rule Change Panel's response to each of the issues identified in Synergy's submission is presented in the table over the page.



Issue	Comment/ Issue raised	Rule Change Panel response
1	Synergy considers that the use of the terms "CCP(p,m)" in clause 9.7.1A and "CPP(p,m)" in clause 9.7.1B is unnecessary and confusing.	The Rule Change Panel agrees that the use of the terms "CPP(p,m)" and "CCP(p,m)" is unnecessary and confusing, especially as CCP is not a true acronym for "Capacity Provider Payment".
	Synergy suggests that both terms be replaced by the full names of the variables they represent, i.e. replace: • "CCP(p,m)" with "Capacity Provider Payment(p,m)" in	The Rule Change Panel has therefore amended clause 9.7.1A and further amended clause 9.7.1B to replace the terms with the original variable names for which they stand.
	 clause 9.7.1A; and "CPP(p,m)" with "Capacity Purchaser Payment(p,m)" in clause 9.7.1B. 	
2	Synergy considers that the formula displayed in proposed amended clause 9.7.1B is hard to read, because the variables used in the sub-formulas of the main formula are not displayed in	The amendments to the formula in clause 9.7.1B were proposed to correct several manifest errors in the clause (as outlined under item 4), rather than to implement a certain style of displaying formulas in the Market Rules.
	indented sub-levels, each with its own "where" header. Synergy provides alternative drafting to display the formula using indentation for variables of sub-formulas. Alternatively, Synergy	The Rule Change Panel agrees that there is currently inconsistency in how formulas are formatted in the Market Rules and intends to develop a holistic Rule Change Proposal to standardise the formatting of "formula" clauses.
	proposes to amend clause 9.7.1B to display the variables in alphabetic order instead of the order of appearance. Synergy also provides proposed drafting to change the display of the related clause 9.7.1A.	However, the Rule Change Panel considers that the proposed drafting of clause 9.7.1B is fit for purpose, and in general further changes to implement specific formatting styles should wait until such time as a standard for formula formatting has been developed and consulted on with stakeholders. For these reasons the
	Synergy notes that different formats for displaying formula sub- levels are used throughout the Market Rules and considers that	Rule Change Panel has not adopted Synergy's proposed changes to the formatting of clause 9.7.1B.
	the formatting of all formulas should be consistent throughout the Market Rules.	However, given the close relationship between clauses 9.7.1A and 9.7.1B the Rule Change Panel has adopted a similar formatting approach in its amendments to clause 9.7.1A to that used by the PUO in its proposed amendments to clause 9.7.1B.
3	Synergy notes that the form of displaying variables in formulas is inconsistent in the Market Rules, e.g. DSM Capacity Paymen <mark>t (</mark> p,m) vs IRC <mark>R(</mark> p,m).	The Rule Change Panel agrees that there is no consistent convention for the spelling of variables in the Market Rules. While a full solution to this problem exceeds the scope of this Rule Change Proposal, the Rule Change Panel has made additional changes to clauses 9.7.1, 9.7.1A and 9.7.1B to remove unnecessary spaces and standardise the use of underscores in variable names.

Issue	Comment/ Issue raised	Rule Change Panel response
4	Synergy seeks clarification of the manifest error that is proposed to be corrected in clause 9.7.1B.	 The proposed amendments to clause 9.7.1B seek to address the following manifest errors: a missing "(p,m)" in a variable Capacity Purchaser Payment(p,m) a missing equal sign in a sub-formula: LF_Capacity_Cost(p,m) = LF_Capacity_Cost(m) × Capacity Share(p,m) The Rule Change Panel also notes that in the original version of clause 9.7.1B not all of the variables used in each sub-formula are listed in that sub-formula's indented variable list, which technically leaves the missing variables undefined. For example, the variable "P" is not defined in the sub-formula for the variable "Shortfall Share(p,m)" and the variable "Capacity_Cost(p,m)".
5	Synergy understands the intent of the proposed changes to Clause 4.5.14C, but has concerns in regards to the proposed wording in section (d). The proposed wording may be interpreted as though AEMO has an obligation to "forecast" the Capacity Credits to be assigned for a particular Capacity Year, which may lead to inconsistency and uncertainly of the process of Capacity Credits assignment. Synergy considers that AEMO's role in setting the price for DSM Capacity Credits should be purely formulaic, and not require potentially difficult and contentious estimating or forecasting of the intentions and/or abilities of DSM providers to contract sufficient capacity to satisfy their reserve capacity obligations at the time it publishes the relevant Statement of Opportunities. To avoid that issue, we propose amending the wording of clause 4.5.14C to state: (d) dividing the difference in clause 4.5.14C(c) by the total of all DSM Capacity Credits assigned to Demand Side Programmes for the upcoming Capacity Year as at the date of the publication of the Statement of Opportunities.	The Rule Change Panel does not agree with Synergy's alternative drafting for clause 4.5.14C(d). Clause 4.5.14C applies to the calculation of the Expected DSM Dispatch Quantity for each of the ten Capacity Years in the Long Term PASA Study Horizon. Synergy's proposed drafting prescribes the use of the number of DSM Capacity Credits assigned for the first Capacity Year in that horizon. This would be an unsuitable value for the second Capacity Year in the horizon, as Capacity Credits will usually have been assigned for that Capacity Year at the time of the calculations, and the number of DSM Capacity Credits assigned for the first Capacity Year. Similarly, the number of DSM Capacity Credits assigned for the first Capacity Year is an unsuitable choice for the third and subsequent Capacity Years in the horizon, given the availability of values for the second Capacity Year. RCP Support met with Synergy to seek clarification of its concerns. Synergy explained that its primary concern with the proposed drafting was that the task of "estimating" the number of Capacity Credits that would be assigned for the Capacity Year was vague and subjective rather than formulaic. Synergy considered the clause should be drafted to match the statement in the Rule Change Proposal that the value used by AEMO "should be the total number of DSM Capacity Credits assigned for that the total number of DSM Capacity Credits assigned for the total number of DSM Capacity Credits assigned for the total number of DSM Capacity Credits assigned for the total number of DSM Capacity Credits assigned for the total number of DSM Capacity Year at the time of the calculation (or else forecast to be assigned, for Capacity Years for which Capacity Credits have not yet been assigned)" Synergy suggested that the proposed amended clause 4.5.14C(d) requires AEMO to estimate, or forecast, the

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Issue	Comment/ Issue raised	Rule Change Panel response
		assigned DSM Capacity Credits, which could be difficult and lead to unnecessary uncertainty regarding outcomes and potentially extra costs for the market. The Rule Change Panel does not consider that the proposed drafting imposes an obligation on AEMO to undertake a complex and expensive forecasting process to determine the clause 4.5.14C(d) values, in particular for a Capacity Year for which Capacity Credits have already been assigned. The Market Procedure "Determination of Expected DSM Dispatch Quantity and DSM Activation Price" indicates that, for Capacity Years for which Capacity Credits have been assigned, AEMO's intent is to use the number of DSM Capacity Credits assigned for the relevant Capacity Year at the time of the calculation. This is consistent with Synergy's comments and the comments made in the Rule Change Proposal.
		More generally, the Rule Change Panel considers that the process for determining specific input variables for Expected DSM Dispatch Quantity calculations should be detailed in the Market Procedure. Further prescription in the Market Rules about how AEMO must determine these values is unnecessary and in conflict with the principle of allocating responsibility for these calculations to AEMO. In the unlikely event that AEMO identifies a reason to change the current approach in future, the Rule Change Panel sees no reason why the change in methodology should not be managed through the Procedure Change Process.
		For these reasons the Rule Change Panel has made no further changes to the drafting of clause 4.5.14C.
6	Synergy proposes a change to clause 9.7.1 to clarify the source of the two variables used in the calculation of RSCA(p,m).	Agreed – the proposed Amending Rules have been updated accordingly.
7	 Synergy proposes several changes to clause 9.7.1A to: clarify that the calculation is for Market Participant p for Trading Month m; add missing variable indexes, including Non_Allocated_Gen_Capacity_Payments(p,m) and Non-Allocated_SPA_Payments(p,m); Add a definition for DSM_Capacity_Credits(p,m); remove an unused definition for the set "P"; 	The Rule Change Panel agrees with the intent of the proposed changes and has incorporated them into the proposed Amending Rules with some minor modifications.

Issue	Comment/ Issue raised	Rule Change Panel response
	 clarify that Tranche_2_DSM_Dispatch Payments(p,m) is calculated for a Trading Month; and correct various minor punctuation errors. 	
8	Synergy proposes a change to clause 9.7.1B to clarify that the calculation is for Market Participant p for Trading Month m.	Agreed – the proposed Amending Rules have been updated accordingly.

3.5 Public Forums and Workshops

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

4. The Rule Change Panel's Final Assessment

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 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 states that, when deciding whether to make Amending Rules, the Rule Change Panel must have regard to the following:

- 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.

When 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 4.2 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 4.3 of this report.
- A summary of the views expressed in submissions is available in section 3 of this report. The MAC did not discuss the Rule Change Proposal.
- The Rule Change Panel has not commissioned a technical study in respect of this Rule Change Proposal.

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

4.1 Additional Amendments to the Amending Rules

Following the consultation period the Rule Change Panel made some additional changes to the proposed Amending Rules.

• The Rule Change Panel converted two formulas in clause 4.26.3(b) to Word "formula" format, resolving the formula spacing problems identified in the Rule Change Proposal. The technical content of the formulas has not been altered.

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- The Rule Change Panel made several changes to clauses 9.7.1 and 9.7.1A, and some further changes to clause 9.7.1B, to address some of the issues raised by Synergy in its submission and correct additional manifest and minor errors identified during the assessment of that submission. The changes include the following:
 - Clause 9.7.1:
 - add text to clarify the source of the two variables used to calculate RSCA(p,m);
 - Clause 9.7.1A:
 - extend the initial sentence to clarify that the calculation is for Market Participant p for Trading Month m;
 - replace CCP(p,m) with Capacity_Provider_Payment(p,m);
 - modify the ordering of variable definitions to be consistent with that used for clause 9.7.1B;
 - add missing variable indexes for Non_Allocated_SPA_Payments(p,m) and Non_Allocated_Gen_Capacity_Payments(p,m);
 - amend the definitions of Monthly_Reserve_Capacity_Price(m) and Monthly_Special_Price(p,m,a) to clarify that these prices are specified for a Trading Month and not a Trading Day;
 - amend the definition of Monthly_DSM_Reserve_Capacity_Price(m) to clarify that it is based on the DSM Reserve Capacity Price which applies for Trading Month m;
 - add a definition for DSM_Capacity_Credits(p,m);
 - remove the unused definition for set "P";
 - remove a superfluous left bracket before CC_ASPA(p,m,a) in the definition of Non_Allocated_SPA_Payments(p,m); and
 - amend the definition of Tranche_2_DSM_Dispatch_Payments(p,m) to clarify that the variable is calculated for a Trading Month;
 - Clause 9.7.1B:
 - extend the initial sentence to clarify that the calculation is for Market Participant p for Trading Month m; and
 - replace CPP(p,m) with Capacity_Purchaser_Payment(p,m); and
 - Clauses 9.7.1, 9.7.1A and 9.7.1B: minor changes to correct punctuation and formatting, include underscores between the components of variable names and remove unnecessary spaces within variable names.

The additional changes to the proposed Amending Rules presented in the Rule Change Proposal are detailed in Appendix A of this report.

4.2 Wholesale Market Objectives

The Rule Change Panel considers that the proposed amendments, as modified after the consultation period, will correct manifest, minor and typographical errors and increase the

consistency and readability of the Market Rules, and are consistent with the Wholesale Market Objectives.

4.3 Practicality and Cost of Implementation

4.3.1 Cost

The Rule Change Panel has not identified any additional costs arising from the implementation of the proposed amendments, including the modifications made after the consultation period.

The proposed amendments will not result in any additional costs for Market Participants.

4.3.2 Practicality

The Rule Change Panel has not identified any issues with the practicality of implementing the proposed changes.

5. The Rule Change Panel's Decision

The Rule Change Panel's final decision is to accept the Rule Change Proposal as modified following the consultation period.

5.1 Reason for the Rule Change Panel's Decision

The Rule Change Panel has made its decision on the basis that the Amending Rules:

- correct manifest, minor and typographical errors in the Market Rules;
- increase the consistency and readability of the Market Rules;
- are consistent with the Wholesale Market Objectives;
- are generally supported by the one submission received; and
- create no cost or practicality issues.

Additional detail outlining the analysis behind the Rule Change Panel's decision is outlined in section 4 of this report.

6. Amending Rules

6.1 Commencement

The amendments to the Market Rules resulting from this Rule Change Proposal will commence at 8:00 AM on 1 October 2017, immediately after the commencement of the amending rules in Schedule B, Part 3 of the *Wholesale Electricity Market Rules Amending Rules 2016*.

6.2 Amending Rules

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



- 4.5.14C. The Market Procedure under clause 4.5.14B(a) is to provide for the Expected DSM Dispatch Quantity <u>for a Capacity Year</u> to be calculated by—
 - estimating the amount of Unserved Energy which would be expected to occur in-<u>a the</u> Capacity Year if no Demand Side Programmes were dispatched; and
 - (b) estimating the amount of Unserved Energy which would be expected to occur in the Capacity Year if each Demand Side Programme to which DSM Capacity Credits are (or are forecast to be) assigned, were dispatched for 200 hours; and
 - (c) determining the difference between the estimates in clauses 4.5.14C(a) and (b); and
 - (d) dividing the difference in clause 4.5.14C(c) by the total of all DSM Capacity Credits assigned (or forecast to be assigned) to Demand Side Programmes for the Capacity Yearto all Demand Side Programmes as at 1 October of Year 3 of the relevant Reserve Capacity Cycle.
- • •
- 4.26.3. The Generation Capacity Cost Refund for Trading Interval t in Capacity Year y for a Market Participant p holding Capacity Credits associated with a generation system is the lesser of—
 - the Maximum Participant Generation Refund determined for Market Participant p and Capacity Year y less all Generation Capacity Cost Refunds applicable to Market Participant p in previous Trading Interval t falling in Capacity Year y; and
 - (b) the Generation Reserve Capacity Deficit Refund for Market Participant p and Trading Interval t, plus the Net STEM Refund in Trading Interval t for Market Participant p,

where the Net STEM Refund is calculated as follows—

N STEM Refund(p, t)= TIRR weighted(p, t) ×N STEM Short(p, t)

<u>N STEM Refund(p, t) = TIRR weighted(p, t) × N STEM Short(p, t)</u>

Where-

- i. N STEM Refund(p, t) is the Net STEM Refund for Market Participant p in Trading Interval t;
- TIRR weighted(p, t) is the weighted average of the Trading Interval Refund Rate in Trading Interval t for each Facility <u>that Market</u> Participant p holds Capacity Credits for and is calculated as follows—

 $\frac{\text{TIRR weighted}(p, t) = \sum_{f \in F} \frac{\text{TIRR}(f, t) \times \text{CC}(f, t)}{\sum_{f \in F} \text{CC}(f, t)}}{\text{TIRR weighted}(p, t) = \sum_{f \in F} \frac{\text{TIRR}(f, t) \times \text{CC}(f, t)}{\sum_{f \in F} \text{CC}(f, t)}}$

where---

- 1. F is the set of Scheduled Generators registered to Market Participant p and f is a Facility within that set;
- 2. TIRR(f, t) is the Trading Interval Refund Rate for Facility f in Trading Interval t; and
- 3. CC(f,t) is the number of Capacity Credits associated with Facility f in Trading Interval t; and
- iii. N STEM <u>ShortRefund(p, t)</u> is the Net STEM Shortfall for Market Participant p in Trading Interval t.

...

- 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 infor that <u>Trading Mmonth</u>; 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.

...

- 6.11A.2. When AEMO receives a submission under clause 6.11A.1 from a Market <u>CustomerParticipant</u>, it must as soon as practicable—
 - (a) if the received data complies with, as applicable, clauses 6.11A.3 or 6.11A.4
 - i. accept the received data and communicate the acceptance to the Market <u>CustomerParticipant</u>; and
 - ii. revise the Standing Data accordingly; or
 - (b) if the received data does not comply with, as applicable, clauses 6.11A.3 or 6.11A.4—reject the received data and communicate the rejection to the Market <u>CustomerParticipant</u>.
- • •
- 6.17.6. The Non-Balancing Facility Dispatch Instruction Payment, DIP(p,d,t), for Market Participant p and Trading Interval t of Trading Day d equals the sum of:

- (a) the sum over all Dispatchable Loads registered to Market Participant p of the amount that is the product of:
 - i. the quantity, in MWh, by which the Dispatchable Load reduced its consumption in response to a Dispatch Instruction, where this quantity is equal to the lesser of:
 - the Loss Factor adjusted quantity of the value determined by System Management under clause <u>6.17.6A(a)6.17.6A</u>; or
 - ...

. . .

- (b) the sum over all Dispatchable Loads registered to Market Participant p of the amount that is the product of:
 - i. the quantity, in MWh, by which the Dispatchable Load increased its consumption in response to a Dispatch Instruction, where this quantity is equal to the lesser of:
 - the Loss Factor adjusted quantity of the value determined by System Management under clause 6.17.6A(a)6.17.6A

. . .

. . .

- (c) the sum over all Demand Side Programmes registered to Market Participant p of the amount that is the product sum of
 - i. the Tranche 2 DSM Dispatch Payments; and
 - ii. the Tranche 3 DSM Dispatch Payments.

• • •

6.17.6C. The methodology described in 6.17.6B must ensure that, subject to clauses
 6.17.6D and 6.16.6E 6.17.6E, the Non-Balancing Facility Dispatch Instruction
 Payment is determined as follows—

...

...

- 7.6.10. If a Power System Operationng Procedure is published under clause 7.6.10A, then a Market Participant who has been assigned DSM Capacity Credits must, in the time and manner specified in the Power System Operationng Procedure, provide System Management with, for each Trading Interval—
 - •••
- 7.13.5. System Management must—
 - (a) for the purposes of clause 7.13.1(eG) calculate, for each Demand Side Programme for each Trading Interval, the amount, in MWh, by which the



Facility was requested by the applicable Dispatch Instruction to decrease its consumption for the Trading Interval, which amount—

...

- (b) develop a Power System Operationng Procedure that details how it will calculate the amount in clause 7.13.5(a).
- 9.7.1. The Reserve Capacity settlement amount for Market Participant p for Trading Month m is—

RCSA(p,m) = Capacity Provider Payment(p,m)— Capacity Purchaser Payment(p,m)

9.7.1. The Reserve Capacity settlement amount for Market Participant p for Trading Month m is—

> <u>RCSA(p,m) = Capacity_Provider_Payment(p,m) –</u> <u>Capacity_Purchaser_Payment(p,m)</u>

Where-

<u>Capacity_Provider_Payment(p,m) is calculated in accordance with clause</u> <u>9.7.1A; and</u>

Capacity_Purchaser_Payment(p,m) is calculated in accordance with clause 9.7.1B.

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

CCP(p,m) = Participant Capacity Rebate(p,m)

- + Non_Allocated_ Gen_Capacity_Payments (p,m)
- + Non_Allocated_SPA_Payments (p,m)
- Intermittent Load Refund(p,m)
- + Supplementary Capacity Payment(p,m)
- + DSM_Capacity_Payments (p,m)
- + Tranche 2 DSM Dispatch Payments (p,m)
- Capacity Cost Refund(p,m)

Where-

Non_Allocated_Gen_Capacity_Payments =

Monthly Reserve Capacity Price(m) x (CC_NSPA(p,m)-CC_ANSPA(p,m))

Where-

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

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 not covered by Special Price Arrangements and which are allocated to other Market Participants;

Non_Allocated_SPA_Payments =

Sum(a \in A, Monthly Special Price(p,m,a) x (CC_SPA(p,m,a)-(CC_ASPA(p,m,a)))

Where-

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

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

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

DSM_Capacity_Payments (p,m) =

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

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

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

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

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

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

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

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

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

For the purposes of clause 9.7.1, Capacity Provider Payment(p,m) for Market 9.7.1A. Participant p for Trading Month m is-

Capacity Provider Payment(p,m) = Participant Capacity Rebate(p,m)

- + Non Allocated Gen Capacity Payments(p,m)
- + Non Allocated SPA Payments(p,m)
- Intermittent_Load_Refund(p,m)
- + Supplementary Capacity Payment(p,m)
- + DSM_Capacity_Payments(p,m)
- + Tranche_2_DSM_Dispatch_Payments(p,m)
- <u>– Capacity_Cost_Refund(p,m)</u>

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);

Non_Allocated_Gen_Capacity_Payments(p,m) =

Monthly Reserve Capacity Price(m) × (CC NSPA(p,m) -CC ANSPA(p,m))

Non Allocated SPA Payments(p,m) = <u>Sum(a \in A, Monthly_Special_Price(p,m,a) ×</u>

 $(CC_SPA(p,m,a) - CC_ASPA(p,m,a)))$

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);

DSM_Capacity_Payments(p,m) =

DSM Capacity Credits(p,m) × Monthly DSM Reserve Capacity Price(m)

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);

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 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;



<u>CC_ANSPA(p,m) is the number of Capacity Credits held by Market Participant p in</u> <u>Trading Month m that are not covered by Special Price Arrangements and which</u> <u>are allocated to other Market Participants;</u>

<u>A is the set of all Special Price Arrangements associated with a Facility where "a"</u> is used to refer to a member of that set;

<u>Monthly_Special_Price(p,m,a) is the Monthly Special Reserve Capacity Price for</u> <u>Special Price Arrangement a for Market Participant p defined in accordance with</u> <u>clause 4.29.2 which applies for Trading Month m;</u>

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

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

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.

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

CPP(p,m) =

Targeted Reserve Capacity costs(p,m) + Shared Reserve capacity costs (p,m) - LF_Capacity_Cost(p,m)

Where-

Targeted Reserve Capacity costs(p,m) =

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

Where-

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

Shortfall Share(p,m) =

(IRCR(p,m)—Allocated Capacity Credits(p,m)) / Sum(p ⊂ P, (IRCR(p,m)—Allocated Capacity Credits(p,m))

Where-

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

RCP

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

Shared Reserve Capacity Cost(p,m) =

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

Where-

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

Capacity Share(p,m) = IRCR(p,m) / Sum(p ⊂ P, IRCR(p,m))

LF_Capacity_Cost(p,m)

LF_Capacity_Cost(m) × Capacity Share (p,m))

Where-

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

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

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

> <u>Capacity_Purchaser_Payment(p,m) = Targeted_Reserve_Capacity_Cost(p,m)</u> + <u>Shared_Reserve_Capacity_Cost(p,m)</u> - LF_Capacity_Cost(p,m)

Where-

<u>Targeted_Reserve_Capacity_Cost(p,m) =</u> <u>Targeted_Reserve_Capacity_Cost(m) × Shortfall_Share(p,m)</u>

<u>Shared_Reserve_Capacity_Cost(p,m) =</u> <u>Shared_Reserve_Capacity_Cost(m) × Capacity_Share(p,m)</u>

<u>LF_Capacity_Cost(p,m) =</u> LF_Capacity_Cost(m) × 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);

Shortfall Share(p,m) =

<u>(IRCR(p,m) – Allocated Capacity Credits(p,m)) /</u> Sum(p∈P,(IRCR(p,m) – Allocated Capacity Credits(p,m)))</u>

RCP

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);

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

<u>LF_Capacity_Cost(m) is the total Load Following Service capacity payment</u> 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

<u>Allocated_Capacity_Credits(p,m) equals the Capacity Credits allocated to</u> <u>Market Participant p in Trading Month m in accordance with sections 9.4</u> <u>and 9.5.</u>

...

11 Glossary

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Consumption Decrease Price: A price specified in items (h)(vi)(1) or (2), (i)(xA)(3) or (i)(xA)(4) of <u>Appendix 1</u><u>Standing Data</u>, accepted by AEMO under section 6.11A, to apply in forming the Non-Balancing Dispatch Merit Order for a Trading Interval for a Dispatchable Load or Demand Side Programme and in the calculation of the Non-Balancing Facility Dispatch Instruction Payment for that Dispatchable Load or Demand Side Programme for that Trading Interval.

Consumption Increase Price: A price specified in items (i)(xA)(1) or (i)(xA)(2) of <u>Appendix 1Standing Data</u>, which must be not less than the Minimum STEM Price, not more than the Alternative Maximum STEM Price to apply in forming the Non-Balancing Dispatch Merit Order for a Trading Interval for a Dispatchable Load and in the calculation of the Non-Balancing Facility Dispatch Instruction Payment for that Dispatchable Load for that Trading Interval, which varies for Peak Trading Intervals and Off-Peak Trading Intervals.

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DSM Reserve Capacity Price: The price that will be paid per DSM Capacity Credit for a Capacity Year.- It equals:

(a) the Expected DSM Dispatch Quantity for that Capacity Year plus 0.5-MWh; multiplied by

(b) the DSM Activation Price for that Capacity Year.

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Extra Consumption Decrease Price: A price specified in item (h)(vi)(3) and (4) of <u>Appendix 1Standing Data</u>, accepted by AEMO under section 6.11A, to apply in forming the Non-Balancing Dispatch Merit Order for a Trading Interval for a Demand Side Programme and in the calculation of the Non-Balancing Facility Dispatch Instruction Payment for that Demand Side Programme for that Trading Interval.

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Maximum Participant Generation Refund: The total amount of the Capacity Credit payments paid or to be paid under these Market Rules to a Market Participant in relation to its generating Facilities and in relation to a Capacity Year assuming that—

- (a) AEMO acquires all of the Capacity Credits held by the Market Participant in relation to its generating Facilities; and
- (b) the cost of each Capacity Credit so acquired is determined in accordance with clauses 4.28.2(b), 4.28.2(c) and 4.28.2(d) (as applicable).



Appendix A. Further Amendments to the Proposed Amending Rules

The Rule Change Panel made some amendments to the proposed Amending Rules following the consultation period. These changes are as follows (deleted text, added text):

- 4.26.3. The Generation Capacity Cost Refund for Trading Interval t in Capacity Year y for a Market Participant p holding Capacity Credits associated with a generation system is the lesser of—
 - the Maximum Participant Generation Refund determined for Market Participant p and Capacity Year y less all Generation Capacity Cost Refunds applicable to Market Participant p in previous Trading Interval t falling in Capacity Year y; and
 - (b) the Generation Reserve Capacity Deficit Refund for Market Participant p and Trading Interval t, plus the Net STEM Refund in Trading Interval t for Market Participant p,

where the Net STEM Refund is calculated as follows-

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N STEM Refund(p, t) = TIRR weighted(p, t) × N STEM Short(p, t)
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<u>N STEM Refund(p,t) = TIRR weighted(p,t) × N STEM Short(p,t)</u>

Where-

- i. N STEM Refund(p, t) is the Net STEM Refund for Market Participant p in Trading Interval t;
- TIRR weighted(p, t) is the weighted average of the Trading Interval Refund Rate in Trading Interval t for each Facility that Market Participant p holds Capacity Credits for and is calculated as follows—

 $\frac{\text{TIRR weighted}(p, t) = \sum_{f \in F} \frac{\text{TIRR}(f, t) \times \text{CC}(f, t)}{\sum_{f \in F} \text{CC}(f, t)}}$

$$\underline{\text{TIRR weighted}(p, t)} = \sum_{f \in F} \frac{\text{TIRR}(f, t) \times \text{CC}(f, t)}{\sum_{f \in F} \text{CC}(f, t)}$$

where---

- 1. F is the set of Scheduled Generators registered to Market Participant p and f is a Facility within that set;
- 2. TIRR(f, t) is the Trading Interval Refund Rate for Facility f in Trading Interval t; and
- 3. CC(f,t) is the number of Capacity Credits associated with Facility f in Trading Interval t; and
- iii. N STEM Short(p, t) is the Net STEM Shortfall for Market Participant p in Trading Interval t.

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9.7.1. The Reserve Capacity settlement amount for Market Participant p for Trading Month m isRCSA(p,m) = Capacity Provider Payment(p,m)— Capacity Purchaser Payment(p,m)

9.7.1. The Reserve Capacity settlement amount for Market Participant p for Trading Month m is—

> <u>RCSA(p,m) = Capacity_Provider_Payment(p,m) –</u> <u>Capacity_Purchaser_Payment(p,m)</u>

Where-

<u>Capacity_Provider_Payment(p,m) is calculated in accordance with clause</u> <u>9.7.1A; and</u>

<u>Capacity_Purchaser_Payment(p,m) is calculated in accordance with clause</u> <u>9.7.1B.</u>

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

CCP(p,m) = Participant Capacity Rebate(p,m)

- + Non_Allocated_ Gen_Capacity_Payments (p,m)
- + Non_Allocated_SPA_Payments (p,m)
- Intermittent Load Refund(p,m)
- + Supplementary Capacity Payment(p,m)
- + DSM_Capacity_Payments (p,m)
- + Tranche 2 DSM Dispatch Payments (p,m)
- Capacity Cost Refund(p,m)

Where-

Non_Allocated_Gen_Capacity_Payments =

Monthly Reserve Capacity Price(m) x (CC_NSPA(p,m)-CC_ANSPA(p,m))

Where-

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

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 not covered by Special Price Arrangements and which are allocated to other Market Participants;

Non_Allocated_SPA_Payments =

 $\label{eq:sum} \begin{array}{l} \mbox{Sum}(a \in A, \mbox{ Monthly Special Price}(p,m,a) \ x \ (CC_SPA(p,m,a)-(CC_ASPA(p,m,a))) \end{array}$

Where-



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

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

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

DSM_Capacity_Payments (p,m) =

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

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

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

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

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

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

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

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

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

<u>9.7.1A.</u> For the purposes of clause 9.7.1, Capacity Provider Payment(p,m) for Market Participant p for Trading Month m is—

<u>Capacity Provider Payment(p,m) = Participant Capacity Rebate(p,m)</u>

+ Non Allocated Gen Capacity Payments(p,m)

+ Non Allocated SPA Payments(p,m)

- Intermittent Load Refund(p,m)

+ Supplementary Capacity Payment(p,m)

+ DSM Capacity Payments(p,m)

+ Tranche 2_DSM_Dispatch_Payments(p,m) - Capacity_Cost_Refund(p,m)

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);

<u>Non_Allocated_Gen_Capacity_Payments(p,m) =</u> <u>Monthly_Reserve_Capacity_Price(m) × (CC_NSPA(p,m) –</u> <u>CC_ANSPA(p,m))</u>

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

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);

DSM_Capacity_Payments(p,m) =

DSM_Capacity_Credits(p,m) × Monthly_DSM_Reserve_Capacity_Price(m)

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

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

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;

<u>CC_NSPA(p,m) is the number of Capacity Credits held by Market Participant p in</u> <u>Trading Month m that are not covered by Special Price Arrangements and are not</u> <u>DSM Capacity Credits;</u>

<u>CC_ANSPA(p,m) is the number of Capacity Credits held by Market Participant p in</u> <u>Trading Month m that are not covered by Special Price Arrangements and which</u> <u>are allocated to other Market Participants;</u>

<u>A is the set of all Special Price Arrangements associated with a Facility where "a"</u> 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;

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

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.

9.7.1B. For the purposes of clause 9.7.1, Capacity Purchaser Payment(p.m) is-

CPP(p,m) = Targeted Reserve Capacity Cost(p,m) + Shared Reserve Capacity Cost(p,m) - LF_Capacity_Cost(p,m)

Where-

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

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

LF_Capacity_Cost(p,m) = LF_Capacity_Cost(m) × 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);

Shortfall Share(p,m) = (IRCR(p,m) - Allocated Capacity Credits(p,m)) / Sum(p∈P,(IRCR(p,m) - 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);

Capacity Share(p,m) = IRCR(p,m) / Sum(p∈P,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;

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

<u>9.7.1B.</u> For the purposes of clause 9.7.1, Capacity Purchaser Payment(p,m) for Market Participant p for Trading Month m is—

<u>Capacity_Purchaser_Payment(p,m) = Targeted_Reserve_Capacity_Cost(p,m)</u> + Shared_Reserve_Capacity_Cost(p,m)

– LF_Capacity_Cost(p,m)

Where-

<u>Targeted_Reserve_Capacity_Cost(p,m) =</u> <u>Targeted_Reserve_Capacity_Cost(m) × Shortfall_Share(p,m)</u>

<u>Shared_Reserve_Capacity_Cost(p,m) =</u> <u>Shared_Reserve_Capacity_Cost(m) × Capacity_Share(p,m)</u>

LF_Capacity_Cost(p,m) =

LF_Capacity_Cost(m) × 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);

Shortfall_Share(p,m) =

<u>(IRCR(p,m) – Allocated_Capacity_Credits(p,m)) /</u> Sum(p∈P,(IRCR(p,m) – Allocated_Capacity_Credits(p,m)))</u>

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

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

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 Capacity Credits allocated to Market Participant p in Trading Month m in accordance with sections 9.4 and 9.5.



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