

## **Commencement Notice:** Wholesale Electricity Market Rules

Amending Rules RC\_2017\_06

These Amending Rules were made under the

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 SWISTrading Intervals within five Business Days after the Interval Meter Deadline for<br/>the relevant Trading Month. For the avoidance of doubt, AEMO must not revise the<br/>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 at 9I 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 M apphythemase of the bsequent Reserve Capacity Cycle, by 5ctart o cf the rele
  - (a) in the case of the first Reserve Capacity Cycle, the earlieot



### 4.14. Market Participant Auction



- (c) The level of coverage of the <u>Short Term</u> 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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- 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 <u>of:of</u>
  - i. the Reserve Capacity Requirement applicable to that Trading Month; and
  - ii. total Capacity Credits assigned to Facilities minus the total DSM Capacity Credits,

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

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

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

- 4.28.2. For the purposes of clause <u>4.28.1:</u>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



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 <u>must allocate this cost to</u> <u>Market Customers in accordance with section 9.7.AEMO must allocate this total</u> 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.

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- 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. <u>For each Trading Month, AEMO must determine and publish an initial Individual</u> 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 <u>determined using the methodology described in Appendix 5.</u>÷
  - (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 <u>Indicative</u> Individual Reserve Capacity Requirements in accordance with clause <u>4.28.7</u> <u>4.28.6</u> and <u>updating</u> Individual Reserve Capacity Requirements in accordance with clause <u>4.28.11</u> <u>4.28.7</u> for the <u>Capacity Year starting on 1 October of Year 3 of a Reserve Capacity Cycle</u>, Market Customers must, by the date and time specified in clause <u>4.1.23 or no later</u> than by <u>5:00 PM on the Business Day being twenty Business Days prior to the</u> date and time specified in clause <u>4.1.28(b)</u>, provide to AEMO:
  - (a) a list of the identity of all interval meters associated with that Market Customer that the Market Customer wants AEMO to treat as Non-Temperature Dependent Loads;
  - (b) details of any Demand Side Management measures that the Market Customer has implemented since the previous Hot Season, including the expected MW reduction in peak consumption resulting from those measures; and
  - (c) nominations of capacity requirements for Intermittent Loads, expressed in MW, where the nominated quantity cannot exceed the greater of:



- i. the maximum allowed level of Intermittent Load specified in Standing Data for that Intermittent Load at the time of providing the data; and
- ii.- the maximum Contractual Maximum Demand expected to be associated with that Intermittent Load during the Capacity Year to which the nomination relates. -The Market Customer must provide evidence to AEMO of this Contractual Maximum Demand level unless AEMO has previously been provided with that evidence.

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

- 4.28.8A. Any <u>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 <u>4.1.28(b)</u> <u>4.1.23C</u> where that date and time relates to the Trading Month in which the Intermittent Load will first commence operation.</u>
- 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,

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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.
- <u>4.28.11.</u> 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 <u>initially</u> calculating, and subsequently revising, <u>Indicative Individual Reserve Capacity Requirements and</u> 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:



- (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 <u>m:m—</u>
  - i. the quantity of Capacity Credits (including Capacity Credits from



- 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



- <u>9.4.3.</u> 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 AllocationSubmission for the Market Generator for the relevant Trading Month<br/>that is approved by AEMO but not yet accepted by the relevant<br/>Market Customer (excluding any Capacity Credit Allocation<br/>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.
- <u>9.4.6.</u> 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).



- <u>9.4.8. A Capacity Credit Allocation Acceptance must be submitted in the form specified</u> 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



- 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:



- (b) the identity of each<u>the</u> Market Participant<u>Customer</u> to which the Capacity Credits are to be allocated for settlement purposes, which may <u>includebe</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.

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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.

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9.7.1A. For the purposes of clause 9.7.1, Capacity\_Provider\_Payment(p,m) for Market that



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);



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



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.

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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 comm



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;



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

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

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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.

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Individual Intermittent Load Reserve Capacity Requirement: Means the Individual ...



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

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



# Appendix 5: Individual Reserve Capacity Requirements

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

Individual Reserve Capacity Requirement Contributions as required for the determination of Relevant Demands under clause 4.26.2CA;

Indicative Individual Reserve Capacity Requirements as required under clause 4.28.6;

Individual Reserve Capacity Requirements as required under clause 4.28.7; and

revised Individual Reserve Capacity Requirements as required under clause 4.28.11A.

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

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

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In Steps 1 and 5 the demand in a Trading Interval is measured as the Total Sent Out Generation in that Trading Interval.

In Step 1 the maximum demand for a Trading Day is the highest demand measured for any Trading Interval in that Trading Day.

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

The 4 Peak SWIS Trading Intervals for a Trading Month to be used in the calculations are the 4 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23B for that Trading Month.

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

STEP<u>Step</u> 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. <u>Calculate:</u>

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

 $FL = FL_RCR \times RR / RCR$ 

where:

<u>RCR is the Reserve Capacity Requirement for the relevant Reserve</u> <u>Capacity Cycle</u>

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

<u>DSM\_CC is the total number of DSM Capacity Credits assigned for Trading</u> <u>Month n at the time of the calculation</u>

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

STEP<u>Step</u> 2: For each meter, u, measuring Non-Temperature Dependent Load <u>that was</u> 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 peakPeak SWIS Trading Intervals



<u>STEPStep</u> 3: For each meter, v, measuring Temperature Dependent Load <u>that was</u> <u>registered with AEMO for all of the 12 Peak SWIS Trading Intervals</u> determine TDL(v) and  $\frac{d(v,i)}{v}$ , where:

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

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

STEP<u>Step</u> 5: When determining the Individual Reserve Capacity Requirements for Trading Month n iIdentify meters that were not registered with AEMO during one or more of the 12 <u>PP</u>eak 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



<u>STEPStep</u> 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 Lo of days



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) × d(u,i)) × NTDL\_Ratio

Step 8C: Calculate:

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

where

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

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

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

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

STEPStep 9: For each Market Customer, i, calculate

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

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-



## Appendix 5A: Non-Temperature Dependent Load Requirements



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

Step 3:

If a load was not accepted under Step 1 as a Non-Temperature Dependent Load for Trading Month (n); and

If the load was accepted under Step 2, or previously under this Step 3, as a Non-Temperature Dependent Load for Trading Month (n-1),

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

(a) the median value of the metered consumption for that load was in excess of 1.0\_MWh, calculated over the set of Trading Intervals defined as the 4 <u>pP</u>eak 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

