

Commencement Notice: Wholesale Electricity Market Rules

Amending Rules RC_2017_06

These Amending Rules were made under the *Electricity Industry Act 2004* and the *Electricity Industry (Wholesale Electricity Market) Regulations 2004* on 27 June 2018.

These Amending Rules commence at 8:00 AM on 1 June 2019.

The following clauses are amended (deleted wording, new wording):

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2.31.13. AEMO may only reject an application if:

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- (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
- 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.

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2.33.5. AEMO must prescribe a Facility transfer form that requires an applicant for transfer of a Facility to provide the following:

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(f) evidence to AEMO's satisfaction 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;

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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.

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- 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).

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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.

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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
- 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;

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- 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:
 - 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.
 - 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.

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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.

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- 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.

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- 4.26.2CA. The Relevant Demand of a Demand Side Programme for a Trading Day d in a Capacity Year is the lesser of:ef—
 - (a) a value determined for the Demand Side Programme using the methodology set out in Appendix 10; orand
 - (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.

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- (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:ef—
 - 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.

- 4.28.6. [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(c) 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:

- 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 <u>for an Intermittent Load</u> 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 4.28.8(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:
 - 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).

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- 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.

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- 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—
 - 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. 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:
 - 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 <u>clause</u> 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]

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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 <u>eachthe</u> Market <u>ParticipantCustomer</u> to which the Capacity Credits are to be allocated for settlement purposes, which may <u>include be</u> 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.

...

- 9.5.3. 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—

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)
- Capacity Cost Refund(p,m)
- + Over Allocation Payment(p,m)

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);

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);

```
Over Allocation Payment(p,m) =
    max (0, Allocated Capacity Credits(p,m) - IRCR(p,m)) ×
    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_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;

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—

```
Capacity_Purchaser_Payment(p,m) = Targeted_Reserve_Capacity_Cost(p,m)
```

- + Shared_Reserve_Capacity_Cost(p,m)
- LF_Capacity_Cost(p,m)

where: 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) =  \frac{(\max(0, \mathsf{IRCR}(p,m) - \mathsf{Allocated\_Capacity\_Credits}(p,m)))}{\mathsf{Sum}(p \in \mathsf{P}, (\max(0, \mathsf{IRCR}(p,m) - \mathsf{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 \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 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

 <u>Acceptance</u> 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 madesubmitted, 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 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):
 - 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 10 Step 10 of Appendix 5;

...

. . .

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.

<u>4 Peak SWIS Trading Intervals</u>: 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.



<u>Capacity Credit Allocation Acceptance</u>: 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 <u>Indicative</u> Individual Reserve Capacity Requirement determined in accordance with Step 11 of Appendix 5.

Initial Time: Has the meaning given in clause 4.1.25 st 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: <u>Individual</u> Intermittent Load <u>Individual</u> 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 <u>Trading Month n</u> 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 Reg(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:

- <u>Individual Reserve Capacity Requirement Contributions as required for the</u> 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.

STEPStep 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:

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

STEPStep 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) 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



STEPStep 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 <u>peakPeak SWIS</u> Trading Intervals

STEPStep 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.

STEPStep 5: When determining the Individual Reserve Capacity Requirements for Trading Month n-ildentify meters that were not registered with AEMO during one or more of the 12 pPeak 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 <u>pP</u>eak 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 <u>pP</u>eak 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.

STEPStep 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 <u>pP</u>eak 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 between the end of the preceding Hot Season and the end of Trading Month n-3 from the number of non-interval or accumulation meters connected between the end of the preceding Hot Season and the end of 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.



STEPStep 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.

STEPStep 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:

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TDLn(v^*) = TDL(v^*) - Sum(v \in NWNM, NMTDCR(v) \times d(v,q))
Where
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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:

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\begin{split} & \text{NTDLRCR(i)} = \text{Sum}(\textbf{u}, \text{NTDL}(\textbf{u}) \times \textbf{d}(\textbf{u}, \textbf{i})) \times \text{NTDL}_{\textbf{Ratio}} \\ & \text{TDLRCR(i)} = (\text{Sum}(\textbf{v}, \text{MTDL}(\textbf{v}) \times \textbf{d}(\textbf{v}, \textbf{i})) - \text{DSM(i)}) \times \text{TDL}_{\textbf{Ratio}} \\ & \text{ILRCR(i)} = \text{Sum}(\textbf{w}, \text{IILRCR}(\textbf{w}) \times \textbf{d}(\textbf{w}, \textbf{i})) \\ & \text{NRR} = \text{RR} - \text{Sum}(\textbf{i}, \text{ILRCR(i)}) \\ & \text{where} \\ & \text{NTDL}_{\textbf{Ratio}} = \text{NRR/FL} \\ & \text{TDL}_{\textbf{Ratio}} = (\text{NRR} - \text{Sum}(\textbf{j}, \text{NTDLRCR}(\textbf{j})))/\text{Sum}(\textbf{j}, \text{Sum}(\textbf{v}, \text{MTDL}(\textbf{v}) \times \textbf{d}(\textbf{v}, \textbf{j})) \\ & - - \text{DSM(j)}) \\ & \text{i indicates Market Customers} \end{split}
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ILRCR(i) is the Intermittent Load Reserve Capacity Requirement for Market Customer i.

MTDL(v) = TDL(v) for all v except v* and MTLD(v) = TDLn(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).

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:

 $ILRCR(i) = Sum(w, IILRCR(w) \times d(w,i))$

Step 8A: Calculate:

NRR = RR - Sum(i, ILRCR(i))

NTDL Ratio = NRR / FL

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

 $NTDLRCR(i) = Sum(u, NTDL(u) \times d(u,i)) \times NTDL Ratio$

Step 8C: Calculate:

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

where

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

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

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

 $TDLRCR(i) = (Sum(v, MTDL(v) \times d(v,i)) - DSM(i)) \times TDL Ratio$

STEPStep 9: For each Market Customer, i, calculate

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

STEP 10: The Individual Reserve Capacity Requirement of Market Customer i for Trading Month n of a Capacity Year equals (X(i) × Total Ratio) where—

Total Ratio = RR Transitional/Y

Y = 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:

Total Ratio = RR / 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) × Total Ratio

STEPStep 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 (NTDL(u) x NTDL_Ratio x 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 (TDL(v) x TDL_Ratio x Total_Ratio);
- (c) for meter u at a new connection point identified in Step 5 measuring Non-Temperature Dependent Load equals (NMNTCR(u) x Total Ratio); and
- (d) for meter v at a new connection point identified in Step 5 measuring Temperature Dependent Load equals (NMTDCR(v) x 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 <u>pP</u>eak SWIS Trading Intervals in a Trading Month are the <u>4 highest</u> 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. <u>4 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23B for that Trading Month.</u>

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 <u>list including identity of</u> 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:

- 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 <u>pP</u>eak 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:

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.