Exposure Draft – Draft Wholesale Electricity Market (WEM) Amending Rules

Reserve Capacity Mechanism Review Outcomes

Explanatory Note

This is an Exposure Draft of proposed amendments to the WEM Rules to implement the outcomes of the review of the WEM Reserve Capacity Mechanism.

The Coordinator of Energy has conducted a review of the Reserve Capacity Mechanism in the WEM. Energy Policy WA (EPWA) has published two papers setting out the outcomes of the review. They are referred to in explanatory notes as Information Paper information paper one and information paper two.

An overview of the draft changes to the WEM Rules is outlined below.

Changes to introduce a new Flexible Capacity product

The most wide ranging changes to the WEM Rules implement a second Reserve Capacity product: Flexible Capacity. The existing Reserve Capacity product is renamed to Peak Capacity.

The Flexible Capacity product can be provided by fast starting, flexible facilities, but only if they also provide Peak Capacity. A Facility can hold Peak Capacity Credits and Flexible Capacity Credits for the same MW of capacity, but it cannot hold more Flexible Capacity Credits than Peak Capacity Credits. For example, a Facility with 100 MW nameplate capacity could receive up to 100 MW of Peak Capacity Credits and 100 MW of Flexible Capacity Credits. Assuming it met its capacity obligations, it would be paid:

- the Peak Capacity Price for its Peak Capacity Credits; and
- the Flexible Capacity Price for its Flexible Capacity Credits.

The capacity prices are calculated using the same shaped price curve, but each product has a different technology underlying the benchmark price, as determined by the Coordinator of Energy. The Flexible Capacity Price is calculated using the price curve, then the Peak Capacity Price is subtracted, to give a “top up” amount for Flexible Capacity.

Each product has separate Peak- and Flexible Reserve Capacity Obligation Quantities. Reserve Capacity Security is held and surrendered only in relation to Peak Capacity Credits. Refunds for failing to provide Flexible Capacity are only applied outside the Hot Season.

Proposed amendments to the WEM Rules also include:

- A new limb to the Planning Criterion in clause 4.5.9;
- Rules for setting a Flexible Reserve Capacity Target, applying for Flexible Certified Reserve Capacity, procuring supplementary Flexible Capacity, and bilateral trading, testing, outages, refunds and settlement for the new product;
- A new appendix 4 to calculate the Flexible Individual Reserve Capacity Requirements used to apportion the costs of procuring Flexible Capacity;
- New defined terms in the Glossary that refer to the two Reserve Capacity products;
- Additional Standing Data requirements for Facilities with Flexible Certified Reserve Capacity.

Changes to introduce Capability Classes

The Availability Classes in the current WEM Rules are retired, and the new WEM Amending Rules introduce three Capability Classes:

- Capability Class 1 is firm capacity that is not energy limited, such as a gas-fired Facility that meets the fuel availability requirements;

- Capability Class 2 is firm capacity with energy or availability limitations, such as a battery, pump storage hydro, a Demand Side Programmes, or a gas-fired facility with limited fuel supply;

- Capability Class 3 is non-firm capacity, such as a wind or solar farm with no associated firming capability.

Changes to Demand Side Programmes

Demand Side Programmes that aggregate more than one Associated Load now receive Certified Reserve Capacity based on a nominated programme size. They can no longer lodge Consumption Deviation Applications, and capacity shortfalls are calculated using actual DSP demand, rather than their Relevant Demand as in the current Rules.

The number of Trading Intervals that a Demand Side Programme must be available for is now calculated each year in accordance with clause 4.5.12.

Demand Side Programmes no longer have their Capacity Credits reduced on failing two Reserve Capacity Tests. They now pay refunds for the failed portion, until either a new test is passed, or the responsible market participant voluntarily surrenders Capacity Credits (in which case it will forfeit a portion of its Reserve Capacity Security).

Changes to the Relevant Level Method

Appendix 9 is completely replaced, introducing a method that first calculates the total CRC to be allocated to the intermittent generation fleet, and then distributes that value in proportion to each Facility performance in previous high demand intervals over a number of years – the same intervals used for the Individual Reserve Capacity Requirement calculations.

Other changes

There is a new Peak Individual Reserve Capacity Requirements calculation. Appendices 4A and 5A are deleted, and Appendix 5 is significantly amended to use the high demand Trading Intervals in each Hot Season.

Participants are no longer required to submit an Expression of Interest to be eligible for Certified Reserve Capacity, resulting in the deletion of clauses 4.8.2 and 4.8.3, and part of clause 4.2.1.

Capacity refunds are now rebated to consuming participants rather than other capacity providers.

A previous draft of these rules was discussed with the RCM Review Working Group in August 2023. Major changes since that version are:

- Indicative Facility Classes are now assessed alongside Certified Reserve Capacity assessments. If AEMO determines a different Indicative Facility Class than the participant assumed when submitting, the participant must provide any additional data required so that AEMO can complete the CRC assessment process.

- Each Electricity Storage Resource will retain its availability duration requirement for five years from commissioning. It will also retain its Peak and Flexible RCOQs, required availability intervals etc. This means there is no need for tracking uplift quantities on either Peak CRC or Peak Capacity Credits.

- 4.25.4CC now includes calculations to ensure a DSP's exposure is 125% of capacity payments, whether through refunds or forfeit of DSP Reserve Capacity Security. The calculations are complex, as they must cater for multiple reductions throughout a Capacity Year.

- Separately Certified Components within a single Facility can now have different Reserve Capacity Prices. This primarily relates to changes in section 4.29 (Reserve Capacity Price), and 4.26 (Refunds);

- Facilities and Separately Certified Components now have separate Peak and Flexible RCOQs.

- The Flexible Reserve Capacity Price now reflects the premium over and above the Peak Reserve Capacity Price, rather than being higher than the peak price.

Deadline for Submissions on the Exposure Draft

Stakeholders are invited to provide written feedback on the Exposure Draft before 5:00pm(AWST), 17 October 2023 by submitting comments to **energymarkets@dmirs.wa.gov.au.**

Mark-up Colour guide for Draft Amending WEM Rules:

The Amending Rules are based on the 29 April 2023 companion version, with the additional changes arising from the Supplementary Capacity Review. The final WEM Amending Rules may need to reflect any further changes introduced following that version of the WEM Rules. As such:

- amendments that delete entire clauses or sections or transitional Amending Rules which are to be deleted prior to the commencement of the new Market are not shown.
- if an amendment only implements a partial deletion of a clause, the clause is shown in green or blue, as applicable

Text in black	Rules that were in force as at 29 April 2023
Text in green	Amending Rules that will commence on a specified date
Text in blue	Amending Rules that have been made but no commencement date has been specified (it is expected that most of these Amending Rules will be commenced close to or at commencement of the new Market).
Text in red	Changes introduced by the Wholesale Electricity Market Amendment (Supplementary Capacity) Rules 2023 and the Wholesale Electricity Market Amendment (Supplementary Capacity No. 2) Rules 2023
Text in orange - underlined ~~and strikethrough~~	New amendments proposed as a result of the Reserve Capacity Mechanism review

Explanatory Notes: The Explanatory Notes are not intended to provide a full description of design already covered in RCM Review information papers. They are primarily to provide context for detailed design decisions that have been made in the course of rule drafting that were not covered in working group meetings or information papers.

Explanatory Note

Transitional provisions are introduced to deal with operations that span the old (before RCM Reform Commencement) and new (after RCM Reform Commencement) capacity regimes:

- capacity for Reserve Capacity Cycles before the commencement of the new RCM regime is treated as Peak Capacity;
- the Relevant Level Method (RLM) is to be calculated based on the Individual Reserve capacity Requirement (IRCR) intervals that would have been calculated under the Post-Amending Rules; and
- Consequential Outages (which no longer exist under the Post Amending Rules) are still accounted for when assessing intermittent facility output for periods when they did exist.

Additional transitional provisions may be required, depending on the sequencing/commencement of these WEM Ameniding Rules.

While the last transitional provision below, requires the Economic Regulation Authority to publish the Benchmark Reserve Capacity Prices for the 2024 Reserve Capacity Cycle by the time of the ESOO publication, this will be revisited once the sequencing of these WEM Amending Rules has been finalised.

1.XX. Specific Transitional Provisions for the Introduction of Peak Capacity and Flexible Capacity

1.XX.1. In this section 1.XX:

Post-Amended Rules: Means the WEM Rules as in force immediately after RCM Reform Commencement.

Pre-New WEM Commencement Rules: Means the WEM Rules as in force immediately before New WEM Commencement Day

1.XX.2 For all Reserve Capacity Cycles up to and including the 2023 Reserve Capacity Cycle:

(a) Capacity Credits issued for Capacity Year 3 of that Reserve Capacity Cycle are deemed to be Peak Capacity Credits;

(b) Certified Reserve Capacity assigned for Capacity Year 3 of that Reserve Capacity Cycle is deemed to be Peak Certified Reserve Capacity;

(c) Facility Monthly Reserve Capacity Prices for Capacity Year 3 of that Reserve Capacity Cycle are deemed to be Facility Monthly Peak Reserve Capacity Prices for Non-Scheduled Facilities and Demand Side Programmes; and

(d) Facility Monthly Reserve Capacity Prices for Capacity Year 3 of that Reserve Capacity Cycle are deemed to be Component Monthly Peak Reserve Capacity Prices for Separately Certified Components of Scheduled Facilities and Semi-Scheduled Facilities.

1.XX.3. For the purposes of step B.4.1 of the Appendix 9, AEMO must use Appendix 5 of the Post-Amended Rules to determine the Peak IRCR Intervals for Capacity Years in the RLM Reference Period that fall before RCM Reform Commencement.

1.XX.4. For the purposes of steps B.1.2 and B.1.3 of Appendix 9, AEMO must estimate the output of a Facility under clause 7.16 of the Post-Amending Rules for any Trading Interval before RCM Reform Commencement in which the Facility was:

(a) affected by a Consequential Outage under the Pre-New WEM Commencement Rules, and AEMO must treat the Facility as being restricted by a a Network limitation; and

(b) a GIA Facility issued an Operating Instruction under a Network Control Service Contract under the Pre-New WEM Commencement Rules, and AEMO must treat the Facility as having been restricted by a Dispatch Instruction.

1.XX.5 The Economic Regulation Authority must publish the Benchmark Reserve Capacity Prices for the 2024 Reserve Capacity Cycle by the time specified in clause 4.1.8.

…

2.16.2A. The Coordinator and the Economic Regulation Authority, as relevant, must:

(a) in the case of the Coordinator and the Economic Regulation Authority, provide to AEMO a combined list of data items to be included by AEMO in the Market Surveillance Data Catalogue, being information required by the Coordinator and the Economic Regulation Authority to perform their functions under these WEM Rules;

(aA) in the case of the Economic Regulation Authority, provide to AEMO a list of the WEM Rules that AEMO must monitor for compliance, and is required to report any alleged breaches of, to the Economic Regulation Authority; and

(b) publish a combined list of the data items under clause 2.16.2A(a) and WEM Rules under 2.16.2A(aA) on their respective websites.

2.16.2AA. In developing the list of WEM Rules under clause 2.16.2A(aA) and for any subsequent updates to the list, the Economic Regulation Authority must, in consultation with AEMO:

(a) reach agreement in respect of the proposed date and time for AEMO to commence monitoring each of the WEM Rules on the list, which must allow a reasonable time for AEMO to implement any required monitoring changes; and

(b) consider the practicality and cost for AEMO to monitor compliance with each of the WEM Rules on the list.

Explanatory Note

AEMO must monitor that participants who are awarded Flexible Capacity Credits apply for FCESS accreditation, and that participants do not use behind the meter ESR to both receive capacity credits for the ESR and use the ESR to reduce their IRCR in the same Capacity Year.

2.16.2AB The ERA must include clauses 4.12.2(d) and 7.10.6A on the list of WEM Rules provided under clause 2.16.2A(aA).

…

2.16.13B. In carrying out its responsibilities under clause 2.16.13A, the Coordinator must also monitor:

(a) the effectiveness of the compliance monitoring and enforcement measures in the WEM Rules and Regulations, including, but not limited to:

i. the effectiveness of the Economic Regulation Authority's surveillance activities under sections 2.16A to 2.16D; and

ii. the appropriateness of the parameters for determining a Material Portfolio and Material Constrained Portfolio under clauses 2.16C.1 and 2.16C.2;

(b) the effectiveness of AEMO in carrying out its functions under the Regulations, the WEM Rules and WEM Procedures;

(c) the effectiveness of Network Operators in carrying out their functions under the WEM Rules and WEM Procedures; and

(d) the efficiency and effectiveness of the methodologies for determining the Market Price Limits and the Benchmark Reserve Capacity Prices.

…

2.26. Economic Regulation Authority Reviews of Market Price Limits and the Methodology for Setting the Benchmark Reserve Capacity Prices

…

2.26.3. At least once in every five years, the Economic Regulation Authority must review the methodology for setting the Benchmark Reserve Capacity Prices. A review must examine:

(a) the appropriateness of the parameters and methodology in section 4.16 and the WEM Procedure referred to in clause 4.16.3 for recalculating the Benchmark Reserve Capacity Prices; and

(b) any other matters which the Economic Regulation Authority considers relevant.

2.26.3A. The Economic Regulation Authority must review the Reserve Capacity Price Factors at the same time as each review of the Benchmark Reserve Capacity Prices under clause 2.26.3. A review must examine:

(a) whether the Reserve Capacity Price Factors efficiently signal the long-term economic value of incremental or excess Reserve Capacity in the Wholesale Electricity Market;

(b) whether the Reserve Capacity Prices calculated using the Reserve Capacity Price Factors are ~~is~~ consistent with the Wholesale Market Objectives; and

(c) any other matters the Economic Regulation Authority considers to be relevant.

…

2.29.5E. AEMO must accept an application submitted under clause 2.29.5B unless:

(a) AEMO considers that the evidence provided by the Market Participant under clauses 2.29.5B and 2.29.5C is not satisfactory;

(b) the relevant Non-Dispatchable Load is not equipped with interval metering;

(c) [Blank]

(d) for an application relating to a Demand Side Programme, the relevant Non-Dispatchable Load is registered as an Intermittent Load for any part of the proposed Association Period;

(e) subject to clause 2.29.2A, the relevant Non-Dispatchable Load is already associated with a Demand Side Programme or an Interruptible Load registered to a different Market Participant for any part of the proposed Association Period;

(f) during the same Capacity Year, the relevant Non-Dispatchable Load was an Associated Load of another Demand Side Programme and, while it was so associated:

i. the other Demand Side Programme passed a Reserve Capacity Test or a Verification Test; or

ii. any part of DSM ~~DSP~~ Reserve Capacity Security associated with the other Demand Side Programme was returned or relinquished under:

1. clause 4.13A.19 by operation of clause 4.13A.18; or

2. clause 4.13A.24; or

(g) the Transmission Node Identifier for the relevant Non-Dispatchable Load does not match the single Transmission Node Identifier for the Demand Side Programme.

…

2.30.5. AEMO must only allow the aggregation of Facilities pursuant to an application under clause 2.30.1 if, in its opinion, the proposed Aggregated Facility meets the following criteria:

…

Explanatory Note

With the introduction of separate capacity prices for Separately Certified Components, aggregated facilities can include components with different prices. This is still not the case for Non-Scheduled Facilities, which have a single Facility price.

(f) the Facility Monthly Peak Reserve Capacity Price applicable to each of the Non-Scheduled Facilities within the proposed Aggregated Facility is the same, and is expected to remain the same, from and including the current Reserve Capacity Cycle;

…

Explanatory Note

The distinction between Temperature Dependent Loads and Non-Temperature Dependent Loads is no longer relevant.

2.30B.9. For the purpose of defining Metered Schedules, each Facility containing an Intermittent Load is represented by the following components:

(a) ~~where~~ if the Intermittent Load is part of a Registered Facility, a Registered Facility component;

(b) ~~where~~ if the Load was deemed to be an Intermittent Load under clause 1.48.2, an Intermittent Load component; and

(c) a remaining Load component~~, which may be Temperature Dependent or Non-Temperature Dependent~~.

…

Explanatory Note

AEMO must publish system-wide ramp forecasts to allow market participants to predict Flexible IRCR Intervals.

3.16.7. As soon as practicable following the publication of the Medium Term PASA, AEMO must publish on the WEM Website ~~the following forecast demand information for the SWIS~~ for each Trading Day in the 36 month period included in the most recently published Medium Term PASA:

(a) AEMO's determination of the most probable daily peak demand; ~~and~~

(b) any alternative demand forecasts as specified in the WEM Procedure referred to in clause 3.16.10~~,~~; and

(c) AEMO's determination of the most probable daily highest Four-Hour Demand Increase.

~~for each Trading Day in the 36 month period included in the most recently published Medium Term PASA~~.

…

3.18.4. AEMO must develop a WEM Procedure dealing with:

(a) the submission, evaluation and approval of Outage Plans, including applicable timelines, which must include a requirement for AEMO to notify a Market Participant or Network Operator where AEMO determines that an Outage Plan or Planned Outage is at risk of rejection, or the Outage Facility is recalled to service from a Planned Outage;

(b) the circumstances where a Facility has failed to comply with a Dispatch Instruction for the purpose of clause 3.18.3(f), which should also include where the Facility has a delayed response to a Dispatch Instruction;

(c) any requirements for Rule Participants to notify or seek consent to commence or complete an Outage, including any relevant processes to be followed where the Facility or item of equipment is being taken out of service, or returned to service;

(d) Outage coordination, which must include:

i. for the purposes of clause 3.18C.3, specifying the matters to be considered when determining whether an Impacted Participant has been unduly impacted by the Outage Plan of an Impacting Participant; and

ii. the processes and any other matters referred to in clause 3.18C.12;

(e) information requirements for processes relating to Outages, including, but not limited to:

i. minimum information requirements for an Outage Plan; and

ii. any other supporting information that may be used by AEMO to evaluate or assess an Outage Plan;

(f) forecast assumptions and the methodology to be used for Outage Evaluations, which may differ across evaluation timeframes;

(g) the methodology for assessing whether there would be a shortfall of available accredited capacity to provide Essential System Services if an Outage Plan is approved;

(gA) the methodology for assessing whether there would be a shortfall of Flexible Capacity if an Outage Plan is approved;

(h) publication of Outage-related information, which must include the information in clauses 3.22.1, 3.22.1A and 3.22.2; and

(i) any other matters relating to this section 3.18 and sections 3.18A to 3.21.

…

Explanatory Note

Separate CAPO/CAFO calculations are required for Peak Capacity and Flexible Capacity.

Remaining Available Capacity relates to whatever Outage Capability is referenced. The key outage capability for PCQ is energy.

3.21.6. The Peak Capacity Outage Quantity for a Planned Outage or Forced Outage o of a Separately Certified Component c of a Registered Facility that is a Non-Intermittent Generating System or Electric Storage Resource for a Dispatch Interval DI that is included in Planned Outage or Forced Outage o is:

PCQ(c,DI,o)= PrevRAC(c,DI,o) – RAC(c,DI,o)

where:

(a) PrevRAC(c,DI,o) is equal to:

i. MaxCap(c,DI), if Planned Outage or Forced Outage o was the first relevant outage to be submitted; or

ii. otherwise, the applicable Remaining Available Capacity for the relevant outage that was submitted most recently prior to the submission time of Planned Outage or Forced Outage o,

where relevant outage means a Planned Outage or Forced Outage for energy for Separately Certified Component c that includes Dispatch Interval DI;

(b) RAC(c,DI,o) is the applicable Remaining Available Capacity for Planned Outage or Forced Outage o;

(c) MaxCap(c,DI) is:

i. if Separately Certified Component c is a Non-Intermittent Generating System, the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant

Network from the Non-Intermittent Generating System under optimal conditions, as specified under Appendix 1(b)(x) or Appendix 1(c)(x) as applicable; or

Explanatory Note

The Peak Electric Storage Obligation Duration can now be different for different Electric Storage Resources, depending on when they entered the WEM.

ii. if Separately Certified Component c is an Electric Storage Resource, the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply across the Peak Electric Storage Resource Obligation Duration to the relevant Network from the Electric Storage Resource under optimal conditions, as specified under Appendix 1(b)(xii) or Appendix 1(c)(xii) as applicable; and

(d) the applicable Remaining Available Capacity for a Planned Outage or Forced Outage is the Remaining Available Capacity under the Planned Outage or Forced Outage for Separately Certified Component c in Dispatch Interval DI for the applicable energy Outage Capability, which is:

i. if Separately Certified Component c is a Non-Intermittent Generating System, sent out capacity, net of embedded and Parasitic Loads, available for supply to the relevant Network from the Non-Intermittent Generating System; or

ii. if Separately Certified Component c is an Electric Storage Resource, sent out capacity, net of embedded and Parasitic Loads, available for supply across the Peak Electric Storage Resource Obligation Duration to the relevant Network from the Electric Storage Resource.

3.21.7. The Peak Capacity Adjusted Forced Outage Quantity for Dispatch Interval DI for Separately Certified Component c of a Registered Facility is:

(a) ~~where~~ if Separately Certified Component c is an Intermittent Generating System:

$$\mathrm{PCAFO}(\mathrm{c},\mathrm{DI}) = 0$$

(b) otherwise:

$$PCAFO(c,DI) = max\left(0, \sum_{o \in \boldsymbol{FO}} PCQ(c,DI,o) - \left(MaxCap(c,DI) - DefPRCOQ(c,DI)\right)\right)$$

where:

i. o ∈ FO denotes all Forced Outages o for Separately Certified Component c that include Dispatch Interval DI;

ii. PCQ(c,DI,o) is the Peak Capacity Outage Quantity for Outage o of Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.6;

iii. MaxCap(c,DI) is:

1. if Separately Certified Component c is a Non-Intermittent Generating System, the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Non-Intermittent Generating System under optimal conditions, as specified under Appendix 1(b)(x) or Appendix 1(c)(x) as applicable; or

2. if Separately Certified Component c is an Electric Storage Resource, the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply across the Peak Electric Storage Resource Obligation Duration to the relevant Network from the Electric Storage Resource under optimal conditions, as specified under Appendix 1(b)(xii) or Appendix 1(c)(xii) as applicable; and

iv. DefPRCOQ(c,DI) is the Peak Reserve Capacity Obligation Quantity that would apply to Separately Certified Component c in Dispatch Interval DI if the Separately Certified Component was not subject to an Outage or an approved Commissioning Test Plan.

3.21.7A. The Peak Capacity Adjusted Forced Outage Quantity for Trading Interval t for Separately Certified Component c of a Registered Facility is:

$$\mathrm{PCAFO}(c,t) = \frac{\sum_{DI \in t} \mathrm{PCAFO}(c,DI)}{6}$$

where:

(a) DI ∈ t denotes all Dispatch Intervals DI in Trading Interval t; and

(b) PCAFO(c,DI) is the Peak Capacity Adjusted Forced Outage Quantity for Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.7.

3.21.7B. The Peak Capacity Adjusted Forced Outage Quantity for Trading Interval t for Registered Facility f is:

(a) where no Peak Capacity Credits are assigned to Registered Facility f in Trading Interval t or Registered Facility f is a Non-Scheduled Facility:

$$\mathrm{PCAFO}(f,t) = 0$$

(b) otherwise:

$$\mathrm{PCAFO}(f,t) = \sum_{c \in f} \mathrm{PCAFO}(c,t)$$

where:

i. c ∈ f denotes all Separately Certified Components c of Facility f; and

ii. PCAFO(c,t) is the Peak Capacity Adjusted Forced Outage Quantity for Separately Certified Component c in Trading Interval t as calculated in clause 3.21.7A.

3.21.7C. The Peak Capacity Adjusted Forced Outage Quantity for Dispatch Interval DI for Registered Facility f is:

(a) ~~where~~ if no Peak Capacity Credits are assigned to Registered Facility f in Dispatch Interval DI or Registered Facility f is a Non-Scheduled Facility:

$$\mathrm{PCAFO}(\mathrm{f},\mathrm{DI}) = 0$$

(b) otherwise:

$$\mathrm{PCAFO}(\mathrm{f},\mathrm{DI}) = \sum_{\mathrm{c}\in\mathrm{f}} \mathrm{PCAFO}(\mathrm{c},\mathrm{DI})$$

where:

i. c ∈ f denotes all Separately Certified Components c of Facility f; and

ii. PCAFO(c,DI) is the Peak Capacity Adjusted Forced Outage Quantity for Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.7.

3.21.8. The Peak Capacity Adjusted Planned Outage Quantity for Dispatch Interval DI for Separately Certified Component c of a Registered Facility is:

(a) ~~where~~ if Separately Certified Component c is an Intermittent Generating System:

$$\mathrm{PCAPO}(\mathrm{c},\mathrm{DI}) = 0$$

(b) otherwise:

$$PCAPO(c,DI) = max\left(0, \sum_{o\in \boldsymbol{PO}} PCQ(c,DI,o) - max\left(0, MaxCap(c,DI) - DefPRCOQ(c,DI) - \sum_{o\in \boldsymbol{FO}} PCQ(c,DI,o)\right)\right)$$

where:

i. o ∈ PO denotes all Planned Outages o for Separately Certified Component c that include Dispatch Interval DI;

ii. o ∈ FO denotes all Forced Outages o for Separately Certified Component c that include Dispatch Interval DI;

iii. PCQ(c,DI,o) is the Peak Capacity Outage Quantity for Outage o of Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.6;

iv. MaxCap(c,DI) is:

1. if Separately Certified Component c is a Non-Intermittent Generating System, the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Non-Intermittent Generating System under optimal conditions, as specified under Appendix 1(b)(x) or Appendix 1(c)(x) as applicable; or

2. if Separately Certified Component c is an Electric Storage Resource, the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply across the Peak Electric Storage Resource Obligation Duration to the relevant Network from the Electric Storage Resource under optimal conditions, as specified under Appendix 1(b)(xii) or Appendix 1(c)(xii) as applicable; and

v. DefPRCOQ(c,DI) is the Peak Reserve Capacity Obligation Quantity that would apply to Separately Certified Component c in Dispatch Interval DI if the Separately Certified Component was not subject to an Outage or an approved Commissioning Test Plan.

3.21.8A. The Peak Capacity Adjusted Planned Outage Quantity for Trading Interval t for Separately Certified Component c of a Registered Facility is:

$$\mathrm{PCAPO}(c,t) = \frac{\sum_{DI \in t} \mathrm{PCAPO}(c,DI)}{6}$$

where:

(a) DI ∈ t denotes all Dispatch Intervals DI in Trading Interval t; and

(b) PCAPO(c,DI) is the Peak Capacity Adjusted Planned Outage Quantity for Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.8.

3.21.8B. The Peak Capacity Adjusted Planned Outage Quantity for Trading Interval t for Registered Facility f is:

(a) ~~where~~ if no Peak Capacity Credits are assigned to Registered Facility f in Trading Interval t or Registered Facility f is a Non-Scheduled Facility:

$$\mathrm{PCAPO}(f,t) = 0$$

(b) otherwise:

$$\mathrm{PCAPO}(f,t) = \sum_{c \in f} \mathrm{PCAPO}(c,t)$$

where:

i. c ∈ f denotes all Separately Certified Components c of Facility f; and

ii. PCAPO(c,t) is the Peak Capacity Adjusted Planned Outage Quantity for Separately Certified Component c in Trading Interval t as calculated in clause 3.21.8A.

3.21.8C. The Peak Capacity Adjusted Planned Outage Quantity for Dispatch Interval DI for Registered Facility f is:

(a) ~~where~~ if no Peak Capacity Credits are assigned to Registered Facility f in Dispatch Interval DI or Registered Facility f is a Non-Scheduled Facility:

$$\mathrm{PCAPO}(f, DI) = 0$$

(b) otherwise:

$$\mathrm{PCAPO}(f, DI) = \sum_{c \in f} \mathrm{PCAPO}(c, DI)$$

where:

i. c ∈ f denotes all Separately Certified Components c of Facility f; and

ii. PCAPO(c,DI) is the Peak Capacity Adjusted Planned Outage Quantity for Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.8.

3.21.9. [Blank]

3.21.10. AEMO must document the processes to be followed in reporting Forced Outages, including the determination of Forced Outage quantities pursuant to clause 4.26.1J, in a WEM Procedure.

Explanatory Note

New clauses 3.21.11 through 3.21.19 calculate CAPO and CAFO for Flexible Capacity, for use in capacity refund calculations. This implements outcome 6 from information paper two.

Remaining Available Capacity relates to whatever Outage Capability is referenced. The key outage capability for FCQ is Flexible Capacity. The relevant MaxCap for a Facility is the Flexible CRC.

PCAPO, PCAFO, FCAPO, and FCAFO are not defined for intermittent components.

3.21.11. The Flexible Capacity Outage Quantity for a Planned Outage or Forced Outage o of a Separately Certified Component c of a Registered Facility that is a Non-Intermittent Generating System or Electric Storage Resource for a Dispatch Interval DI that is included in Planned Outage or Forced Outage o is:

FCQ(c,DI,o)= PrevRAC(c,DI,o) – RAC(c,DI,o)

where:

(a) PrevRAC(c,DI,o) is equal to:

i. MaxCap(c,DI), if Planned Outage or Forced Outage o was the first relevant outage to be submitted; or

ii. otherwise, the applicable Remaining Available Capacity for the relevant outage that was submitted most recently prior to the submission time of Planned Outage or Forced Outage o,

where relevant outage means a Planned Outage or Forced Outage for Flexible Capacity for Separately Certified Component c that includes Dispatch Interval DI;

(b) RAC(c,DI,o) is the applicable Remaining Available Capacity for Planned Outage or Forced Outage o;

(c) MaxCap(c,DI) is, the Flexible Certified Reserve Capacity of that Separately Certified Component; and

(d) the applicable Remaining Available Capacity for a Planned Outage or Forced Outage is the Remaining Available Capacity under the Planned Outage or Forced Outage for Separately Certified Component c in Dispatch Interval DI for the applicable Flexible Capacity Outage Capability, which is:

i. if Separately Certified Component c is a Non-Intermittent Generating System, sent out capacity, net of embedded and Parasitic Loads, available for supply to the relevant Network from the Non-Intermittent Generating System; or

ii. if Separately Certified Component c is an Electric Storage Resource, sent out capacity, net of embedded and Parasitic Loads, available for supply across the Peak Electric Storage Resource Obligation Duration to the relevant Network from the Electric Storage Resource.

Explanatory Note

FCAFO will only be non-zero outside the hot season. This preserves the Flexible Capacity refund pool for periods when Flexible Capacity is most likely to be needed.

3.21.12. The Flexible Capacity Adjusted Forced Outage Quantity for Dispatch Interval DI for Separately Certified Component c of a Registered Facility is:

(a) if Separately Certified Component c is an Intermittent Generating System:

$$\mathrm{FCAFO(c, DI)} = 0$$

(b) otherwise:

$$FCAFO(c, DI) = max\left(0, \sum_{o \in FO} FCQ(c, DI, o) - \max\left(0, MaxCap(c, DI) - DefFRCOQ(c, DI)\right)\right)$$

where:

i. o ∈ FO denotes all Forced Outages o for Separately Certified Component c that include Dispatch Interval DI;

ii. FCQ(c,DI,o) is the Flexible Capacity Outage Quantity for Outage o of Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.11;

iii. MaxCap(c,DI) is the Flexible Certified Reserve Capacity of that Separately Certified Component; and

iv. DefFRCOQ(c,DI) is the Flexible Reserve Capacity Obligation Quantity that would apply to Separately Certified Component c in Dispatch Interval DI if the Separately Certified Component was not subject to an Outage or an approved Commissioning Test Plan.

3.21.13. The Flexible Capacity Adjusted Forced Outage Quantity for Trading Interval t for Separately Certified Component c of a Registered Facility is:

$$\mathrm{FCAFO}(c,t) = \frac{\sum_{DI \in t} \mathrm{FCAFO}(c,DI)}{6}$$

where:

(a) DI ∈ t denotes all Dispatch Intervals DI in Trading Interval t; and

(b) FCAFO(c,DI) is the Flexible Capacity Adjusted Forced Outage Quantity for Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.12.

Explanatory Note

Non-Scheduled Facilities cannot hold Flexible Capacity Credits, so unlike 3.21.7B and 3.21.7C, new clauses 3.21.14 and 3.21.15 do not include Non-Scheduled Facilities.

3.21.14. The Flexible Capacity Adjusted Forced Outage Quantity for Trading Interval t for Registered Facility f is:

(a) if no Flexible Capacity Credits are assigned to Registered Facility f in Trading Interval t:

$$\mathrm{FCAFO}(f,t) = 0$$

(b) otherwise:

$$\mathrm{FCAFO}(f,t) = \sum_{c \in f} \mathrm{FCAFO}(c,t)$$

where:

i. c ∈ f denotes all Separately Certified Components c of Facility f; and

ii. FCAFO(c,t) is the Flexible Capacity Adjusted Forced Outage Quantity for Separately Certified Component c in Trading Interval t as calculated in clause 3.21.13.

3.21.15. The Flexible Capacity Adjusted Forced Outage Quantity for Dispatch Interval DI for Registered Facility f is:

(a) if no Flexible Capacity Credits are assigned to Registered Facility f in Dispatch Interval DI:

$$\mathrm{FCAFO(f, DI)} = 0$$

(b) otherwise:

$$\mathrm{FCAFO(f, DI)} = \sum_{\mathrm{c} \in \mathrm{f}} \mathrm{FCAFO(c, DI)}$$

where:

i. c ∈ f denotes all Separately Certified Components c of Facility f; and

ii. FCAFO(c,DI) is the Flexible Capacity Adjusted Forced Outage Quantity for Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.12.

3.21.16. The Flexible Capacity Adjusted Planned Outage Quantity for Dispatch Interval DI for Separately Certified Component c of a Registered Facility is:

(a) if Separately Certified Component c is an Intermittent Generating System:

$$\mathrm{FCAPO(c, DI)} = 0$$

(b) otherwise:

$$FCAPO(c, DI) = max\left(0, \sum_{o \in \boldsymbol{PO}} FCQ(c, DI, o) - max\left(0, MaxCap(c, DI) - DefFRCOQ(c, DI) - \sum_{o \in \boldsymbol{FO}} FCQ(c, DI, o)\right)\right)$$

where:

i. o ∈ PO denotes all Planned Outages o for Separately Certified Component c that include Dispatch Interval DI;

ii. o ∈ FO denotes all Forced Outages o for Separately Certified Component c that include Dispatch Interval DI;

iii. FCQ(c,DI,o) is the Flexible Capacity Outage Quantity for Outage o of Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.11;

iv. MaxCap(c,DI) is is the Flexible Certified Reserve Capacity of that Separately Certified Component; and

v. DefFRCOQ(c,DI) is the Flexible Reserve Capacity Obligation Quantity that would apply to Separately Certified Component c in Dispatch Interval DI if the Separately Certified Component was not subject to an Outage or an approved Commissioning Test Plan.

3.21.17. The Flexible Capacity Adjusted Planned Outage Quantity for Trading Interval t for Separately Certified Component c of a Registered Facility is:

$$\mathrm{FCAPO(c,t)} = \frac{\sum_{\mathrm{DI} \in \mathrm{t}} \mathrm{FCAPO(c,DI)}}{6}$$

where:

(a) DI ∈ t denotes all Dispatch Intervals DI in Trading Interval t; and

(b) FCAPO(c,DI) is the Flexible Capacity Adjusted Planned Outage Quantity for Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.16.

3.21.18. The Flexible Capacity Adjusted Planned Outage Quantity for Trading Interval t for Registered Facility f is:

(a) if no Flexible Capacity Credits are assigned to Registered Facility f in Trading Interval t or Registered Facility f is a Non-Scheduled Facility:

$$\mathrm{FCAPO(f,t)} = 0$$

(b) otherwise:

$$\mathrm{FCAPO(f,t)} = \sum_{\mathrm{c} \in \mathrm{f}} \mathrm{FCAPO(c,t)}$$

where:

i. c ∈ f denotes all Separately Certified Components c of Facility f; and

ii. FCAPO(c,t) is the Flexible Capacity Adjusted Planned Outage Quantity for Separately Certified Component c in Trading Interval t as calculated in clause 3.21.17.

3.21.19. The Flexible Capacity Adjusted Planned Outage Quantity for Dispatch Interval DI for Registered Facility f is:

(a) if no Flexible Capacity Credits are assigned to Registered Facility f in Dispatch Interval DI or Registered Facility f is a Non-Scheduled Facility:

$$\mathrm{FCAPO(f,DI)} = 0$$

(b) otherwise:

$$\mathrm{FCAPO(f,DI)} = \sum_{\mathrm{c} \in \mathrm{f}} \mathrm{FCAPO(c,DI)}$$

where:

i. c ∈ f denotes all Separately Certified Components c of Facility f; and

ii. FCAPO(c,DI) is the Flexible Capacity Adjusted Planned Outage Quantity for Separately Certified Component c in Dispatch Interval DI as calculated in clause 3.21.16.

…

3.22.3. AEMO must prepare and publish on the WEM Website the Peak Refund Exempt Planned Outage Count and Flexible Refund Exempt Planned Outage Count for each

Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility for each of the 1000 Trading Days up to and including the most recent Trading Day which AEMO has settled under Chapter 9.

…

4 Reserve Capacity Rules

The Reserve Capacity Cycle

4.1. The Reserve Capacity Cycle

4.1.1. This section 4.1 sets out the timetable by which the key events described in this Chapter in respect of each Reserve Capacity Cycle must occur. The events described below comprise a single Reserve Capacity Cycle, except where otherwise indicated. The Reserve Capacity Cycle will be repeated for each Capacity Year.

4.1.1A. Section 4.28C takes precedence over this section 4.1 and events described in section 4.28C are not required to comply with the timetable in this section 4.1 except where specified in section 4.28C.

4.1.1B. The description of an event in this section 4.1 is for the purpose of identifying where it fits into the Reserve Capacity Cycle, and does not affect the interpretation of the relevant provisions of this Chapter 4.

4.1.1C. AEMO may modify or extend a date or time set under this section 4.1 and section 4.4B. If AEMO extends a date or time under this clause 4.1.1C, then it must publish notice of the modified or extended date or time on the WEM Website and the modified or extended date or time takes effect for the purposes of these WEM Rules.

4.1.2. [Blank]

Explanatory Note

Clause 4.1.3(c) is amended to clarify that these are calendar days rather than Trading Days.

4.1.3. Each Reserve Capacity Cycle:

(a) occurs over four successive calendar years (Year 1 to Year 4);

(b) is identified by reference to the calendar year in which Year 1 of the Reserve Capacity Cycle falls; and

(c) relates to the Reserve Capacity required for the period between the start of the ~~first~~ Trading Interval starting at 08:00 AM on 1 October of Year 3 and the end of the ~~last~~ Trading Interval ending at 08:00 AM on 1 October of Year 4 of the Reserve Capacity Cycle.

4.1.4. In respect of each Reserve Capacity Cycle, AEMO must advertise a Request for Expressions of Interest in accordance with clause 4.2.4 by 5:00 PM on or before 15 January of Year 1 of the Reserve Capacity Cycle.

4.1.5. AEMO must allow potential Reserve Capacity providers to respond to the Request for Expressions of Interest in accordance with section 4.2 until 5:00 PM on the first Business Day falling on or following 1 March of Year 1 of a Reserve Capacity Cycle.

4.1.6. AEMO must publish a summary of the responses to its Request for Expressions of Interest in accordance with clause 4.2.7 by 5:00 PM on the first Business Day falling on or following 1 April of Year 1 of a Reserve Capacity Cycle.

4.1.7. AEMO must accept lodgement of applications for certification of Reserve Capacity for a Reserve Capacity Cycle in accordance with clause 4.9.1 from 9:00 AM on the first Business Day falling on or following 14 April of Year 1 of a Reserve Capacity Cycle.

4.1.8. AEMO must publish a Statement of Opportunities Report produced in accordance with the Long Term PASA process described in clause 4.5.11 by 5:00 PM on the first Business Day falling on or following 17 June of Year 1 of a Reserve Capacity Cycle.

Explanatory Note

The new RLM uses input data that participants may find useful in preparing their applications for Certified Reserve Capacity. AEMO will be required to publish that data alongside the ESOO.

4.1.9. ~~[Blank]~~AEMO must publish input data to be used in the Relevant Level Method in accordance with clause B.9.1 of Appendix 9 by 5:00 PM on the first Business Day falling on or following 17 June of Year 1 of a Reserve Capacity Cycle.

4.1.10. AEMO must publish on the WEM Website the Reserve Capacity Information Pack in accordance with clause 4.7.2 by 5:00 PM on the first Business Day falling on or following 17 June of Year 1 of a Reserve Capacity Cycle.

4.1.11. AEMO must cease to accept lodgement of applications for certification of Reserve Capacity for a Reserve Capacity Cycle in accordance with clause 4.9.1 from 5:00 PM on the last Business Day falling on or before 24 June of Year 1 of a Reserve Capacity Cycle.

4.1.12. AEMO must notify each applicant for certification of Reserve Capacity, including applicants for Early Certified Reserve Capacity under clause 4.28C.7, of the Certified Reserve Capacity to be assigned by 5:00 PM on the last Business Day on or before 12 August of Year 1 of a Reserve Capacity Cycle.

Explanatory Note

DSM Reserve Capacity Security is renamed to DSP Reserve Capacity Security, as it is only used for DSPs.

4.1.13. Each Market Participant must provide to AEMO any Reserve Capacity Security required in accordance with clause 4.13.1 and any ~~DSM~~DSP Reserve Capacity Security required in accordance with clause 4.13A.1 not later than 5:00 PM on the

last Business Day falling on or before 25 August of Year 1 of a Reserve Capacity Cycle.

4.1.14. Each Market Participant holding Certified Reserve Capacity for a Reserve Capacity Cycle must provide to AEMO notification in accordance with clause 4.14.1 as to how its Certified Reserve Capacity will be dealt with not later than 5:00 PM on the last Business Day falling on or before 25 August of Year 1 of a Reserve Capacity Cycle.

4.1.15. By 5:00 PM on the first Business Day following the notification deadline specified in clause 4.1.14, AEMO must confirm to each Market Participant in accordance with clause 4.14.9 the quantity ~~amount~~ of Certified Reserve Capacity that can be traded bilaterally from its Facilities.

4.1.15A. AEMO must publish the Certified Reserve Capacity for each Facility in accordance with clause 4.9.9A by 5:00 PM on the first Business Day following the confirmation deadline specified in clause 4.1.15.

4.1.16. ~~[Blank]~~AEMO must publish the output of the Relevant Level Method in accordance with clause B.9.2 of Appendix 9 by 5:00 PM on the third Business Day following the deadline specified in clause 4.1.15A.

4.1.16A. By 5:00 PM on the last Business Day falling on or before 30 September of Year 1 of a Reserve Capacity Cycle, AEMO must:

(a) assign Capacity Credits in accordance with clause 4.20.5A(a);

(b) determine in accordance with clause 4.20.5A(aA) whether the Peak Reserve Capacity Requirement has been met or exceeded with the Capacity Credits assigned for Year 3 of the Reserve Capacity Cycle:

i. to Facilities to which section 4.13 applies, for which no Reserve Capacity Security was required to be provided under section 4.13; or

ii. to Demand Side Programmes determined by AEMO to be in Commercial Operation;

(b) determine in accordance with clause 4.20.5A(aB) whether the Flexible Reserve Capacity Requirement has been met or exceeded with the Flexible Capacity Credits assigned for Year 3 of the Reserve Capacity Cycle:

i. to Facilities to which section 4.13 applies, for which no Reserve Capacity Security was required to be provided under section 4.13; or

ii. to Demand Side Programmes determined by AEMO to be in Commercial Operation;

(c) notify each Market Participant of the Network Access Quantity determined for each of its Facilities in accordance with clause 4.15.11; and

(d) publish the information required to be published under clause 4.15.16.

4.1.17. [Blank]

4.1.18. [Blank]

4.1.18A. AEMO must publish the summary of information described in clause 4.20.5AA by the date and time specified in clause 4.1.16A.

4.1.19. The Economic Regulation Authority must commence a review of the Benchmark Reserve Capacity Prices as required by clause 4.16.3 with the objective of completing the review, including consideration of public submissions in relation to that review, so as to allow a reasonable time for the Economic Regulation Authority to determine any proposed change in value and for that value to be implemented prior to the date and time specified in clause 4.1.4 that relates to the following Reserve Capacity Cycle.

4.1.20. [Blank]

4.1.21. A Market Participant may apply to AEMO:

(a) under clause 4.13.2A for a recalculation of the amount of Reserve Capacity Security required to be held by AEMO for a Facility in accordance with clause 4.13.2(b); or

(b) under clause 4.13A.8 for a recalculation of the amount of ~~DSM~~DSP Reserve Capacity Security required to be held by AEMO for a Demand Side Programme in accordance with clauses 4.13A.1 or 4.13A.4, as applicable,

after 5:00 PM on the last Business Day falling on or before 1 October of Year 1 of a Reserve Capacity Cycle.

4.1.21A. By 5:00 PM on the last Business Day falling on or before 30 October of Year 1 of a Reserve Capacity Cycle, each relevant Market Participant must notify AEMO of the number of Capacity Credits that are to be associated with each component of their Facility for the Capacity Year in accordance with clause 4.20.16.

4.1.21B. If required under clause 4.20.8, AEMO must issue a Notice of Intention to Cancel Capacity Credits by 5:00 PM on the last Business Day falling on or before 15 August of Year 3 of a Reserve Capacity Cycle, where the notice relates to the Capacity Year that commences on 1 October of Year 3 of that Reserve Capacity Cycle.

4.1.22. Within five Business Days after the notification deadline specified in clause 4.1.21A, AEMO must:

(a) set the number of Capacity Credits to be associated with each component of a Facility in accordance with clause 4.20.17; and

(b) publish the information in clause 4.1.22(a) on the WEM Website.

4.1.23. Each Market Participant must provide to AEMO the information described in clause 4.28.8 by 5:00 PM on the last Business Day falling on or before 20 August of Year 3 of a Reserve Capacity Cycle.

4.1.23A. For each Hot Season, AEMO must determine and publish the Peak IRCR Intervals in accordance with clause 4.28.5B ~~12 Peak SWIS Trading Intervals~~ within five Business Days after the Interval Meter Deadline for the Trading Week containing the last Trading Day of the last Trading Month in the relevant Hot Season. For the avoidance of doubt, AEMO must not revise the Peak IRCR Intervals ~~12 Peak SWIS Trading Intervals~~ after their publication.

4.1.23AA. For each Capacity Year, AEMO must determine and publish the Flexible IRCR Intervals in accordance with clause 4.28.5C within five Business Days after the Interval Meter Deadline for the Trading Week containing the last Trading Day of the Capacity Year. For the avoidance of doubt, AEMO must not revise the Flexible IRCR 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 Trading Week containing the last Trading Day of the relevant Trading Month. For the avoidance of doubt, AEMO must not revise the 4 Peak SWIS Trading Intervals after their publication.

Explanatory Note

The 3 High-Ramp Trading Days are used to calculate Flexible IRCR.

4.1.23BA. For each Trading Month, AEMO must determine and publish the 3 High-Ramp Trading Days within five Business Days after the Interval Meter Deadline for the Trading Week containing the last Trading Day of the relevant Trading Month. For the avoidance of doubt, AEMO must not revise the 3 High-Ramp Trading Days after their publication.

Explanatory Note

IRCR is now to be calculated daily.

4.1.23C. ~~For each Trading Month,~~ AEMO must determine and provide to each Market Participant that Market Participant's Indicative Peak Individual Reserve Capacity Requirement for each Trading Day 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~~ Week containing that Trading Day.

4.1.23D. AEMO must determine and provide to each Market Participant that Market Participant's Indicative Flexible Individual Reserve Capacity Requirement for each Trading Day in accordance with clause 4.28.6A by 5:00 PM on the Business Day that is 10 Business Days prior to the start of the Trading Week containing that Trading Day.

4.1.24. ~~For each Trading Month,~~ AEMO must determine and provide to each Market Participant that Market Participant's Peak Individual Reserve Capacity Requirement for each Trading Day in accordance with clause 4.28.7 by 5:00 PM on the Settlement

Statement Date for the Trading Week containing ~~the first~~ that Trading Day ~~in the relevant Trading Month~~.

4.1.25. ~~[Blank]~~ AEMO must determine and provide to each Market Participant that Market Participant's Flexible Individual Reserve Capacity Requirement for each Trading Day in accordance with clause 4.28.7A by 5:00 PM on the Settlement Statement Date for the Trading Week containing that Trading Day.

Explanatory Note

4.1.26 is amended to remove obsolete references to historical Reserve Capacity Cycles.

4.1.26. Reserve Capacity Obligations apply:

~~(a) [Blank]~~

~~(b) [Blank]~~

~~(c) [Blank]~~

~~(d) for the 2018 Reserve Capacity Cycle:~~

~~i. where AEMO has determined in accordance with clause 4.20.5A(aA) that the Reserve Capacity Requirement has been met or exceeded with the Capacity Credits assigned for Year 3 of the Reserve Capacity Cycle for which no Reserve Capacity Security was required to be provided under section 4.13, from the Trading Day commencing on 1 October of Year 3 of the Reserve Capacity Cycle; and~~

~~ii. where AEMO has determined in accordance with clause 4.20.5A(aA) that the Reserve Capacity Requirement has not been met with the Capacity Credits assigned for Year 3 of the Reserve Capacity Cycle for which no Reserve Capacity Security was required to be provided under section 4.13:~~

~~1. from the Trading Day commencing on 1 October of Year 3 of the Reserve Capacity Cycle, for Facilities that were commissioned as at 17 September 2018 or for Facilities which have provided Capacity Credits in one or both of the two previous Reserve Capacity Cycles;~~

~~2. from the Trading Day commencing on 1 June of Year 3 of the Reserve Capacity Cycle, for Facilities commissioned between 17 September 2018 and 1 June of Year 3 of the Reserve Capacity Cycle;~~

~~2A. from the Trading Day commencing on the scheduled date of commissioning, as specified in accordance with clause 4.10.1(c)(iii)(7), or as revised in accordance with clause 4.27.11A, for Facilities commissioned between 1 June of Year 3 of the Reserve Capacity Cycle and 1 October of Year 3 of the Reserve Capacity Cycle; or~~

3. from the Trading Day commencing on 1 October of Year 3 of the Reserve Capacity Cycle, for new Energy Producing Systems undertaking Commissioning Tests after 1 October of Year 3 of the Reserve Capacity Cycle; and

(e) from the 2019 Reserve Capacity Cycle:

(a)i. from the Trading Day commencing 1 October of Year 3 of the Reserve Capacity Cycle, where AEMO has determined in accordance with clause 4.20.5A(aA) that the Peak Reserve Capacity Requirement has been met or exceeded with the Capacity Credits assigned for Year 3 of the Reserve Capacity Cycle:

i1. to Facilities to which section 4.13 applies, for which no Reserve Capacity Security was required to be provided under section 4.13; or

ii2. to Demand Side Programmes determined by AEMO to be in Commercial Operation, and

(b)ii. where if AEMO has determined in accordance with clause 4.20.5A(aA) that the Peak Reserve Capacity Requirement has not been met with the Capacity Credits assigned for Year 3 of the Reserve Capacity Cycle:

i1. to Facilities to which section 4.13 applies, for which no Reserve Capacity Security was required to be provided under section 4.13; or

ii2. to Demand Side Programmes determined by AEMO to be in Commercial Operation,

from the Trading Day commencing:

iii3. on 1 October of Year 3 of the Reserve Capacity Cycle, for Facilities that were commissioned as at 16 September 2019 or for Facilities which have provided Capacity Credits in one or both of the two previous Reserve Capacity Cycles;

iv4. on 1 June of Year 3 of the Reserve Capacity Cycle, for Facilities commissioned between 16 September 2019 and 1 June of Year 3 of the Reserve Capacity Cycle;

v5. on the scheduled date of commissioning, as specified in accordance with clause 4.10.1(c)(iii)(7), or as revised in accordance with clause 4.27.11A, for Facilities commissioned between 1 June of Year 3 of the Reserve Capacity Cycle and 1 October of Year 3 of the Reserve Capacity Cycle; or

vi6. on 1 October of Year 3 of the Reserve Capacity Cycle, for new Energy Producing Systems undertaking Commissioning Tests after 1 October of Year 3 of the Reserve Capacity Cycle.

4.1.27. [Blank]

4.1.28. [Blank]

4.1.29. The Reserve Capacity Price and each ~~Facility~~ Component Monthly Reserve Capacity Price for a Reserve Capacity Cycle apply from the start of the Trading Day commencing on 1 October of Year 3 of the Reserve Capacity Cycle to the end of the Trading Day ending on 1 October of Year 4 of the Reserve Capacity Cycle.

4.1.30. The Reserve Capacity Obligations for a Facility arising through holding Capacity Credits for a Reserve Capacity Cycle cease to apply from:

(a) subject to clause 4.1.30(b), the completion of the Trading Day ending on 1 October of Year 4 of the Reserve Capacity Cycle; and

(b) the completion of the Trading Day ending on the scheduled date of decommissioning, as specified in accordance with clause 4.10.1(d), for Facilities decommissioned between 1 August of Year 4 of the Reserve Capacity Cycle and 1 October of Year 4 of the Reserve Capacity Cycle.

4.1A. Initial Network Access Quantities for the 2022 Reserve Capacity Cycle and Capacity Credit Uplift

4.1A.1. For the 2022 Reserve Capacity Cycle, AEMO must determine an Initial Network Access Quantity in accordance with clause 4.1A.2 for each Facility, other than a GIA Facility, that:

(a) was assigned Peak Capacity Credits for the 2021 Reserve Capacity Cycle; and

(b) has been assigned Peak Certified Reserve Capacity for the 2022 Reserve Capacity Cycle that is intended to be traded bilaterally under clause 4.14.1(c).

4.1A.2. The Initial Network Access Quantity to be determined by AEMO under clause 4.1A.1 for a Facility is a quantity, in MW, equal to:

(a) ~~where~~ if the Facility, or a component of the Facility, has been assigned Peak Certified Reserve Capacity using the Relevant Level Method ~~methodology described in clause 4.11.2(b)~~, the Peak Certified Reserve Capacity assigned to the Facility for the 2022 Reserve Capacity Cycle that is intended to be traded bilaterally in accordance with 4.14.1(c); and

(b) for each other Facility, the lesser of:

i. the Peak Capacity Credits assigned to the Facility for the 2021 Reserve Capacity Cycle; and

ii. the Peak Certified Reserve Capacity assigned to the Facility for the 2022 Reserve Capacity Cycle that is intended to be traded bilaterally in accordance with 4.14.1(c).

4.1A.3. Each Initial Network Access Quantity is to be expressed to a precision of 0.001 MW.

4.1A.4. Subject to clause 4.1A.6, for the 2022 Reserve Capacity Cycle, ~~where~~ if a Facility, other than a GIA Facility, is assigned a Network Access Quantity in accordance with

section 4.15 that is less than the Initial Network Access Quantity determined by AEMO under clause 4.1A.1, AEMO must record the difference as the CC Uplift Quantity for the Facility ("**CC Uplift Quantity**").

4.1A.5. ~~Where~~ If, in respect of a Reserve Capacity Cycle:

(a) a CC Uplift Quantity has been determined for a Facility; and

(b) the sum of the Network Access Quantity determined for the Facility in accordance with section 4.15 and the CC Uplift Quantity determined for the Facility exceeds the Peak Certified Reserve Capacity for the Facility for the Reserve Capacity Cycle,

~~then~~ AEMO must reduce the CC Uplift Quantity so that the Network Access Quantity and the revised CC Uplift Quantity equals the Peak Certified Reserve Capacity for the Facility for the Reserve Capacity Cycle.

4.1A.6. At any time the maximum amount of CC Uplift Quantity is to be the sum recorded by AEMO under clause 4.1A.4, as may be reduced by AEMO under clause 4.1A.5. To avoid doubt, a CC Uplift Quantity, as may be reduced under clause 4.1A.5, may not be increased in any subsequent Reserve Capacity Cycle.

4.1A.7. Any CC Uplift Quantity is deemed to be a Peak Capacity Credit in the same quantities and subject to the same obligations including testing requirements, refunds, payment arrangements and all other provisions applicable to Peak Capacity Credits (including the determination of the Peak Reserve Capacity Price) under these WEM Rules save that for the purposes of determining whether the Peak Reserve Capacity Requirement has been met or exceeded in accordance with clause 4.20.5A(aA), AEMO must disregard any CC Uplift Quantity.

4.1A.8. AEMO must publish the CC Uplift Quantity for each applicable Facility.

The Reserve Capacity Expression of Interest

4.2. The Reserve Capacity Expression of Interest Process

Explanatory Note

Participants are no longer required to submit Expressions of Interest to be eligible for submitting applications for Certified Reserve Capacity. This implements review outcome 10 from information paper two.

References to Demand Side Management are replaced with references to Demand Side Programmes.

4.2.1. The purpose of the Reserve Capacity Expression of Interest is for a person to notify AEMO of the amount of new Energy Producing System and Demand Side Programme ~~Management~~ capacity they intend to make available as ~~Reserve~~Peak Capacity and Flexible Capacity in the Capacity Year to which the Expression of Interest relates. ~~To avoid doubt, a Market Participant or other person, as applicable,~~

~~must submit an Expression of Interest as a condition of being eligible to seek certification of Reserve Capacity under section 4.8 for any new capacity, which includes an upgrade of a Facility, in the Reserve Capacity Cycle to which the Expression of Interest relates.~~

4.2.2. AEMO must prepare a Request for Expressions of Interest which includes the information described in clause 4.3.1.

4.2.3. The Request for Expression of Interest is to be made available:

(a) on the WEM Website; and

(b) to any person on application to AEMO.

4.2.4. By the date and time specified in clause 4.1.4, AEMO must have advertised the Request for Expression of Interest, including how to obtain the Request for Expression of Interest:

(a) on the WEM Website; and

(b) in local and national media which, in the opinion of AEMO, is likely to be seen by potential suppliers of Reserve Capacity.

4.2.5. At its discretion, AEMO may continue to advertise and promote the Request for Expression of Interest until the deadline for submissions of Expression of Interest specified in clause 4.2.6.

4.2.6. Expressions of Interest must be provided to AEMO by the time and date specified in clause 4.1.5 and must contain the information described in clause 4.4.1.

4.2.7. By the date and time specified in clause 4.1.6, AEMO must publish the following information:

(a) the total number of Expressions of Interest received;

(aA) the number of Expressions of Interest received, excluding Expressions of Interest for EOI Facility Variants that have not been nominated under clause 4.4.2;

(b) based on the Expressions of Interest referred to in clause 4.2.7(aA), the additional Reserve Capacity potentially available, categorised as Peak Capacity and Flexible Capacity from:

i. capacity associated with Facilities that are committed; and

ii. capacity associated with Facilities that are not yet committed, where this capacity is to be further categorised between new Facilities for which:

1. an offer by the relevant Network Operator to enter into an Arrangement for Access ("**Access Proposal**") has been made and all necessary Environmental Approvals granted;

2. applications for both Access Proposals and Environmental Approvals have been made and one or both are being processed;

3. no Access Proposal has been applied for or some or all Environmental Approvals have not been applied for;

(c) based on the Expressions of Interest, the additional ~~Reserve~~Peak Capacity and Flexible Capacity potentially available by:

i. Facility Technology Types, including:

1. Intermittent Generating Systems;

2. Non-Intermittent Generating Systems; and

3. Electric Storage Resources;

ii. Demand Side Programmes; and

iii Small Aggregation.

(cA) if the Facility is an Energy Producing System, the additional ~~Reserve~~Peak Capacity and Flexible Capacity potentially available from each technology;

(cB) whether more than one technology is proposed for the Facility or location;

(d) based on the Expressions of Interest, the additional ~~Reserve~~Peak Capacity and Flexible Capacity potentially available categorised based on fuel type and back-up fuel options;

(e) AEMO's estimate of the existing capacity eligible to be assigned Certified Reserve Capacity in the SWIS; and

(f) the preliminary Reserve Capacity Requirements for the Reserve Capacity Cycle to which the Expression of Interest relates that was included in the Request for Expression of Interest.

4.3. Information to be Included in a Request for Expression of Interest

4.3.1. A Request for Expression of Interest for a Reserve Capacity Cycle must include the following information:

(a) a request for a response by interested parties not later than the relevant time specified in clause 4.1.5;

(b) the preliminary Reserve Capacity Requirements for the Reserve Capacity Cycle determined in accordance with section 4.6;

(c) for each of the three previous Reserve Capacity Cycles (if applicable):

i. the Reserve Capacity Requirements determined in accordance with clause 4.6.1 and clause 4.6.1A;

ii. the Availability Curve referred to in clause 4.5.10(e) applicable to that Reserve Capacity Cycle;

iii. [Blank]

iv. the number of Peak Capacity Credits and Flexible Capacity Credits acquired by AEMO;

v. the Benchmark Reserve Capacity Prices;

vi. the Reserve Capacity Prices;

vii. each ~~Facility~~ Component Monthly Reserve Capacity Price that applied to a Separately Certified Component ~~Facility~~; and

viii. the aggregate quantity of MW of Peak Capacity Credits and Flexible Capacity Credits assigned to Facilities at each of the prices referred to in clauses 4.3.1(e)(vi) and 4.3.1(e)(vii);

(d) the number of Peak Capacity Credits and Flexible Capacity Credits which AEMO expects to be traded bilaterally in accordance with clause 4.14.1(a) and clause 4.14.1(c);

(e) the amount of Peak Capacity and Flexible Capacity~~capacity~~ expected to be required from new Facilities, where ~~this~~these figures are~~is~~ based on the difference between the values as determined in accordance with clause 4.6.3 and the latest information available to AEMO as to the aggregate available Peak Capacity and Flexible Capacity~~capacity~~ for the SWIS during the period to which the Reserve Capacity Requirements relate~~s~~;

(f) the Benchmark Reserve Capacity Prices applicable to the relevant Reserve Capacity Cycle;

(g) a brief summary of the eligibility requirements for Reserve Capacity to be certified under section 4.11;

(h) information on how to obtain an electronic version of the WEM Rules;

(i) the following information on timetables and processing times for the Reserve Capacity Cycle:

i. the date and time from which the lodgement of applications for certification of Reserve Capacity will be allowed;

ii. the date and time by which applications for certification of Reserve Capacity must be lodged;

iii. the date and time that applicants for Certified Reserve Capacity will be notified of the Certified Reserve Capacity assigned;

iv. the date and time by which a Market Participant which holds Certified Reserve Capacity must notify AEMO in accordance with clause 4.14.1 as to how its Reserve Capacity will be dealt with; and

v. the date and time by which AEMO will publish the Preliminary RCM Constraint Equations;

(j) the information required to be included in an Expression of Interest and the format in which that information is to be presented;

(k) the closing date and time for submission of Expressions of Interest;

(l) who to contact with questions and responses to the Expression of Interest, including that person's contact details; and

(m) the information specified in clause 4.4A.2 in respect of any Facility where the expected closure date of the Facility has not yet occurred.

4.4. Information to be Included in an Expression of Interest

4.4.1. An Expression of Interest for a Reserve Capacity Cycle must include the following information:

(a) the identity of the person proposing to provide Reserve Capacity and contact details;

(b) for each Facility covered by the Expression of Interest, its name and location and whether it contains:

i. an Intermittent Generating System;

ii. a Non-Intermittent Generating System;

iii. an Electric Storage Resource;

iv. a Demand Side Programme; and

v. a Small Aggregation;

(bA) if the Facility contains an Energy Producing System:

i. the expected nameplate capacity for each technology; and

ii. the maximum ~~Reserve~~Peak Capacity and Flexible Capacity anticipated to be available from each technology;

(bB) whether more than one technology is proposed for the Facility or location;

(bC) whether the Expression of Interest is for an EOI Facility Variant and, if so, whether the Expression of Interest is nominated under clause 4.4.2;

(c) the maximum ~~Reserve~~Peak Capacity and Flexible Capacity anticipated to be available from each Facility;

(d) for each Facility:

i. the expected earliest date that the Facility will be able to be fully operational;

ii. the status of any applications for Access Proposals in respect of that Facility;

iii. the status of any applications for Environmental Approvals required in respect of that Facility;

iv. details of the type and quantity of fuel expected to be available to that Facility;

v. the hours during a typical week when the Facility will not be available to be dispatched due to staffing restrictions or other factors;

vi. whether the Facility is expected to be nominated to be classified as a Network Augmentation Funding Facility;

vii. whether the Facility has entered into or is expected to enter into an NCESS Contract;

viii. if an application under clause 4.4.1(d)(ii) has been submitted, the application reference number provided by the Network Operator; and

ix. if an application under clause 4.4.1(d)(ii) has been submitted, the date the application was submitted to the Network Operator; and

(e) any other information specified by AEMO in the Request for Expression of Interest under clause 4.3.1(j).

4.4.2. A person who submits two or more Expressions of Interest for EOI Facility Variants must nominate one Expression of Interest to be used by AEMO for the purposes of clauses 4.2.7(b) and 4.4B.4.

4.4.3. If:

(a) a person submits two or more Expressions of Interest and does not specify that any of the Expressions of Interest is for an EOI Facility Variant under clause 4.4.1(bC); and

(b) AEMO reasonably considers that two or more of the Expressions of Interest are for EOI Facility Variants,

AEMO may (after using reasonable endeavours to consult with the person) select one Expression of Interest to use for the purposes of clauses 4.2.7(b) and 4.4B.4. The Expression of Interest selected by AEMO is deemed to be the Expression of Interest nominated by the person under clause 4.4.2.

4.4A. Notification of Facility Ceasing Operation

4.4A.1. ~~Where~~ If a Facility, other than ~~that is not~~ a Demand Side Programme with less than 10 MW of Capacity Credits ~~assigned to the Demand Side Programme at the time the notice is given or required to be given under this clause 4.4A.1~~ or a Non-Scheduled Facility, is to cease operation permanently, the Market Participant to whom that Facility is registered must:

(a) notify AEMO of the expected closure date of the Facility in accordance with this section 4.4A; and

(b) subject to clause 4.4A.5, specify an expected closure date of not less than three years from the date the notice is given to AEMO.

4.4A.2. AEMO must within five Business Days after receiving a notice under clause 4.4A.1, publish the following information on the WEM Website:

(a) the name of the Market Participant that provided the notice;

(b) the name of the Facility specified in the notice;

(bA) the Transmission Node Identifier for the Facility;

(bB) the geographical location for the Facility;

(c) the Peak Capacity Credits and Flexible Capacity Credits, in MW, assigned to the Facility at the time of the notice and for any subsequent Reserve Capacity Cycle;

(d) the Standing Data nameplate capacity of the Facility, expressed in MW; and

(e) the expected closure date of the Facility; and

(f) the Network Access Quantity assigned to the Facility at the time of the notice and for any subsequent Reserve Capacity Cycle.

4.4A.3. A Market Participant must, as soon as practicable, notify AEMO of any changes to the expected closure date of a Facility by amending the notice given under clause 4.4A.1.

4.4A.4. AEMO must within five Business Days after receiving notification under clause 4.4A.3, publish the revised expected closure date of the Facility on the WEM Website.

4.4A.5. A notice under clause 4.4A.1, as may be amended in accordance with clause 4.4A.3, may specify an expected closure date of less than three years ~~where~~ if:

(a) the Market Participant becomes insolvent within the meaning of clause 9.19.2;

(b) the Facility specified in the notice has suffered an unexpected catastrophic event; or

(c) the Market Participant forms the view, in good faith, that the Facility specified in the notice is now no longer commercially viable due to reasons beyond its control that were not reasonably foreseeable,

and as a result the Facility is to cease operation permanently.

4.4A.6. A Market Participant may, by notice in writing to AEMO, withdraw a notice given under clause 4.4A.1 if the withdrawal is made in good faith.

4.4A.7. AEMO must within five Business Days after receiving a notice under clause 4.4A.6, publish notification of the withdrawal of a notice under clause 4.4A.1 on the WEM Website.

4.4B. RCM Limit Advice and RCM Constraint Equations

4.4B.1. Each Network Operator must provide RCM Limit Advice to AEMO in respect to its Network in accordance with this section 4.4B and section 2.27A.

4.4B.2. By 5:00 PM on the last Business Day falling on or before 8 March in Year 1 of a Reserve Capacity Cycle, AEMO must provide each Network Operator, in respect of its Network for the Reserve Capacity Cycle:

(a) details of each Facility specified in an Expression of Interest submitted under clause 4.2.6 for the Reserve Capacity Cycle, including the information in clause 4.4.1;

(b) details of each Facility for which AEMO has received a notice under clause 4.4A.1 where the intention is for the Facility to cease operation permanently by 1 October of Year 3 of the Reserve Capacity Cycle;

(c) details of each Facility for which AEMO has received an Early Certified Reserve Capacity application and whether the Facility has nominated to be classified as a Network Augmentation Funding Facility; and

(d) details of any NCESS Contracts procured by AEMO which are expected to be in service by 1 October of Year 3 of the Reserve Capacity Cycle, and is expected to impact information provided by a Network Operator under clause 4.4B.5.

4.4B.3. By 5:00 PM on the last Business Day falling on or before 15 April in Year 1 of a Reserve Capacity Cycle, each Network Operator must, in respect of its Network, reasonably estimate the configuration at peak demand, and associated Thermal Network Limits of its Network:

(a) by:

i. assuming an ambient temperature of 41 degrees Celsius;

ii. taking into account:

1. all new Network augmentations that will be in-service, including separate Thermal Network Limits for Facilities nominated to be classified as Network Augmentation Funding Facilities;

2. all transmission Network assets scheduled to be retired; and

3. all NCESS Contracts expected to be in-service,

as at 1 October of Year 3 of the Reserve Capacity Cycle;

iii. including the connection of new Facilities notified by AEMO under clauses 4.4B.2(a) and 4.4B.2(c); and

iv. including the impact of any Facilities notified by AEMO under clause 4.4B.2(b); and

(b) in accordance with the WEM Procedure referred to in clause 2.27A.11(b)(i).

Explanatory Note

Clause 4.4B.4 is amended and new clause 4.4B.4A inserted to allow AEMO to limit the formulation of Preliminary RCM Constraint Equations to only one EOI Facility Variant.

4.4B.4. Subject to clause 4.4B.4A, AEMO must formulate Preliminary RCM Constraint Equations and RCM Constraint Equations in accordance with this section 4.4B. In formulating Preliminary RCM Constraint Equations and RCM Constraint Equations, AEMO must:

(a) use RCM Limit Advice and Limit Advice available in relation to Non-Thermal Network Limits to develop Preliminary RCM Constraint Equations and RCM Constraint Equations; and

(b) ~~where~~ if a Network Operator has not been able to provide Non-Thermal Network Limits for Facilities that are not yet in-service or Facilities subject to an NCESS Contract in accordance with clause 2.27A.6 at the time specified in clause 4.4B.5, use Non-Thermal Network Limits which, in its reasonable opinion, most closely represent the expected Non-Thermal Network Limit for the Facility.

4.4B.4A. AEMO is not required to formulate Preliminary RCM Constraint Equations for a Facility that is an EOI Facility Variant unless the Expression of Interest is:

(a) nominated under clause 4.4.2; or

(b) deemed to be nominated in accordance with clause 4.4.3.

4.4B.5. By 5:00 PM on the last Business Day falling on or before 15 April in Year 1 of a Reserve Capacity Cycle, each Network Operator must provide the following information in respect of its Network to AEMO:

(a) the estimated proportion of the peak demand of its Network as at 1 October of Year 3 of the Reserve Capacity Cycle determined under clause 4.4B.3 at each Electrical Location on its Network;

(b) its estimate of the Thermal Network Limits of its Network taking into account all new Network augmentations that will be in-service by the relevant Capacity Year specified in applications for Early Certified Reserve Capacity under section 4.28C, including separate Thermal Network Limits for Facilities nominated to be classified as Network Augmentation Funding Facilities;

(c) the Electrical Location and identity of any new load, or increase of an existing load, equal to or greater than 10 MW that the relevant Network Operator expects to be connected to its Network and in-service by 1 October of Year 3 of the Reserve Capacity Cycle;

(d) in the form of RCM Limit Advice, its estimate of the configuration and associated Thermal Network Limits of its Network as at 1 October of Year 3 of the current Reserve Capacity Cycle determined under clause 4.4B.3; and

(e) an explanation for any changes to the RCM Limit Advice provided to AEMO for the Reserve Capacity Cycle from the RCM Limit Advice provided to AEMO for a previous Reserve Capacity Cycle.

4.4B.6. By 5:00 PM on the last Business Day falling on or before 20 May in Year 1 of the Reserve Capacity Cycle, AEMO must publish the following information in the Constraints Library for the Reserve Capacity Cycle:

(a) the information provided by each Network Operator under clause 4.4B.5; and

(b) the Preliminary RCM Constraint Equations.

The Long Term SWIS Capacity Requirements

4.5. Long Term Projected Assessment of System Adequacy

4.5.1. The Long Term PASA must be performed annually by AEMO and must address each of the years in the Long Term PASA Study Horizon.

4.5.2. The Long Term PASA must take into account:

(a) demand growth scenarios, including peak and annual energy requirements;

(b) expected Demand Side Programme ~~Management~~ capabilities;

(c) generation capacity expected to be available, including details of any Early Certified Reserve Capacity, seasonal capacities, Essential System Service capabilities, long duration outages, and production profiles for Intermittent Generating Systems;

(d) expected transmission network capabilities allowing for expansion plans, losses and constraints;

(e) the capacity described in clause 4.5.2A; and

(f) expected Electric Storage Resource capabilities.

Explanatory Note

Intermittent Load requirements are relevant to Peak Capacity, but not to Flexible Capacity.

4.5.2A. AEMO must determine an estimate of the ~~Reserve~~ Peak Capacity required to cover the forecast cumulative needs of Intermittent Loads such that:

(a) this ~~Reserve~~ Peak Capacity estimate is in addition to the ~~Reserve~~ Peak Capacity required to satisfy clauses 4.5.9(a) and (b) ~~the Planning Criterion~~ in the situation where there were no Intermittent Loads; and

(b) this ~~Reserve~~ Peak Capacity estimate must be set by AEMO to equal the sum over all expected Intermittent Loads of their forecast maximum possible Intermittent Load levels multiplied by:

i. the ratio of:

1. the Peak Reserve Capacity Target for the relevant Capacity Year as described in clause 4.5.10(b)(i); and
2. the expected peak demand for the relevant Capacity Year as described in clause 4.5.10(b)(ii);

ii. minus one.

4.5.3. AEMO must notify Rule Participants of the information that it requires from them in the areas described in clause 4.5.2, in respect of each year of the Long Term PASA Study Horizon, no later than 1 April of Year 1 of the relevant Reserve Capacity Cycle.

4.5.3A. The information requested by AEMO under clause 4.5.3 must include a request for Market Participants to provide to AEMO, for Intermittent Loads and Loads that are expected to be operating as Intermittent Loads during the second Capacity Year commencing during the Long Term PASA Study Horizon, the amount of capacity required to serve the Load in the event of a failure of on-site generation where this amount of capacity cannot exceed the greater of:

(a) the maximum allowed level of Intermittent Load specified in Standing Data for that Intermittent Load at the time of providing the data; and

(b) the Contractual Maximum Demand associated with that Intermittent Load to apply during the Capacity Year to which the nomination relates. The Market Participant must provide evidence to AEMO of this Contractual Maximum Demand level unless AEMO has previously been provided with that evidence.

4.5.4. Rule Participants must provide the data requested by AEMO in accordance with clause 4.5.3 within 15 Business Days from the date of that request.

4.5.5. AEMO may request from persons who are not Rule Participants information in the areas described in clause 4.5.2 in respect of each year of the Long Term PASA Study Horizon.

4.5.6. AEMO must review the information provided to it in accordance with clause 4.5.4 and as a result of a request under clause 4.5.5, and ~~where~~ if necessary, seek clarifications.

4.5.7. AEMO must treat all information provided to it in accordance with clauses 4.5.4, 4.5.5 and 4.5.6 as confidential except where the provider has granted permission for its release or as otherwise provided under these WEM Rules. However, AEMO may release any such information as part of an unidentifiable component of an aggregate number in a Statement of Opportunities Report.

4.5.8. ~~Where~~ If information provided to AEMO in accordance with clauses 4.5.4, 4.5.5 and 4.5.6 is not adequate or is insufficient for the purpose for which it is required, AEMO may make its own estimate and use that estimate in place of information provided in accordance with clauses 4.5.4, 4.5.5 and 4.5.6.

Explanatory Note

The planning criterion is amended to tie the reserve margin to expected Forced Outage rates, decrease the expected unserved energy target, and add a new limb for the Flexible Capacity service. This implements review outcomes 1 and 3 from information paper one and outcome 8 from information paper two.

4.5.9. The Planning Criterion to be used by AEMO in undertaking a Long Term PASA study is that there should be sufficient available capacity in each Capacity Year during the Long Term PASA Study Horizon to:

(a) meet the forecast peak demand (including transmission losses and allowing for Intermittent Loads) supplied through the SWIS plus a reserve margin equal to the greater of:

i. ~~7.6% of~~ the forecast peak demand (including transmission losses and allowing for Intermittent Loads) multiplied by the proportion of capacity expected to be unavailable at the time of peak demand due to Forced Outages excluding Forced Outages of Facilities to which clause 4.11.1(hA) applies; and

ii. the size, in MW, of the largest contingency relating to loss of supply (related to any Facility, including a Network) expected at the time of forecast peak demand (including transmission losses and allowing for Intermittent Loads),

while maintaining the SWIS frequency in accordance with the Normal Operating Frequency Band and the Normal Operating Frequency Excursion Band. The forecast peak demand should be calculated to a probability level that the forecast would not be expected to be exceeded in more than one year out of ten; ~~and~~

(b) limit expected energy shortfalls to 0.0002% of annual energy consumption (including transmission losses and taking into account transmission network capabilities including constraints); and

(c) meet the highest forecast Four-Hour Demand Increase, plus a reserve margin equal to:

i. the highest forecast Four-Hour Demand Increase; multiplied by

ii. the proportion of Flexible Capacity expected to be unavailable at the time of the highest forecast Four-Hour Demand Increase due to Forced Outages.

4.5.10. AEMO must use the information assembled under clauses 4.5.2, 4.5.2A, 4.5.4, 4.5.5, 4.5.6 and 4.5.8 to:

(a) assess the extent to which the anticipated installed capacity of the Energy Producing Systems and Demand Side Programmes ~~Management~~ capacity is capable of satisfying the Planning Criterion, identifying any ~~capacity~~ shortfalls

in Peak Capacity or Flexible Capacity in each Relevant Year in the Long Term PASA Study Horizon, for each of the following scenarios:

i. median peak demand assuming low demand growth;

ii. one in ten year peak demand assuming low demand growth;

iii. median peak demand assuming expected demand growth;

iv. one in ten year peak demand assuming expected demand growth;

v. median peak demand assuming high demand growth;

vi. one in ten year peak demand assuming high demand growth,

where the low, expected, and high demand growth cases reflect demand changes stemming from different levels of economic growth, with these being temperature adjusted to produce the one in ten year peak demand cases.

(b) forecast the expected peak demand and the corresponding Peak Reserve Capacity Target ~~and corresponding expected peak demand~~ for each Capacity Year during the Long Term PASA Study Horizon, where:

i. the Peak Reserve Capacity Target for a Capacity Year is the Peak Capacity ~~capacity~~ required to meet clauses 4.5.9(a) and 4.5.9(b) assuming no network congestion ~~the Planning Criterion~~ in that year under the scenario described in clause 4.5.10(a)(iv); and

ii. the expected peak demand in that year is the peak demand under the scenario described in clause 4.5.10(a)(iv);

Explanatory Note

The expected highest Four-Hour Demand Increase drives the Flexible Reserve Capacity Requirement.

(bA) forecast the expected highest Four-Hour Demand Increase and the corresponding Flexible Reserve Capacity Target for each Capacity Year during the Long Term PASA Study Horizon, where:

i. the Flexible Reserve Capacity Target for a Capacity Year is the greater of:

1. the Flexible Capacity required to meet clause 4.5.9(c) in that year under the scenario described in clause 4.5.10(a)(iii); and

2. the Flexible Capacity required to meet clause 4.5.9(c) in that year under the scenario described in clause 4.5.10(a)(iv);

ii. the expected highest Four-Hour Demand Increase in that year is the greater of:

1. the highest Four-Hour Demand Increase under the scenario described in clause 4.5.10(a)(iii); and

2. the highest Four-Hour Demand Increase underthe scenario described in clause 4.5.10(a)(iv);

Explanatory Note

Clause 4.5.10(bA) is amended to make explicit that AEMO must consider regional capacity shortfalls. These cannot be addressed by increasing the capacity target, only by new capacity in those specific parts of the SWIS.

(c) identify and assess any potential capacity shortfalls isolated to a sub-region of the SWIS resulting from expected restrictions on transmission capability or other factors and which cannot be addressed by additional Peak Capacity outside that sub-region;

(d) identify any potential transmission, generation, storage or demand side capacity augmentation options to alleviate capacity shortfalls identified in clauses 4.5.10(a) and 4.5.10(c); and

(e) develop a two dimensional duration curve of the forecast minimum Peak Capacity ~~capacity~~ requirements over the Capacity Year ("Availability Curve") for each of the second and third Capacity Years of the Long Term PASA Study Horizon. The forecast minimum Peak Capacity ~~capacity~~ requirement for each Trading Interval in the Capacity Year must be determined as the sum of:

i. the forecast demand (including transmission losses and allowing for Intermittent Loads) for that Trading Interval under the scenario described in clause 4.5.10(a)(iv); and

ii. the difference between the Peak Reserve Capacity Target for the Capacity Year and the maximum of the quantities determined under clause 4.5.10(e)(i) for the Trading Intervals in the Capacity Year.

4.5.11. AEMO must publish the Statement of Opportunities Report for a Reserve Capacity Cycle by the date specified in clause 4.1.8.

Explanatory Note

With the expected decrease in traditional generation, it is no longer tenable to set a minimum requirement for Availability Class 1. The two Availability Classes are replaced by three Capability Classes, and shortfalls in duration are addressed by:

- Giving Capability Class 2 Facilities less Capacity Credits than Capability Class 1 Facilities, prorated based on their available fuel.
- Extending the storage requirement for Electric Storage Resources so that, over time, it increases to match the requirement for other technology types. This is done using the ESR Duration Requirement, which is set in year one of a Reserve Capacity Cycle for year three of that cycle. There is no mechanism to reduce the ESR Duration Requirement.

This implements review outcome 8 from information paper one.

The Availability Duration Gap is set based on Electric Storage Resources being available from the First Peak Electric Storage Resource Obligation Interval that applies for the

Capacity Year.

These rules envisage the number of intervals ratcheting up over time. The only way the ESR Duration Requirement could reduce from year to year is with a Rule change resulting from a Coordinator review under clause 4.13B.

This clause also implements the method to determine the DSP minimum dispatch requirement as stated in review outcome 4 in information paper two.

4.5.12. For the second and third Capacity Years of the Long Term PASA Study Horizon, AEMO must determine the following information:

(a) ~~[Blank]~~The Availability Duration Gap Load Scenario, which is the load scenario described in clause 4.5.10(a)(iv), adjusted as if all Capability Class 2 capacity was activated during the Capacity Year so as to minimise the peak demand during that Capacity Year;

(b) the Availability Duration Gap, which is the maximum number of consecutive Trading Intervals adjacent to the Indicative Peak Electric Storage Resource Obligation Intervals in any Trading Day in the Availability Duration Gap Load Scenario in which demand is greater than or equal to demand in any of the Indicative Peak Electric Storage Resource Obligation Intervals for that Trading Day;

~~the minimum capacity required to be provided by Availability Class 1 capacity if Power System Security and Power System Reliability is to be maintained. This minimum capacity is to be set at a level such that if:~~

~~i all Availability Class 2 capacity were activated during the Capacity Year so as to minimise the peak demand during that Capacity Year; and~~

~~ii the Planning Criterion and the criteria for evaluating Outage Plans set out in clause 3.18E.8 were to be applied to the load scenario defined by clause 4.5.12(b)(i), then~~

~~it would be possible to satisfy the Planning Criterion and the Outage Evaluation Criteria, as applied in clause 4.5.12(b)(ii), using, to the extent that the capacity is anticipated to provide Certified Reserve Capacity, the anticipated installed Availability Class 1 capacity and to the extent that further Availability Class 1 capacity would be required, an appropriate mix of Availability Class 1 capacity to make up that shortfall; and~~

(c) ~~the capacity associated with Availability Class 2, where this is equal to the Reserve Capacity Target for the Capacity Year less the minimum capacity required to be provided by Availability Class 1 capacity under clause 4.5.12(b).~~the ESR Duration Requirement, which is the ESR Duration Requirement for the previous Capacity Year plus the Availability Duration Gap;

(d) the maximum difference for any Trading Day in the Availability Duration Gap Load Scenario between:

i. the maximum demand of all Trading Intervals that are not Indicative Peak Electric Storage Resource Obligation Intervals in that Trading Day; and

ii. the maximum demand of all Trading Intervals that are Indicative Peak Electric Storage Resource Obligation Intervals in that Trading Day,

multiplied by 2 to convert to MW; and

Explanatory Note

The maximum number of hours per year that a Demand Side Programme can be dispatched will now depend on the quantity of Capacity Credits on issue to DSPs.

(e) the MW peak demand in the load scenario described in clause 4.5.10(a)(iii) less the number of Capacity Credits issued to Demand Side Programmes in the most recent Reserve Capacity Cycle ("**Indicative Demand Side Programme Dispatch Threshold**");

(f) the Demand Side Programme Dispatch Requirement, which is the number of Trading Intervals in the load scenario described in clause 4.5.10(a)(iv) in which the MW demand exceeds the Indicative Demand Side Programme Dispatch Threshold.

4.5.13. The Statement of Opportunities Report must include:

(a) the input information assembled by AEMO in performing the Long Term PASA study including, for each Capacity Year of the Long Term PASA Study Horizon:

i. the demand growth scenarios used;

ii. the capacities of each energy producing Registered Facility to provide Peak Capacity and Flexible Capacity;

iii. the generation capacities of each committed energy producing project to provide Peak Capacity and Flexible Capacity;

iv. the generation capacities of each probable energy producing project to provide Peak Capacity and Flexible Capacity;

v. the Demand Side Programme ~~Management~~ capability and availability to provide Peak Capacity and Flexible Capacity;

vA. the amount of ~~Reserve~~ Peak Capacity forecast to be required to serve the aggregate Intermittent Load;

vi. the assumptions about transmission network capacity, losses and network and security constraints that impact on study results; and

vii. a summary of the method~~ology~~ used in determining the values and assumptions specified in (i) to (vi), including methodological changes relative to previous Statement of Opportunities Reports;

(b) the Peak Reserve Capacity Target and the Flexible Reserve Capacity Target for each Capacity Year of the Long Term PASA Study Horizon;

(c) the amount by which the installed Energy Producing System capacity plus the Demand Side Programme capability ~~Management~~ available exceeds or falls short of the Peak Reserve Capacity Target for each Capacity Year and each demand growth scenario considered in the study;

(cA) the amount by which the installed Energy Producing System capacity plus the Demand Side Programme capability available exceeds or falls short of the Flexible Reserve Capacity Target for each Capacity Year;

Explanatory Note

This clause is amended to more clearly require AEMO to assess shortfalls in sub-regions of the SWIS, driven by network constraints.

(d) the sub-regions of the SWIS in which AEMO has identified capacity shortfalls under clause 4.5.10(c), the size of those shortfalls, and the expected energy not served in each sub-region for each Capacity Year and each demand growth scenario considered in the study; ~~the extent to which localised supply restrictions will exist while satisfying the Reserve Capacity Target for each Capacity Year and each demand growth scenario considered in the study;~~

(e) a statement of potential Energy Producing System, Demand Side Programme ~~demand side~~ and transmission options that would alleviate capacity shortfalls relative to the Reserve Capacity Targets and to capacity requirements in Electrical Locations of the SWIS;

(eA) information used by AEMO to apportion peak demand under clause 4.5.10(a)(iv) across Electrical Locations reflecting information provided under clause 4.4B.5;

(eB) for each Capacity Year of the Long Term PASA Horizon:

i. any planned changes (other than augmentations covered by clause 4.5.13(eB)(ii)) that are expected to impact Network limits or constraints;

ii. any planned augmentations to the SWIS, including augmentations to be paid for by an applicant seeking access, or increase to an Arrangement for Access, to the transmission system that is publicly available information and of which AEMO is aware;

iii. any Network limitations identified in the Network Access Quantity Model outputs in the immediately preceding Reserve Capacity Cycle; and

iv. details of each Facility for which AEMO has received a notice under clause 4.4A.1 where the intention is for the Facility to cease operation permanently;

(f) the Availability Curve for the second and third Capacity Years of the Long Term PASA Study Horizon; and

(g) the quantities determined under clause 4.5.12 for the second and third Capacity Years of the Long Term PASA Study Horizon.

4.5.14. AEMO must document the procedure it follows in conducting the Long Term PASA in a WEM Procedure.

4.5.15. From time to time, and at least once in every five year period starting from 1 July 2021 the Coordinator, with the assistance of AEMO, must conduct a review of the Planning Criterion and the process in the WEM Procedure specified in clause 4.5.14 by which AEMO forecasts SWIS peak demand. This review must include:

(a) a review of the technical analysis; and

(b) a cost-benefit study on the effects on stakeholders of a variety of levels of generation adequacy.

4.5.16. In conducting a review under clause 4.5.15, the Coordinator must invite submissions from Rule Participants on the performance of the Planning Criterion and the process by which AEMO forecasts SWIS peak demand and expected system-wide ramp rates ~~from Rule Participants~~, and must specify a reasonable time by which submissions must be lodged. The Coordinator must take into account in the review any submissions received within the time specified, and may take into account any late submission.

4.5.17. The Coordinator must make available a draft of the report described in clause 4.5.18 to Rule Participants for comment and invite submissions on the draft report. The Coordinator must specify a reasonable time by which submissions must be lodged, and must take into account any submissions received within the time specified, and may take into account any late submission.

4.5.18. After concluding the review described in clause 4.5.15, the Coordinator must publish a final report containing:

(a) issues identified by the Coordinator;

(b) assumptions made by the Coordinator in undertaking the review;

(c) submissions received by the Coordinator from Rule Participants in accordance with clause 4.5.16;

(d) the Coordinator's responses to the issues raised in those submissions;

(e) the results of the technical and cost-benefit studies;

(f) the submissions on the draft report received by the Coordinator from Rule Participants in accordance with clause 4.5.17;

(g) the Coordinator's responses to the issues raised in those submissions; and

(h) any recommended changes to the Planning Criterion.

4.5.19. ~~Where~~ If the Coordinator finds that a change to the process by which AEMO forecasts SWIS peak demand would be beneficial in light of the Wholesale Market Objectives, it must:

(a) make a Rule Change Proposal to implement the change; and/or

(b) make a Procedure Change Proposal to implement the change.

4.5.20. If the Coordinator contracts with a third party to conduct any analysis required under this section 4.5, then:

(a) the Coordinator must ensure that the third party is familiar with the method~~ology~~ employed in conducting the analysis required under this section 4.5 in previous years; and

(b) the Coordinator must approve any variations in the process to be used by that third party and variations may only be accepted if not inconsistent with the requirements specified in the WEM Rules or a WEM Procedure.

4.5A. Whole of System Plan

4.5A.1. The Coordinator must prepare and publish on the Coordinator's Website a Whole of System Plan in accordance with this section 4.5A.

4.5A.2. The Coordinator must prepare and publish a Whole of System Plan by 30 September 2025 and then at least once every five years thereafter.

4.5A.3. If, after a Whole of System Plan is published, new information becomes available that, in the Coordinator's opinion, may materially affect one or more of the outcomes specified in the current Whole of System Plan, the Coordinator may update that Whole of System Plan.

4.5A.4. A Whole of System Plan remains in effect until:

(a) a subsequent Whole of System Plan is published pursuant to clause 4.5A.2; or

(b) in respect to a part of the Whole of System Plan, an update to that part of the Whole of System Plan is published in accordance with clause 4.5A.3.

4.5A.5. The purposes of a Whole of System Plan are to:

(a) plan for the efficient development of the SWIS to meet the power system needs of the SWIS including with respect to Power System Security and Power System Reliability for a planning horizon of at least 20 years;

(b) assist in the transition to a lower-emissions power system by guiding the efficient integration of renewable generation and identifying opportunities for new technologies, such as energy storage;

(c) identify requirements for network investment and inform the regulatory test for network projects;

(d) inform industry's decisions regarding efficient power system investment opportunities in the SWIS; and

(e) inform policy makers on the future needs of the power system.

4.5A.6. A Whole of System Plan must:

(a) identify options for the development of the SWIS to maintain Power System Security and Power System Reliability at the lowest sustainable cost across demand growth scenarios, including peak and annual energy requirements;

(b) test alternative scenarios through the use of modelling and sensitivities, including the assessment of the impact on the power system and its various components across the different scenarios;

(c) identify investment options that would minimise costs to consumers; and

(d) test alternative network investment options and identify optimal network investment options.

4.5A.7. In preparing a Whole of System Plan, the Coordinator must develop an approach to:

(a) determining the scenarios to be modelled;

(b) the modelling method~~ology~~ to apply; and

(c) the method for selecting optimal network investment options.

4.5A.8. The Coordinator must publish on the Coordinator's Website:

(a) the Coordinator's approach to each of the matters referred to in clause 4.5A.7; and

(b) guidance on the information and assistance to be provided by AEMO, Western Power and other Rule Participants in accordance with clause 4.5A.11,

prior to developing the Whole of System Plan that is required to be developed by the Coordinator under clause 4.5A.2 by 30 September 2025.

4.5A.9. The Coordinator may from time to time amend the Coordinator's approach to any of the matters referred to in clause 4.5A.7 by publishing the updated approach on the WEM Website.

4.5A.10. The Coordinator must collaborate with AEMO and Western Power in preparing the Whole of System Plan.

4.5A.11. At the request of the Coordinator, AEMO, Western Power and other Rule Participants must provide information and assistance, which is, in the Coordinator's opinion, necessary or desirable to enable the Coordinator to effectively prepare a Whole of System Plan.

4.5A.12. In preparing a Whole of System Plan, the Coordinator may, in addition to the matters referred to in this section 4.5A, consider any other matters and information the Coordinator considers relevant.

4.5A.13. Before publishing a Whole of System Plan under clause 4.5A.1, the Coordinator must:

(a) publish a draft Whole of System Plan; and

(b) invite Rule Participants and other interested persons, including proponents of non-network options, to make submissions on the draft Whole of System Plan by no later than a specified date (with the date to be specified by the Coordinator to be no earlier than 20 Business Days after the date on which the draft Whole of System Plan is published).

4.5A.14. A draft Whole of System Plan must:

(a) identify a range of scenarios;

(b) for each identified scenario, identify development options and potential projects;

(c) describe how each identified scenario performs under any reasonable sensitivities;

(d) assess the impact of each identified scenario on the power system and its various components;

(e) include the results of the assessment for each identified scenario, together with an explanatory statement regarding the results;

(f) include relevant information about network constraints, development opportunities across both the transmission and the distribution systems;

(g) identify any Priority Project that Western Power is able to progress in accordance with the relevant provisions of the Electricity Network Access Code; and

(h) provide an initial assessment, developed in consultation with each Network Operator, of whether non-network options are reasonably likely to meet a relevant identified network need.

4.5A.15. The Coordinator must provide a copy of a Whole of System Plan to the Minister before publishing it in accordance with clause 4.5A.1.

4.5A.16. The Whole of System Plan to be published by the Coordinator under clause 4.5A.1 must include:

(a) all relevant matters referred to in clauses 4.5A.6 and 4.5A.14;

(b) a summary of each submission received on the draft Whole of System Plan and the Coordinator’s response to it; and

(c) any other matters the Coordinator considers relevant to the Whole of System Plan.

4.5B. Transmission System Plan

4.5B.1. A Network Operator must develop a Transmission System Plan, and publish it on the Network Operator's website, in accordance with this section 4.5B.

4.5B.2. A Network Operator must publish a Transmission System Plan by no later than 1 October each year, in conjunction with its Network Opportunity Map.

4.5B.3. A Transmission System Plan must:

(a) establish a plan for the efficient development of a transmission system for a planning horizon of at least 10 years;

(b) meet the Power System Security and Power System Reliability requirements; and

(c) be in the long-term interests of consumers.

4.5B.4. A Transmission System Plan must include:

(a) a summary of any significant costs to the Wholesale Electricity Market that have arisen, or may potentially arise, due to the condition of the transmission network, including:

i. binding Network Constraints, and the estimated market costs of those binding Network Constraints; and

ii. the frequency and magnitude of Energy Uplift Payments, including for Facilities subject to Network Constraints;

(b) a set of investment options for developing the transmission system over the relevant planning horizon, which must consider network and non-network solutions to address the matters identified under clause 4.5B.4(a);

(c) analysis of market related data and an assessment of the costs and benefits, including to the Wholesale Electricity Market, of the investment options identified under clause 4.5B.4(b);

(d) a recommended development path for the transmission system that would maximise net benefits and seek to minimise the long-term costs of electricity supplied to consumers; and

(e) a high-level assessment of how the recommended development path referred to in clause 4.5B.4(d) will meet the long-term interests of consumers.

4.5B.5. In developing a Transmission System Plan a Network Operator must take into account:

(a) the WEM Technical Standards under clause 2.8.14;

(b) power system security and reliability standards and requirements under the WEM Rules and the Technical Rules;

(c) any Priority Project identified in the Whole of System Plan or major augmentation that Western Power is able to progress in accordance with the Access Code;

(d) the Network Quality and Reliability of Supply Code;

(e) any government policy specified in the Whole of System Plan that the Coordinator considers may impact on the development of the Transmission System Plan, as may be advised by the Coordinator pursuant to the consultation process referred to in clause 4.5B.6 or specified in the Whole of System Plan published by the Coordinator under section 4.5A; and

(f) any other matters that the Network Operator considers relevant to the Transmission System Plan.

4.5B.6. A Network Operator must consult with AEMO and the Coordinator on the assumptions, inputs and scenarios the Network Operator must use in developing and updating a Transmission System Plan, including:

(a) forecasted demand growth or reduction scenarios, including from the Long Term PASA and Whole of System Plan;

(b) scheduled connection of new loads or generators;

(c) expected Network modifications, augmentations, or retirement of existing Facilities or Network assets that impact costs in the Wholesale Electricity Market;

(d) the Credible Contingency Events and other commonly occurring credible contingencies that may significantly impact the SWIS;

(e) a range of facility dispatch scenarios or credible dispatch patterns;

(f) data, modelling and results from the testing of scenarios in the Whole of System Plan, to the extent they are relevant as inputs to the Transmission System Plan;

(g) relevant information from the Short Term PASA, Medium Term PASA and Long Term PASA studies conducted by AEMO under these WEM Rules; and

(h) other market information that the Network Operator, AEMO or the Coordinator considers relevant to meeting the requirements for developing the Transmission System Plan in this section 4.5B.

4.5B.7. If, in the Network Operator's opinion, new information becomes available that should be used in place of the inputs from the Whole of System Plan specified in clause 4.5B.6(f), the Network Operator must consult with AEMO and the Coordinator on the accuracy and relevance of the new information for use in developing and updating the Transmission System Plan.

4.5B.8. A Network Operator may review the Transmission System Plan, or a part of it, in consultation with AEMO and the Coordinator, ~~where~~ if there is a material change in any of the assumptions, inputs or scenarios under clause 4.5B.6 or to a WEM Technical Standard.

4.5B.9. Before publishing a Transmission System Plan under clause 4.5B.1, a Network Operator must:

(a) publish a draft Transmission System Plan;

(b) invite users of the Network, other Rule Participants, electricity consumers and other interested persons to make submissions on the draft Transmission System Plan by no later than a specified date (with the date to be specified by the Network Operator to be no earlier than 20 Business Days after the date on which the draft Transmission System Plan is published).

4.5B.10. A Network Operator must:

(a) take into account any submissions received on the draft Transmission System Plan; and

(b) publish on the Network Operator's website a summary of each submission received on the draft Transmission System Plan and the Network Operator's response to it, redacting any commercially sensitive or other confidential information.

4.6. Reserve Capacity Requirements

4.6.1. The Peak Reserve Capacity Requirement for a Reserve Capacity Cycle is the Peak Reserve Capacity Target for the Capacity Year commencing on 1 October of Year 3 of a Reserve Capacity Cycle as reported in the Statement of Opportunities Report for that Reserve Capacity Cycle.

4.6.1A. The Flexible Reserve Capacity Requirement for a Reserve Capacity Cycle is the Flexible Reserve Capacity Target for the Capacity Year commencing on 1 October of Year 3 of a Reserve Capacity Cycle as reported in the Statement of Opportunities Report for that Reserve Capacity Cycle.

4.6.2. The expected peak demand corresponding to the Peak Reserve Capacity Requirement is the forecasted value determined in accordance with clause 4.5.10(b)(ii) for the Capacity Year commencing on 1 October of Year 3 of a Reserve Capacity Cycle.

4.6.2A The expected highest Four-Hour Demand Increase corresponding to the Flexible Reserve Capacity Requirement is the forecasted value determined in accordance with clause 4.5.10(bA)ii for the Capacity Year commencing on 1 October of Year 3 of a Reserve Capacity Cycle.

4.6.3. The preliminary Reserve Capacity Requirements for a Reserve Capacity Cycle to be included in the relevant Request for Expression of Interest are ~~is~~ the Reserve Capacity Targets for the Capacity Year commencing on 1 October of Year 3 of the Reserve Capacity Cycle as reported in the Statement of Opportunities Report for the preceding Reserve Capacity Cycle.

Certification of Reserve Capacity

4.7. The Reserve Capacity Information Pack

4.7.1. [Blank]

4.7.2. By the time specified in clause 4.1.10, AEMO must publish the Reserve Capacity Information Pack for a Reserve Capacity Cycle on the WEM Website.

4.7.3. The Reserve Capacity Information Pack for a Reserve Capacity Cycle must include the following information:

(a) the Reserve Capacity Requirements for the Reserve Capacity Cycle, as determined in accordance with clause 4.6.1 and clause 4.6.1A;

Explanatory Note

The new rules no longer set a minimum class 1 requirement, but extend the ESR duration requirement over time. Providing data on the Availability Duration Gap Load Scenario will give participants information to do their own analysis on the likely storage duration requirement.

(b) an explicit description of the Availability Duration Gap Load Scenario to be used in setting the ESR Duration Requirement; ~~Availability Curve to be used in restricting the amount of Reserve Capacity only available for a limited number of hours per year that can be traded bilaterally in accordance with clause 4.14.9~~; and

(c) instructions as to how to obtain from the WEM Website a copy of:

i. ~~-~~the Request for Expression of Interest; and

ii. the report described in clause 4.2.7,

for the Reserve Capacity Cycle.

4.8. Who Can Apply for Certification of Reserve Capacity

4.8.1. ~~Subject to clause 4.8.2, a~~ A Market Participant may apply for certification of the amount of Reserve Capacity which can be provided by a Facility if:

(a) the Facility is a Registered Facility other than a Network; or

(b) the Facility is not a Registered Facility but the Market Participant intends to have the Facility registered as a Registered Facility other than a Network by

the commencement date of the Reserve Capacity Obligations for the relevant Reserve Capacity Cycle as specified in clause 4.1.26.

Explanatory Note

Participants are no longer required to submit Expressions of Interest to be awarded Certified Reserve Capacity.

~~4.8.2. Subject to clause 4.8.3, AEMO must not accept an application for certification of Reserve Capacity under clause 4.8.1 for a Reserve Capacity Cycle, for a facility, or an upgrade of a Facility, that has not been assigned Capacity Credits in a previous Reserve Capacity Cycle, unless an Expression of Interest for the facility, or upgrade of the Facility, for that Reserve Capacity Cycle has been provided to AEMO under clause 4.2.6.~~

~~4.8.3. Clause 4.8.2 does not apply to:~~

~~(a) an application for Early Certified Reserve Capacity submitted under clause 4.28C.2 for a facility, or an upgrade of a Facility; or~~

~~(b) an application for Conditional Certified Reserve Capacity submitted under clause 4.9.1(b) for a facility; or~~

~~(c) an application for Certified Reserve Capacity submitted under clause 4.9.1(a) for a Facility subject to an NCESS Contract.~~

Indicative Facility Class and Facility Technology Type

4.8A. Indicative Facility Class and Indicative Facility Technology Type

Explanatory Note

Participants are no longer required to submit Expressions of Interest to be awarded Certified Reserve Capacity.

The submission of an EOI for a new Facility previously triggered the requirement for AEMO to assign an indicative Facility Class. Now that the EOI process is not mandatory, the indicative Facility Class process will instead be triggered by the submission of the application for Certified Reserve Capacity.

4.8A.1. ~~Where~~ If AEMO receives an application for Certified Reserve Capacity ~~Expression of Interest~~ in relation to a new facility or facility upgrade in accordance with clause 4.9.1 ~~4.2.6~~, by the date ten business days after the date that the application was submitted ~~and time specified in clause 4.1.7~~, AEMO must:

(a) assign an indicative Facility Class and one or more indicative Facility Technology Type, ~~where~~ if relevant, to the new facility or facility upgrade in accordance with the WEM Procedure referred to in clause 4.8A.7; and

(b) notify the person who submitted the application for Certified Reserve Capacity ~~Expression of Interest~~ of the indicative Facility Class and indicative Facility Technology Types assigned to the new facility or facility upgrade.

4.8A.1A If AEMO assigns an indicative Facility Class that is different to the Facility Class proposed by the person who submitted the application for Certified Reserve Capacity, that person must submit any additional information required under clause 4.10.1 for the indicative Facility Class by the later of:

(a) the date specified in clause 4.1.11; and

(b) ten business days after the date that AEMO provided notification under clause 4.8A.1(b).

4.8A.2. AEMO may, if it reasonably considers it is required to enable it to carry out its obligations under clause 4.8A.1, request clarification or further information from the person who submitted the relevant Expression of Interest and that person must comply with the request by the time specified in the request.

4.8A.3. A person that intends to apply for:

(a) Early Certified Reserve Capacity under section 4.28C for a new facility or facility upgrade; or

(b) Conditional Certified Reserve Capacity under clause 4.9.1(b) for a new facility; or

(c) Certified Reserve Capacity under clause 4.9.1(a) for a new Facility subject to an NCESS Contract,

must, prior to submitting the application, apply to AEMO for an indicative Facility Class and one or more indicative Facility Technology Type to be assigned to the facility or facility upgrade.

4.8A.4. An application under clause 4.8A.3 must include the information required under clause 4.4.1.

4.8A.5. ~~Where~~ If AEMO receives an application under clause 4.8A.3, AEMO must:

(a) assign an indicative Facility Class and one or more indicative Facility Technology Type to the new facility or facility upgrade in accordance with the WEM Procedure referred to in clause 4.8A.7; and

(b) notify the applicant of the indicative Facility Class and indicative Facility Technology Types assigned to the new facility or facility upgrade; or

(c) request the applicant provide clarification or further information, in which case, the application submitted by the applicant under clause 4.8A.3 will be deemed to be withdrawn and then resubmitted under clause 4.8A.3 once AEMO receives the clarification or further information.

4.8A.6. AEMO must notify the applicant of the indicative Facility Class and indicative Facility Technology Types assigned to the new facility or facility upgrade under clause 4.8A.5(b) within 30 days of the later of:

(a) receipt of the application under clause 4.8A.3; and

(b) receipt of any clarification or further information requested from the applicant under clause 4.8A.5(c) in relation to the application.

4.8A.7. AEMO must document the following in a WEM Procedure:

(a) the processes to be followed by AEMO in determining and assigning an indicative Facility Class and an indicative Facility Technology Type to a new facility or facility upgrade under this section 4.8A or an unregistered facility under clause 1.45.9;

(b) the processes to be followed by AEMO in determining and assigning an RCM Facility Class (as defined in clause 1.45.1) and Facility Technology Type to a Registered Facility under section 1.45;

(c) the information required to be provided in support of an application under clause 4.8A.3;

(d) the processes to be followed by an applicant in relation to making an application under clauses 1.45.4, 1.45.8 or 4.8A.3; and

(e) any other matters AEMO considers relevant.

4.9. Process for Applying for Certification of Reserve Capacity

4.9.1. Applications for certification of Reserve Capacity:

(a) for the current Reserve Capacity Cycle may be lodged with AEMO from the date and time specified in clause 4.1.7 and until the time specified in clause 4.1.11; and

(b) for a future Reserve Capacity Cycle may be lodged with AEMO at any time prior to the date and time specified in clause 4.1.7 for the Reserve Capacity Cycle to which the application relates. To avoid doubt, an application for Early Certified Reserve Capacity must be made under and in accordance with section 4.28C.

4.9.2. Only the Market Participant which has registered a Facility, or which intends to register a Facility, may apply for certification of Reserve Capacity in respect of that Facility.

4.9.3. A Market Participant applying for certification of Reserve Capacity must provide to AEMO:

(a) the data specified in clause 4.10.1, in the format specified in the WEM Procedure referred to in clause 4.9.10;

(b) in the case of an application for certification of Reserve Capacity for a Non-Scheduled Facility (excluding where clause 4.11.1(bD)(ii) applies) or an Intermittent Generating System that is yet to enter service, the report described in clause 4.10.3;

(bA) in the case of an application for certification of Reserve Capacity for a Facility containing an Intermittent Generating System which has installed Facility Sub-Metering in accordance with clause 2.29.12, the data from the Facility Sub-Metering for the period identified in step 1(a) of the Relevant Level Method ~~Methodology~~ during which the Facility Sub-Metering was installed; and

(c) in the case of an application for conditional certification for a future Reserve Capacity Cycle, or a subsequent application for Early Certified Reserve Capacity for a Facility for the same Reserve Capacity Cycle, an Application Fee to cover the cost of processing the application.

4.9.4. Applications for certification of Reserve Capacity must be made in the form prescribed by AEMO.

Explanatory Note

Conditional Certified Reserve Capacity is restricted to Peak Capacity only.

4.9.5. If AEMO assigns Peak Certified Reserve Capacity to a Facility for a future Reserve Capacity Cycle under section 4.11 ("**Conditional Certified Reserve Capacity**"):

(a) the Conditional Certified Reserve Capacity is conditional upon the information included in the application for Peak Certified Reserve Capacity remaining correct as at the date and time specified in clause 4.1.11 for that future Reserve Capacity Cycle;

(b) the Market Participant holding the Conditional Certified Reserve Capacity must, in accordance with clauses 4.9.1 and 4.9.3, re-lodge an application for Peak Certified Reserve Capacity with AEMO between the date and time specified in clause 4.1.7 and the time specified in clause 4.1.11 for that future Reserve Capacity Cycle;

(c) if AEMO is satisfied that the application re-lodged in accordance with clause 4.9.5(b) is consistent with the information upon which the Conditional Certified Reserve Capacity was assigned and is correct, then AEMO must confirm:

i. the Peak Certified Reserve Capacity;

ii. [Blank]; and

iii. the Reserve Capacity Security or ~~DSM~~DSP Reserve Capacity Security levels,

that were previously conditionally assigned, set or determined by AEMO, except that ~~subject to~~ the Peak Certified Reserve Capacity for a Non-Scheduled Facility (excluding where clause 4.11.1(bD)(ii) applies) or an

Intermittent Generating System ~~being~~must be redetermined and assigned in accordance with clause 4.11.2(b) for the current Reserve Capacity Cycle; and

(d) if the application re-lodged in accordance with clause 4.9.5(b) is found by AEMO to be inaccurate or is not consistent with the information upon which the Conditional Certified Reserve Capacity was assigned, then AEMO must process the application without regard for the Conditional Certified Reserve Capacity.

4.9.6. AEMO must notify an applicant for certification of Reserve Capacity of receipt of the application within one Business Day of receipt.

4.9.7. If a Market Participant fails to receive notification of receipt from AEMO in accordance with clause 4.9.6, then it must contact AEMO and arrange for re-submission of the information prior to the time and date specified in clause 4.1.11.

4.9.7A. ~~Where~~ If AEMO has received an application for certification of Peak ~~Reserve~~ Capacity under clause 4.9.1 for a future Reserve Capacity Cycle, AEMO must process the application ~~will be processed by AEMO~~ at the time AEMO next processes applications for Peak Certified Reserve Capacity for a Reserve Capacity Cycle in accordance with section 4.11.

4.9.8. AEMO must notify applicants for certification of Reserve Capacity for:

(a) the current Reserve Capacity Cycle, of the quantity of ~~the~~Peak Certified Reserve Capacity and Flexible Certified Reserve Capacity assigned to each Facility covered by the application, by the date and time specified in clause 4.1.12;

(b) a future Reserve Capacity Cycle, of the quantity of Conditional Certified Reserve Capacity assigned to each Facility covered by that application by the date and time specified in clause 4.1.12 in the Reserve Capacity Cycle when AEMO next processes applications for Peak Certified Reserve Capacity in accordance with section 4.11.

4.9.9. AEMO must decide whether or not to assign Certified Reserve Capacity to a Facility in respect of a Reserve Capacity Cycle, and if so, the quantity to be assigned. If AEMO decides to assign Certified Reserve Capacity to a Facility in respect of a Reserve Capacity Cycle, AEMO must advise the applicant:

(a) of the quantity ~~amount~~ of Peak Certified Reserve Capacity and Flexible Certified Reserve Capacity assigned to the Facility in respect of the Reserve Capacity Cycle, as determined in accordance with section 4.11 or clause 4.9.5(c) (as applicable);

(b) [Blank]

(c) of any Reserve Capacity Security or ~~DSM~~DSP Reserve Capacity Security required as a condition of a Market Participant holding the Certified Reserve

Capacity, as determined in accordance with clauses 4.13.2, 4.13A.1, 4.13A.4 or 4.9.5(c) (as applicable);

(d) in the case of Conditional Certified Reserve Capacity, that the certification is subject to the conditions in clauses 4.9.5(a) and 4.9.5(b);

(e) upon the request of the applicant, of the calculations upon which AEMO's determinations are based; and

(f) whether AEMO accepted or rejected a proposed alternative value to be used in the calculation of the Required Level for a Facility assessed under the Relevant Level Method ~~methodology described in clause 4.11.2(b)~~ in its application for certification of Reserve Capacity, as determined in accordance with clause 4.11.2A, if applicable.

4.9.9A. AEMO must publish, by the date and time specified in clause 4.1.15A, the quantity ~~level~~ of Peak Certified Reserve Capacity and Flexible Certified Reserve Capacity assigned to each Facility.

4.9.10. AEMO must document the following in a WEM Procedure:

(a) the procedures that Market Participants must follow when applying for Certified Reserve Capacity;

(aA) the method that AEMO uses to determine the system demand profiles required under step B.2 of Appendix 9;

(b) the method~~ology~~ AEMO uses for determining Planned Outage rates and Forced Outage rates, which must treat Charge Level shortfalls for Electric Storage Resources, as calculated under clause 4.26.1E, as Forced Outages; and

(c) the procedures AEMO must follow when processing applications for Certified Reserve Capacity, including:

i. how Certified Reserve Capacity is assigned; and

ii. how AEMO will account for any degradation of an Electric Storage Resource, based on:

1. the performance standards and specifications for the Electric Storage Resource provided by the relevant manufacturer; and

2. the performance of the Electric Storage Resource in the Capacity Year at the time the application for certification of Reserve Capacity is required to be processed, ~~where~~ if available.

4.10. Information Required for the Certification of Reserve Capacity

4.10.1. Each Market Participant must ensure that information submitted to AEMO with an application for certification of Reserve Capacity pertains to the Reserve Capacity Cycle to which the certification relates, and is supported by documented evidence

and includes, ~~where~~ if applicable, except to the extent that it is already accurately provided in Standing Data~~, the following information~~:

(a) the identity of the Facility;

(b) the Reserve Capacity Cycle to which the application relates;

(bA) with the exception of applications for Conditional Certified Reserve Capacity, the following:

i. evidence of an Arrangement for Access or evidence that the Market Participant has accepted an Access Proposal from the relevant Network Operator made in respect of the Facility or other evidence that the Facility will have an Arrangement for Access;

ii. evidence that the Facility will be entitled to have access from a specified date occurring prior to the date specified in clause 4.10.1(c)(iii)(7); and

iii. except ~~where~~ if the Facility is a Demand Side Programme, the Declared Sent Out Capacity for the Facility at the relevant connection point;

(c) if the Facility, or part of the Facility, is yet to enter service:

i. [Blank]

ii. with the exception of applications for Conditional Certified Reserve Capacity, evidence that any necessary Environmental Approvals have been granted or evidence supporting the Market Participant's expectation that any necessary Environmental Approvals will be granted in time to have the Facility meet its Reserve Capacity Obligations by the date specified in clause 4.10.1(c)(iii)(7); and

iii. the Key Project Dates occurring after the date the request is submitted, including, if applicable, but not limited to:

1. when all approvals will be finalised or, in the case of Demand Side Programmes, when all required contracts will be in place;

2. when financing will be finalised;

3. when site preparation will begin;

4. when construction will commence;

5. when generating equipment will be installed or, in the case of Demand Side Programmes, when all required control equipment will be in place;

6. when the Facility, or part of the Facility, will be ready to undertake Commissioning Tests; and

7. when the Facility, or part of the Facility, will have completed all Commissioning Tests and be capable of meeting Reserve Capacity Obligations in full;

(d) if the Facility is a Registered Facility that will be decommissioned prior to the date specified in clause 4.1.30(a) for the Reserve Capacity Cycle to which the application relates, the planned decommissioning date;

(dA) except ~~where~~ if the Facility is a Demand Side Programme, a description and a configuration of the main components of the Facility including the nameplate capacity of each component, expressed in MW;

(dB) for a Semi-Scheduled Facility or Scheduled Facility, the minimum stable loading level of the Facility expressed in MW;

(e) for a Non-Intermittent Generating System:

i. the capacity of the Non-Intermittent Generating System and the temperature dependence of that capacity;

ii. the maximum sent out capacity, net of Loads, that can be guaranteed to be available for supply to the relevant Network from the Non-Intermittent Generating System when it is operated normally at an ambient temperature of 41 degrees Celsius;

iii. [Blank]

iv. at the option of the applicant, the method to be used to measure the ambient temperature at the site of the Non-Intermittent Generating System for the purpose of defining the Peak Reserve Capacity Obligation Quantity, where the method specified may be either:

1. a publicly available daily maximum temperature at a location representative of the conditions at the site of the Facility as reported daily by a meteorological service; or

2. a daily maximum temperature measured at the site of the Facility by the SCADA system operated by AEMO or the relevant Network Operator (as applicable).

~~(Where~~ If no method is specified, AEMO must use a temperature of 41 degrees Celsius ~~will be assumed)~~;

Explanatory Note

The footnote has been deleted, as it should have been an explanatory note to the drafting.

v. details of primary and any alternative fuels,[1] including:

1. ~~where~~ if the Non-Intermittent Generating System has primary and alternative fuels:

[1] ~~A Facility may satisfy its fuel obligations using a combination of primary and alternative fuels.~~

i. the process for changing from one fuel to another; and

ii. the fuel or fuels which the Non-Intermittent Generating System is to use in respect of the application for Certified Reserve Capacity; and

2. details acceptable to AEMO together with supporting evidence of both firm and any non-firm fuel supplies and the factors that determine restrictions on fuel availability that could prevent the Non-Intermittent Generating System operating at its full capacity during Capability Class 1 Availability Assessment Intervals ~~for Peak Trading Intervals~~ on Business Days;

vi. the expected forced and unforced outage rate based on manufacturer data; and

vii. for Non-Intermittent Generating Systems that operated for at least 12 months, the forced and unforced outage rate of the Non-Intermittent Generating System;

(f) for Demand Side Programmes:

i. if the Demand Side Programme has, or is expected to have, a single Associated Load, the quantity ~~amount~~ of Peak Capacity ~~Reserve Capacity~~ the Market Participant expects to make available from the Facility;

iA. if the Demand Side Programme has, or is expected to have more than one Associated Load, the quantity of Peak Capacity that the Market Participant nominates to apply for the Demand Side Programme;

iB. if the Demand Side Programme has, or is expected to have, a single Associated Load, the quantity of Flexible Capacity the Market Partipant expects to make available from the Facility;

iC. if the Demand Side Programme has, or is expected to have more than one Associated Load, the quantity of Flexible Capacity that the Market Participant nominates to apply for the Demand Side Programme;

ii. the maximum number of Trading Intervals ~~hours~~ that the Demand Side Programme will be available to provide Reserve Capacity during a Capacity Year, which must be at least ~~200 hours~~ the Demand Side Programme Dispatch Requirement for that Reserve Capacity Cycle;

iii. the maximum number of Trading Intervals per Trading Day ~~hours per day~~ that the Facility will be available to provide Reserve Capacity if issued a Dispatch Instruction, where this must be at least ~~twelve hours~~ twenty four Trading Intervals for Peak Capacity and at least eight Trading Intervals for Flexible Capacity;

iv. [Blank]

v. the minimum notice period required for dispatch under clause 7.6.15 of the Facility;

vi. the periods when the Facility can be dispatched, which must include the period between 8:00 AM and 8:00 PM on all Business Days; and

vii. [Blank]

viii. the single Transmission Node Identifier for the Facility;

(fA) for an Electric Storage Resource, except ~~where~~ if clause 4.10.1(fD) applies:

i. the nameplate capacity and maximum and minimum Charge Level capabilities of the Electric Storage Resource and the temperature dependence of that capacity;

ii. the maximum sent out capacity, net of Loads, that can be guaranteed to be available for supply to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 41 degrees Celsius;

Explanatory Note

The Peak Electric Storage Obligation Duration can now be different for each Electric Storage Resource.

iii. the sent-out capacity, net of Loads that can be guaranteed to be available for supply across the Peak Electric Storage Resource Obligation Duration, to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 41 degrees Celsius for each year of the expected life of the Electric Storage Resource, which must be supported by manufacturer data;

iv. manufacturer nameplate capacity and maximum Charge Level capability and minimum Charge Level capability data of the Electric Storage Resource for each year of its expected remaining life; and

v. the expected forced and unforced outage rate of the Electric Storage Resource taking into account the Peak Electric Storage Resource Obligation~~s~~ Duration based on manufacturer data;

(fB) [Blank]

(fC) [Blank]

(fD) in addition to any other requirements in this clause 4.10.1 for a Non-Scheduled Facility, for a Non-Scheduled Facility comprising only an Electric Storage Resource, including a Small Aggregation comprising aggregated Electric Storage Resources:

i. the location of the single Transmission Node Identifier behind which the aggregated Electric Storage Resources will be connected;

ii. the nameplate capacity and minimum and maximum Charge Level capabilities of each Electric Storage Resource and the temperature dependence of that capacity;

iii. the sent-out capacity, net of Parasitic Loads that can be guaranteed to be available for supply across the Peak Electric Storage Resource Obligation Duration, to the relevant Network from each Electric Storage Resource when it is operated normally at an ambient temperature of 41 degrees Celsius for each year of the expected life of the Electric Storage Resource, supported by manufacturer data; and

iv. evidence that demonstrates the Electric Storage Resources are expected to discharge during ~~the~~ their Peak Electric Storage Resource Obligation Intervals;

(fE) if the application relates to Flexible Certified Reserve Capacity:

i. the amount of Reserve Capacity the Market Partipant expects to make available from the Facility as Flexible Capacity

ii. the maximum ramp up rate of the Facility expressed in MW per minute;

iii. the maximum ramp down rate of the Facility expressed in MW per minute;

iii. the minimum ramp up rate of the Facility expressed in MW per minute;

iv. the minimum ramp down rate of the Facility expressed in MW per minute;

v. the minimum required running time of the Facility expressed in minutes;

vi. the minimum time (in minutes) required between receiving a Dispatch Instruction when in a cold state and operating at the minimum stable loading level;

vii. the minimum time (in minutes) required after receiving a Dispatch Instruction to ramp down from the minimum stable loading level to zero output;

viii. the minimum time (in minutes) before each Facility Technology Type in the Facility, excluding Loads, can be restarted after it is shut down;

ix. which, if any, FCESS the Facility expects to be capable of providing;

(g) for all Facilities:

i. any restrictions on the availability of the Facility due to staffing constraints; and

ii. any other restrictions on the availability of the Facility;

(h) whether the application relates to confirmation of Conditional Certified Reserve Capacity;

(i) [Blank];

(j) evidence of whether the Facility will be subject to an NCESS Contract;

(k) ~~where~~ if a Facility, or component of a Facility, is being assigned Certified Reserve Capacity or Conditional Certified Reserve Capacity using the Relevant Level Method ~~methodology described in clause 4.11.2(b)~~ and the Facility or relevant component of the Facility is already in full operation under the configuration for which certification is being sought (as specified for the Facility or component under clause 4.10.1(dA)), the date on which the Facility or component of the Facility became fully operational under this configuration, unless this date has already been provided to AEMO in a previous application for certification of Reserve Capacity;

(l) evidence of the extent to which the Facility will be able to receive, confirm and implement Dispatch Instructions from AEMO; and

(m) subject to clauses 4.10A.2 and 4.10A.3, a Market Participant that wishes to nominate that its Facility or an upgrade of its Facility, be classified as a Network Augmentation Funding Facility, must provide to AEMO:

i. a notice in writing from the Market Participant nominating that the Facility or an upgrade of the Facility, as applicable, be classified as a Network Augmentation Funding Facility; and

ii. the information specified in clause 4.10A.6.

Explanatory Note

New clause 4.10.1A requires AEMO to determine (through consultation) the minimum requirements for Flexible Capacity. These must be published alongside the ESOO.

This implements outcome 13 from information paper one.

4.10.1A AEMO must:

(a) determine in Year 1 of a Reserve Capacity Cycle the minimum eligibility requirements for receiving Flexible Certified Reserve Capacity, including:

i. the maximum allowed minimum stable loading level of the Facility expressed as a percentage of nameplate capacity

ii. the minimum allowed ramp up rate expressed in percent of nameplate capacity per minute;

iii. the minimum allowed ramp down rate expressed in percent of nameplate capacity per minute;

iv. the maximum allowed minimum running time expressed in minutes;

v. the maximum time (in minutes) allowed between receiving a Dispatch Instruction when in a cold state and operating at the minimum stable loading level;

vi. the maximum time (in minutes) allowed after receiving a Dispatch Instruction to ramp down from the minimum stable loading level to zero output; and

vii. the maximum allowed restart time expressed in minutes;

(b) determine the minimum eligibility requirements such that each Facility holding Flexible Certified Reserve Capacity:

i. must be a Fast Start Facility;

ii. will be capable of providing all of its capacity promptly and flexibly during the expected period of the highest Four-Hour Demand Increase;

(c) if AEMO proposes changes to the minimum eligibility requirements for receiving Flexible Certified Reserve Capacity last published under clause 4.10.1A(d), consult with Market Participants on the proposed changes before publishing them;

(d) publish the minimum eligibility requirements for receiving Flexible Certified Reserve Capacity on the WEM Website by the date specified in clause 4.1.8;

(e) document the following in a WEM Procedure:

i. the processes to be followed by AEMO for determining the minimum eligibility requirements for receiving Flexible Certified Reserve Capacity under clause 4.10.1A(a);

ii. the processes to be followed by AEMO to comply with its obligation to consult with Market Participants;

iii. the processes to be followed by AEMO for publishing the minimum eligibility requirements for receiving Flexible Certified Reserve Capacity.

Explanatory Note

Clause 4.10.2 is simplified to remove the distinction between different types of Non-Scheduled Facility.

4.10.2. The types of Facilities eligible to use the Relevant Level Method ~~methodology described in clause 4.11.2(b)~~, for the purpose of assigning Certified Reserve Capacity or Conditional Certified Reserve Capacity to the Facility are:

(a) components of Semi-Scheduled Facilities and Scheduled Facilities that are Intermittent Generating Systems;

(b) Non-Scheduled Facilities, except Non-Scheduled Facilities comprising only Electric Storage Resources that have not been in operation for the full period of performance assessment identified in step 1(a) of the Relevant Level Methodology; and

(c) Non-Scheduled Facilities comprising only Electric Storage Resources that have been in operation for the full period of performance assessment identified in step 1(a) of the Relevant Level Methodology.

4.10.3. An application for certification of Reserve Capacity for a Facility, or component of a Facility, that is to be assessed using the Relevant Level Method ~~methodology described in clause 4.11.2(b)~~ for a Facility, or relevant component of a Facility, that:

(a) is yet to enter service;

(b) is to re-enter service after significant maintenance;

(c) is to re-enter service after having been upgraded; or

(d) has not operated with the configuration specified for the Facility or component (as applicable) under clause 4.10.1(dA) for the full RLM Reference Period for the current Reserve Capacity Cycle ~~period of performance assessment identified in step 1(a) of the Relevant Level Methodology~~,

must include a report prepared by an expert accredited by AEMO in accordance with clause 4.11.6. AEMO will use the report to assign Peak Certified Reserve Capacity for the Facility, or the relevant component of the Facility, that is to be assessed using the Relevant Level Method ~~methodology described in clause 4.11.2(b)~~ and to determine the Required Level for that Facility.

4.10.3A. A report provided under clause 4.10.3 must include:

(a) for each Trading Interval during the RLM Reference Period for the current Reserve Capacity Cycle ~~period identified in step 1(a) of the Relevant Level Methodology~~, a reasonable estimate of the expected energy that would have been sent out by the Facility or the component of the Facility assessed using the Relevant Level Method ~~methodology described in clause 4.11.2(b)~~ had it been in operation. This estimate must include the effect of Planned Outages or Forced Outages on the sent out energy;

(b) a value, expressed in MW as a sent out value, which equals the 5 percent probability of exceedance of expected generation output for the Facility, or component of the Facility, for all the Trading Intervals that occurred within the last three years up to, and including, the last Hot Season, where this value is to be used in the calculation of the Required Level;

(c) a proposed alternative value to that specified in clause 4.10.3A(b), expressed in MW as a sent out value, to apply for the purposes of the Required Level, if in the opinion of the expert the value provided under clause 4.10.3A(b) would not be a reasonable representation of the Facility's, or component of the Facility's, 5 percent probability of exceedance of expected generation output during its first year of operation; and

(d) the reasons for any proposed alternative value provided under clause 4.10.3A(c).

4.10.4 If a Market Participant becomes aware of any changes to the details it provided to AEMO in accordance with this section 4.10 for a Facility yet to commence operation or a Facility that is undergoing significant maintenance, then the Market Participant must advise AEMO of the revised details for the Facility as soon as practicable.

Explanatory Note

New clauses 4.10.5 through 4.10.8 provide AEMO explicit powers to manage the quality of independent estimates, and recover the costs from either the specific participant or the market generally depending on the outcome of the review.

These powers implement outcome 12 from information paper one.

4.10.5. AEMO may seek independent review of the estimates in a report provided under clause 4.10.3.

4.10.6. AEMO may reject a report provided under clause 4.10.3 if the independent review conducted under clause 4.10.5 determines that the report overstates the expected generation output of the relevant Facility.

4.10.7. If AEMO rejects a report under clause 4.10.6, the Market Participant must reimburse AEMO for the cost of the independent review, otherwise AEMO must recover the cost of the independent report as part of its Allowable Revenue.

4.10.8. If AEMO rejects a report under clause 4.10.6, the relevant Market Participant must provide a revised report to AEMO as soon as practicable.

4.10A. Network Augmentation Funding Facility

4.10A.1. A reference to a Facility in this section 4.10A includes an upgrade of a Facility for which the Market Participant has nominated to be classified as a Network Augmentation Funding Facility under clause 4.10.1(m).

4.10A.2. For the purposes of clause 4.10.1(m), a Facility may only be nominated to be classified as a Network Augmentation Funding Facility in respect of a Reserve Capacity Cycle if:

(a) the Facility is an Energy Producing System;

(b) the Market Participant for the Facility has committed to funding Network Augmentation Works;

(c) the Network Augmentation Works are expected to be in-service (which includes having completed all required commissioning tests) by 1 October of Year 3 of the Reserve Capacity Cycle to which the application for certification of Reserve Capacity for the Facility relates; and

(d) the Expression of Interest for the Facility specified that the Facility was expected to be nominated to be classified as a Network Augmentation Funding Facility in accordance with clause 4.4.1(d)(vi).

4.10A.3. Subject to clause 4.10A.4, a Market Participant may only nominate a Facility to be classified as a Network Augmentation Funding Facility in the Reserve Capacity Cycle for which the Network Augmentation Works are expected to be in-service at the start of the Capacity Year for that Reserve Capacity Cycle.

4.10A.4. A Facility that is classified as a Network Augmentation Funding Facility in accordance with this section 4.10A, will be classified as a Network Augmentation Funding Facility for a single Reserve Capacity Cycle with respect to the relevant Network Augmentation Works, except ~~where~~ if the Facility was assigned Early Certified Reserve Capacity in accordance with section 4.28C, in which case the Facility will be treated in accordance with Appendix 3 in any earlier Reserve Capacity Cycle.

4.10A.5. A Facility or upgrade to a Facility will be classified as a Network Augmentation Funding Facility, in respect of the Reserve Capacity Cycle to which the application for Certified Reserve Capacity for the Facility submitted under clause 4.9.1 relates, ~~where~~ if:

(a) the Market Participant has nominated that the Facility be classified as a Network Augmentation Funding Facility in its application for certification of Reserve Capacity in respect of the Facility under clause 4.10.1(m);

(b) the Network Operator has verified the information specified in a request by AEMO under clause 4.10A.7 in accordance with clause 4.10A.8(a); and

(c) AEMO has assigned Certified Reserve Capacity to the Facility under clause 4.9.9.

4.10A.6. ~~Where~~ If a Market Participant has nominated that its Facility be classified as a Network Augmentation Funding Facility under clause 4.10.1(m), without limiting any other information the Market Participant may be required to provide to AEMO under clause 4.10.1, the Market Participant must provide the following information to AEMO by the date and time specified in clause 4.1.11:

(a) evidence that the Market Participant has committed to funding the Network Augmentation Works associated with the relevant Facility;

(b) evidence confirming that the Network Augmentation Works are expected to be in-service by 1 October of Year 3 of the Reserve Capacity Cycle to which the application for Certified Reserve Capacity relates; and

(c) any other information specified in the WEM Procedure referred to in clause 4.10A.11.

4.10A.7. Within 5 Business Days of receiving the information provided by a Market Participant in accordance with clause 4.10A.6, AEMO must request the relevant Network Operator to verify the information.

4.10A.8. Within ten Business Days of receiving a request from AEMO under clause 4.10A.7, the Network Operator must notify AEMO:

(a) that it verifies the information specified in the request; or

(b) that it does not agree with the information specified in the request and the reasons for its decision.

4.10A.9. ~~Where~~ If the conditions specified in clause 4.10A.5 are met, AEMO must:

(a) classify the Facility to which the information relates as a Network Augmentation Funding Facility; and

(b) notify the Market Participant that the Facility to which the information relates is classified as a Network Augmentation Funding Facility at the same time AEMO notifies the Market Participant of the Certified Reserve Capacity for the Facility under clause 4.1.12.

4.10A.10. ~~Where~~ If the Network Operator does not agree with the information specified in a request in accordance with clause 4.10A.8(b), AEMO must, within one Business Day of receiving the notification from the Network Operator:

(a) notify the Market Participant that the Facility to which the information relates will not be classified as a Network Augmentation Funding Facility; and

(b) provide the Market Participant with the reasons provided by the Network Operator.

4.10A.11. AEMO must document in a WEM Procedure the information required to be provided by a Market Participant under clause 4.10A.6 in support of its nomination that a Facility be classified as a Network Augmentation Funding Facility.

4.10A.12. AEMO must publish the information provided to it under clause 4.10A.6 with respect to a Market Participant nominating that a Facility be classified as a Network Augmentation Funding Facility, excluding any Confidential Information.

4.11. Setting Certified Reserve Capacity

Explanatory Note

Information paper one set out decisions on CRC assessment for the three Capability Classes (outcomes 9 and 10). These clauses implement those decisions, as well as:

- outcome 13 from information paper one (Flexible Capacity certification);
- outcome 3 from information paper two (aggregated DSP nomination of CRC quantity).

4.11.1. Subject to clause 4.11.12, AEMO must apply the following principles in assigning a quantity of Certified Reserve Capacity to a Facility or relevant component of a Facility for the Reserve Capacity Cycle for which an application for Certified Reserve Capacity has been submitted in accordance with section 4.10:

(a) the Peak Certified Reserve Capacity in Capability Class 1 for a Non-Intermittent Generating System for a Reserve Capacity Cycle must not exceed AEMO's reasonable expectation of the amount of capacity likely to be

available, after netting off capacity required to serve Loads, during Capability Class 1 Availability Assessment Intervals ~~for Peak Trading Intervals~~ on Business Days from the start of the Trading Day starting on 1 October of Year 3 of the Reserve Capacity Cycle to the end of the Trading Day starting on 31 July of Year 4 of the Reserve Capacity Cycle, assuming an ambient temperature of 41 degrees Celsius;

(aA) the Peak Certified Reserve Capacity in Capability Class 2 for a Non-Intermittent Generating System for a Reserve Capacity Cycle must be set in accordance with clause 4.11.2B;

(b) the Peak Certified Reserve Capacity for a Non-Intermittent Generating System must not exceed the capacity specified in clause 4.10.1(e)(ii);

(bA) ~~where~~ if the Facility contains an Energy Producing System, the Peak Certified Reserve Capacity must not exceed the Declared Sent Out Capacity for the Facility notified to AEMO under clause 4.10.1(bA)(iii);

(bB) ~~where~~ if two or more Facilities share a Declared Sent Out Capacity, the total quantity of Peak Certified Reserve Capacity assigned to those Facilities must not exceed the Declared Sent Out Capacity;

(bC) for a Scheduled Facility containing an Electric Storage Resource or Semi-Scheduled Facility containing an Electric Storage Resource, the total quantity of Peak Certified Reserve Capacity determined for the Electric Storage Resource must be determined by AEMO in accordance with clause 4.11.3;

(bD) for a Non-Scheduled Facility comprising only an Electric Storage Resource, including Small Aggregation of aggregated Electric Storage Resources, the total quantity of Peak Certified Reserve Capacity must be:

i. determined in accordance with the Relevant Level Method~~ology determined in accordance with clause 4.11.2~~; or

ii. if the Electric Storage Resource has not been in operation for the full RLM Reference Period for the current Reserve Capacity Cycle ~~period of performance assessment identified in step 1(a) of the Relevant Level Methodology~~, determined in accordance with clause 4.11.3;

(bE) for a Non-Scheduled Facility, excluding Non-Scheduled Facilities under clause 4.11.1(bD)(ii), the total quantity of Peak Certified Reserve Capacity assigned to the Facility must be determined in accordance with the Relevant Level Method~~ology~~, determined in accordance with clause 4.11.2;

(bF) The Flexible Certified Reserve Capacity for a Facility or Separately Certified Component for a Reserve Capacity Cycle must not exceed:

i. the Peak Certified Reserve Capacity for that Facility or Separately Certified Component for that Reserve Capacity Cycle;

ii. the maximum output in MW that the Facility or Separately Certified Component could reach four hours after receiving a Dispatch Instruction in a cold state;

(bG) AEMO must not assign Flexible Certified Reserve Capacity to a Facility or Separately Certified Component if the parameters submitted under clause 4.10.1(fE) do not meet the minimum requirements determined in accordance with clause 4.10.1A;

(bH) AEMO must not assign Flexible Certified Reserve Capacity to a Non-Scheduled Facility or a component of a Non-Scheduled Facility;

(c) AEMO must not assign Certified Reserve Capacity to a Facility for a Reserve Capacity Cycle if:

i. [Blank]

ii. the Facility is not operational or is not scheduled to commence operation for the first time so as to meet its Reserve Capacity Obligations by 1 October of Year 3 of the Reserve Capacity Cycle;

iii. the Facility will cease operation permanently, and hence cease to meet Reserve Capacity Obligations, from a time earlier than 1 August of Year 4 of the Reserve Capacity Cycle;

iv. the Facility already has Capacity Credits assigned to it under clause 4.28C for the Reserve Capacity Cycle; or

v. ~~[Blank]~~during any of the previous three Capacity Years, a Market Participant held Capacity Credits for that Facility, and did not comply with clause 7.10.6A in respect of the Facility;

vi. the Facility is a Demand Side Programme and it has submitted under clause 4.10.1(f)(v) a minimum notice period for dispatch under clause 7.6.15 of more than two hours.

(d) [Blank]

(e) [Blank]

(f) AEMO must not assign Certified Reserve Capacity to a Facility that is not expected to be a Registered Facility by the time its Reserve Capacity Obligations for the Reserve Capacity Cycle would take effect;

(g) [Blank]

Explanatory Note

All years in the outage table are now in the past. This clause is moved to 4.11.1A, and amended to focus on Forced Outage rates only, with clearer guidance for AEMO on when to reduce the assigned CRC.

(h) [Blank]~~subject to clauses 4.11.1B and 4.11.1C, AEMO may decide not to assign any Certified Reserve Capacity to a Facility, or to assign a lesser~~

~~quantity of Certified Reserve Capacity to a Facility than it would otherwise assign in accordance with this clause 4.11.1, if:~~

~~i. the Facility has been in Commercial Operation for at least 36 months and has had a Forced Outage rate or a combined Planned Outage rate and Forced Outage rate greater than the applicable percentage specified in the table in clause 4.11.1D, over the preceding 36 months; or~~

~~ii. the Facility has been in Commercial Operation for less than 36 months, or is yet to commence Commercial Operation, and AEMO has cause to believe that over the first 36 months of Commercial Operation the Facility is likely to have a Forced Outage rate or a combined Planned Outage rate and Forced Outage rate greater than the applicable percentage specified in the table in clause 4.11.1D,~~

~~where the Planned Outage rate and the Forced Outage rate for a Facility for a period are calculated in accordance with the WEM Procedure specified in clause 4.9.10;~~

(i) the Certified Reserve Capacity assigned to a Facility is to be expressed to a precision of 0.001 MW;

(j) the Peak Certified Reserve Capacity for a Demand Side Programme for a Reserve Capacity Cycle must only consist of Associated Loads at the same Transmission Node, and must not exceed: ~~AEMO's reasonable expectation of the amount of capacity likely to be available from the Facility during the periods specified in clause 4.10.1(f)(vi), after netting off capacity required to serve Minimum Consumption for each of the Facility's Associated Loads, from the start of the Trading Day starting on 1 October of Year 3 of the Reserve Capacity Cycle to the end of the Trading Day starting on 31 July of Year 4 of the Reserve Capacity Cycle; and~~

i. if the Demand Side Programme has a single Associated Load, the most recently calculated Peak Individual Reserve Capacity Requirement Contribution of the Associated Load;

ii. if the Demand Side Programme has more than one Associated Load, the quantity nominated for the Demand Side Programme under clause 4.10.1(f)(iA);

(jA) the Flexible Certified Reserve Capacity for a Demand Side Programme for a Reserve Capacity Cycle must only consist of Associated Loads at the same Transmission Node, and must not exceed:

i. if the Demand Side Programme has a single Associated Load, the most recently calculated Peak Individual Reserve Capacity Requirement Contribution of the Associated Load;

ii. if the Demand Side Programme has more than one Associated Load, the quantity nominated for the Demand Side Programme under clause 4.10.1(f)(iC); and

(k) the Certified Reserve Capacity assigned to a Facility is to be, ~~where~~ if relevant, the sum of the Certified Reserve Capacity assigned to each relevant component of a Facility.

Explanatory Note

This clause has been moved from 4.11.1(h), and simplified to remove the outage rate table, as all earlier years are now in the past.

The amended drafting increases the onus on AEMO to reduce Capacity Credits allocated to Facilities with excessive Forced Outage rates. AEMO must reduce the CRC for facilities with forced outage rates above 10%, unless it is convinced that the participant has fixed the underlying issue.

This implements outcome 14 from information paper one.

4.11.1A. Subject to clauses 4.11.1B and 4.11.1C, if a Facility has been in Commercial Operation for at least 36 months and has had a Forced Outage rate greater than the Forced Outage Threshold over the preceding three Hot Seasons, then unless AEMO reasonably considers that the underlying causes of the high outage rate have been resolved, AEMO must assign a quantity of Peak Certified Reserve Capacity no greater than:

(a) the quantity of Peak Certified Reserve Capacity that AEMO would otherwise have assigned to the Facility under this clause 4.11.1; multiplied by

(b) 1 minus the Hot Season Forced Outage rate of the Facility,

where the Forced Outage rate for a Facility for a period is calculated in accordance with the WEM Procedure specified in clause 4.9.10, and AEMO must publish the reasons for its ~~a~~ decision ~~made under clause 4.11.1(h)~~ on the WEM Website to the extent those reasons do not contain any confidential information.

4.11.1B. In making a decision under clause 4.11.1A ~~4.11.1(h) or 4.11.1(j)~~, and without limiting the ways in which AEMO may inform itself ~~in either case~~, AEMO may:

(a) seek such additional information from the Market Participant that AEMO considers is relevant to the exercise of its discretion;

(b) use information provided in reports related to the Facility submitted by:

i. the Market Participant specified under clause 4.27.3; and

ii. any other person under clause 4.27.6; and

(c) consult with any person AEMO considers suitably qualified to provide an opinion or information on issues relevant to the exercise of AEMO's discretion.

4.11.1C. In making a decision under clause 4.11.1A ~~4.11.1(h)~~, AEMO:

(a) must be satisfied that its decision under clause 4.11.1A ~~4.11.1(h)~~ would not, on balance, be contrary to the Wholesale Market Objectives;

(b) may assess the effectiveness of strategies undertaken by the applicant in the previous three years to reduce outages, and consider the likelihood that strategies proposed by the applicant to maximise the availability of the Facility in the relevant Reserve Capacity Cycle will be effective.~~:~~

~~i. consider the extent to which the Reserve Capacity that can be provided by the Facility is necessary to meet the Reserve Capacity Target;~~

~~ii. consider whether the Reserve Capacity provided by the Facility is of material importance to the SWIS, having regard to:~~

~~1. the size of the Facility;~~

~~2. the operational characteristics of the Facility;~~

~~3. the extent to which the Facility contributes to the Power System Security or Power System Reliability through fuel diversity or location; and~~

~~4. the demonstrated reliability of the Facility;~~

iii. assess the effectiveness of strategies undertaken by the applicant in the previous three years to reduce outages, and consider the likelihood that strategies proposed by the applicant to maximise the availability of the Facility in the relevant Reserve Capacity Cycle will be effective.;

~~iv. consider whether a decision to not assign Certified Reserve Capacity to the Facility is likely to result in a material decrease in competition in at least one market;~~

~~v. consider any positive or negative impacts on the long term price of electricity supplied to consumers that might arise if Certified Reserve Capacity was not assigned to the Facility; and~~

~~vi. consider any other matter AEMO determines to be relevant.~~

~~4.11.1D. The relevant outage criteria to apply under clause 4.11.1(h) in a particular Capacity Year is set out in the following table:~~

~~OUTAGE RATE LIMIT TABLE~~

~~For AEMO decisions related to the Capacity Cycle~~	~~Forced Outage rate greater than~~	~~Combined Planned Outage rate and Forced Outage rate greater than~~
~~Prior to 2015~~	~~15%~~	~~30%~~
~~2015~~	~~14%~~	~~28%~~
~~2016~~	~~13%~~	~~26%~~
~~2017~~	~~12%~~	~~24%~~

~~For AEMO decisions related to the Capacity Cycle~~	~~Forced Outage rate greater than~~	~~Combined Planned Outage rate and Forced Outage rate greater than~~
~~2018~~	~~11%~~	~~22%~~
~~2019 onwards~~	~~10%~~	~~20%~~

4.11.2. ~~Where~~ If an applicant submits an application for Peak Certified Reserve Capacity, in accordance with clause 4.10, and AEMO is required to use the Relevant Level Method ~~methodology described in clause 4.11.2(b)~~ to apply to an Intermittent Generating System or a Non-Scheduled Facility (excluding ~~where~~ if clause 4.11.1(bD)(ii) applies), AEMO:

(a) [Blank];

(aA) [Blank]; and

(b) subject to clause 4.11.12, must assign a quantity of Peak Certified Reserve Capacity to the relevant Facility or relevant component of a Facility for the Reserve Capacity Cycle equal to the Relevant Level as determined in accordance with the Relevant Level Method~~ology~~, but subject to clauses 4.11.1(bA), 4.11.1(bB), 4.11.1(c), 4.11.1(f) and 4.11.1(h).

4.11.2A. ~~Where~~ If an applicant nominates under clause 4.10.3A(c) to have AEMO use an alternative value to that specified in clause 4.10.3A(b) AEMO:

(a) may reject the proposed alternative value if it does not consider the reasons provided in accordance with clause 4.10.3A(d) provide sufficient evidence that an alternative value is required; and

(b) must use the alternative value in the calculation of the Required Level if it does not reject the proposed alternative value under clause 4.11.2A(a).

4.11.2B The quantity of Peak Certified Reserve Capacity in Capability Class 2 to be assigned to a Non-Intermittent Generating System for a Reserve Capacity Cycle must not exceed:

(a) AEMO's reasonable expectation of the maximum quantity of capacity likely to be available, net of embedded and Parasitic Loads, during the Default Peak Electric Storage Resource Obligation Intervals on each Business Day from the start of the Trading Day starting on 1 October of Year 3 of the Reserve Capacity Cycle to the end of the Trading Day starting on 31 July of Year 4 of the Reserve Capacity Cycle, assuming an ambient temperature of 41 degrees Celsius; multiplied by

(b) the lesser of the Capability Class 1 Availability Assessment Duration and AEMO's reasonable expectation, based on the restrictions specified under clauses 4.10.1(e)(v)(2), 4.10.1(f)(ii), 4.10.1(f)(iii), 4.10.1(fA)(i), or 4.10.1(g), of

the number of complete Trading Intervals that the quantity of capacity in clause 4.11.2B(a) could be continuously delivered for; divided by

(c) the Capability Class 1 Availability Assessment Duration.

Explanatory Note

The Peak Electric Storage Resource Obligation Duration can now be different for each Electric Storage Resource.

4.11.3. The quantity of Certified Reserve Capacity to be assigned to ~~for~~ an Electric Storage Resource for the Reserve Capacity Cycle under clause 4.11.1, ~~for a component of a Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility,~~ except ~~where~~ if clause 4.11.1(bD)(i) applies, ~~the quantity of Certified Reserve Capacity to be assigned~~ is AEMO's reasonable expectation of the Linearly Derating Capacity that each Electric Storage Resource can sustain over the Peak Electric Storage Resource Obligation Duration after netting off capacity required to serve Loads associated with the Electric Storage Resource, from 1 October of Year 3 of the Reserve Capacity Cycle, assuming an ambient temperature of 41 degrees Celsius, based on the information provided in the application for Certified Reserve Capacity and the observed performance of the Electric Storage Resource in accordance with clause 4.25.1.

4.11.3A. AEMO must:

Explanatory Note

Electric Storage Resources receive Certified Reserve Capacity on a fixed availability duration for the first five Capacity Years after commissioning. As a result, each ESR may have a different number of obligation intervals. This clause is amended so that AEMO publishes the first interval, the "First Peak Electric Storage Resource Obligation Interval" (FPESROI), and all ESR obligations will start at that time. The number of Peak Electric Storage Obligation Intervals for an ESR is either the ESR Obligation Duration that applied when it was first commissioned, or that which applies for the current Capacity Year. When first commissioned, the Peak Electric Storage Resource Obligation Intervals for an Electric Storage Resource will match the Default Peak Electric Storage Obligation Intervals.

AEMO has the power to unilaterally change the FPESROI on a day to day basis under clause 6.3.1. The existing clause 4.11.3A means that any changes to the PESROI will not be finalised until after the closure of the Certified Reserve Capacity application window. This consultation requirement is removed to ensure the FPESROI is determined in time for the ESOO, which ensures that AEMO can determine the ESR Availability Duration under clause 4.5.12 using the *current* Capacity Year's FPESROI.

Clause 4.11.3A(b) was superfluous, and is replaced by the power for AEMO to amend the FPESROI in years two and three if needed. This is preferable to the alternative, issuing a daily update under clause 6.3.1.

(a) determine in Year 1 of a Reserve Capacity Cycle the Trading Interval~~s~~ in each Trading Day that is ~~are~~ classified as the First Peak Electric Storage Resource Obligation Interval~~s~~ from 1 October of Year 3 of the Reserve Capacity Cycle, and publish the First Peak Electric Storage Resource Obligation Intervals on

the WEM Website (which may be published in the Statement of Opportunities Report) by the date specified in clause 4.1.8; ~~and:~~

~~i. where changes are proposed to the Electric Storage Resource Obligation Intervals last published under this clause 4.11.3A(a), consult with Market Participants on the proposed changes, and publish the Electric Storage Resource Obligation Intervals on the WEM Website by 31 July of Year 1 of the Reserve Capacity Cycle; and~~

~~ii. where no changes are proposed to the Electric Storage Resource Obligation Intervals last published under this clause 4.11.3A(a), publish the Electric Storage Resource Obligation Intervals on the WEM Website (which may be published in the Statement of Opportunities Report) by the date specified in clause 4.1.8;~~

Explanatory Note

FESROI are to be determined based on the actual intervals of highest ramp, are the same for all Facilities, and cannot be amended in the same way as FPESROI. They only occur outside the Hot Season.

(aA) determine in Year 1 of a Reserve Capacity Cycle the Trading Intervals in each Trading Day that are classified as Flexible Electric Storage Resource Obligation Intervals from 1 October of Year 3 of the Reserve Capacity Cycle, where the Flexible Electric Storage Resource Obligation Intervals are the Trading Intervals in each Trading Day outside the Hot Season in which the highest Four-Hour Demand Increase is expected to occur in the scenario used to forecast the Flexible Reserve Capacity Target under clause 4.5.10(bA);

(aB) publish the Flexible Electric Storage Resource Obligation Intervals determined under clause 4.11.3A(aA) on the WEM Website (which may be published in the Statement of Opportunities Report) by the date specified in clause 4.1.8;

Explanatory Note

The current rules use a concept of Peak Trading Intervals (running from 8am to 10pm) to set the requirement for generator availability. Including the midday trough in the “Peak” period is no longer appropriate, so AEMO is required to identify a different set of Trading Intervals to be used for classifying facilities into Capabiltiy Class 1.

(aC) determine in Year 1 of a Reserve Capacity Cycle the Trading Intervals in each Trading Day that are classified as Capability Class 1 Availability Assessment Intervals from 1 October of Year 3 of the Reserve Capacity Cycle, and the Capability Class 1 Availability Assessment Intervals must include:

i. the Default Peak Electric Storage Resource Obligation Intervals;

ii. the Flexible Electric Storage Resource Obligation Intervals;

iii. additional Trading Intervals so that the number of Capability Class 1 Availability Assessment Intervals equals the Capability Class 1 Availability Assessment Duration. The additional Trading Intervals

must be selected to reflect the intervals with the highest capacity requirement in the Availability Curve for that Capacity Year;

(aD) if AEMO proposes changes to the Capability Class 1 Availability Assessment Intervals last published under clause 4.11.3A(aE), consult with Market Participants on the proposed changes;

(aE) publish the Capability Class 1 Availability Assessment Intervals determined under clause 4.11.3A(aC) on the WEM Website (which may be published in the Statement of Opportunities Report) by the date specified in clause 4.1.8;

(b) in Years 2 and 3 of a Reserve Capacity Cycle, determine whether the Trading Intervals classified as First Peak Electric Storage Resource Obligation Intervals remain appropriate, and if not, publish revised First Peak Electric Storage Resource Obligation Intervals on the WEM Website by the date specified in clause 4.1.8 for the relevant Reserve Capacity Cycle;~~only amend the Trading Intervals classified as Electric Storage Resource Obligation Intervals and published in accordance with clause 4.11.3A(a) as permitted under these WEM Rules;~~ and

(c) document the following in a WEM Procedure:

i. the processes to be followed by AEMO for determining changes to the Trading Intervals that will be classified as First Peak Electric Storage Resource Obligation Intervals, Flexible Electric Storage Resource Obligation Intervals, and Capability Class 1 Availability Assessment Intervals under clauses 4.11.3A(a), 4.11.3A(aA), 4.11.3A(aB), and 4.11.3A(b), including the processes to be followed by AEMO to comply with its obligations to consult with Market Participants;

ii. the processes to be followed by AEMO for publishing the Trading Intervals classified as First Peak Electric Storage Resource Obligation Intervals, Flexible Electric Storage Resource Obligation Intervals and Capability Class 1 Availability Assessment Intervals in accordance with clauses 4.11.3A(a), 4.11.3A(aB), 4.11.3A(aE), and 4.11.3A(b) on the WEM Website; and

iii. the circumstances, if any, that allow AEMO to determine, in accordance with clause 6.3.1 and without consultation with Market Participants, that the Trading Interval~~s~~ classified as the First Peak Electric Storage Resource Obligation Interval~~s~~ for a specific Trading Day is ~~are~~ not the First Peak Electric Storage Resource Obligation Interval~~s~~ published by AEMO under clause 4.11.3A(a) or 4.11.3A(b).

4.11.3B. The Required Level for a Scheduled Facility or Semi-Scheduled Facility is the sum of the Required Levels for each Separately Certified Component determined under clause 4.11.3BA, unless that sum exceeds the Facility's Declared Sent Out Capacity then the Required Level will be the Declared Sent Out Capacity of the Facility.

4.11.3BA. The Required Level for a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility is:

(a) for a Non-Intermittent Generating System assigned Certified Reserve Capacity under clause 4.11.1(a) or clause 4.11.1(aA), calculated by AEMO using the Capacity Credits associated with the Non-Intermittent Generating System and temperature dependence information submitted to AEMO under clause 4.10.1(e)(i) or provided in Standing Data (~~where~~ if available) and converted to a sent out basis to 41 degrees Celsius;

(b) for an Intermittent Generating System assigned Certified Reserve Capacity under clause 4.11.2(b), either:

i. the value, expressed in MW as a sent out value, that equals the five percent probability of exceedance of expected generation output for the component of the Facility that is an Intermittent Generating System, submitted to AEMO in the report described in clause 4.10.3A(b);or

ii. the proposed alternative value for the component of the Facility that is an Intermittent Generating System, expressed in MW as a sent out value, provided in the report described in clause 4.10.3A(c), ~~where~~ if AEMO has accepted the proposed alternative value under clause 4.11.2A,

and adjusted for Capacity Credits associated with the Intermittent Generating System;

(c) for an Electric Storage Resource assigned Certified Reserve Capacity under clause 4.11.3 calculated by AEMO using the Capacity Credits associated with the Electric Storage Resource and temperature dependence information submitted to AEMO under clause 4.10.1(fA) or provided in Standing Data (~~where~~ if available) and converted to a sent out basis to 41 degrees Celsius.

4.11.3BB. The Required Level for a Demand Side Programme is calculated by AEMO using the Relevant Demand for the Facility minus the Peak Capacity Credits assigned to the Facility.

4.11.3BC. Except ~~where~~ if clause 4.11.3BD applies to the Facility, the Required Level for a Non-Scheduled Facility assigned Certified Reserve Capacity under clause 4.11.2(b) is either:

(a) the value, expressed in MW as a sent out value, that equals the five percent probability of exceedance of expected generation output for the Facility, specified in the report described in clause 4.10.3A(b);or

(b) the proposed alternative value for the Facility, expressed in MW as a sent out value, specified in the report described in clause 4.10.3A(c), where AEMO must use the proposed alternative value in accordance with clause 4.11.2A,

and adjusted for Peak Capacity Credits assigned to the Facility.

4.11.3BD. The Required Level for a Non-Scheduled Facility, assigned Certified Reserve Capacity under 4.11.1(bD), is calculated by AEMO using the Peak Capacity Credits assigned to the Facility and temperature dependence information submitted to AEMO under clauses 4.10.1(fD) or provided in Standing Data (~~where~~ if available) and converted to a sent out basis to 41 degrees Celsius.

4.11.3C. For each five year period, beginning with the period commencing on 1 January 2028 ~~2025~~, the Economic Regulation Authority must, by 1 April of the first year of that period, conduct a review of the Relevant Level Method~~ology~~. In conducting the review, the Economic Regulation Authority must~~:~~

~~(a) examine the effectiveness of the Relevant Level Methodology in meeting the Wholesale Market Objectives; and~~

~~(b) determine the values of the parameters K and U in step 17 of the Relevant Level Methodology to be applied for each of the three Reserve Capacity Cycles commencing in the period,~~

~~and the Economic Regulation Authority~~ may examine any other matters that the Economic Regulation Authority considers to be relevant.

4.11.3D. In conducting a review under clause 4.11.3C, the Economic Regulation Authority must publish a draft report and invite submissions from Rule Participants and any other stakeholders the Economic Regulation Authority considers should be consulted.

4.11.3E. At the conclusion of a review under clause 4.11.3C, the Economic Regulation Authority must publish a final report containing:

(a) details of the Economic Regulation Authority's review of the Relevant Level Method~~ology~~;

(b) a summary of the submissions received during the consultation period;

(c) the Economic Regulation Authority's response to any issues raised in those submissions; and

~~(d) the values of the parameters K and U determined under clause 4.11.3C; and~~

~~(e) any recommended amendments to the Relevant Level Methodology~~ which the Economic Regulation Authority intends to progress as a Rule Change Proposal.

Explanatory Note

With the expected decrease in traditional generation, it is no longer tenable to set a minimum requirement for Availability Class 1. The two Availability Classes are replaced by three Capability Classes:

- Capability Class 1 is firm capacity with no energy limitations
- Capability Class 2 is firm capacity with energy limitations
- Capability Class 3 is non-firm capacity, or capacity with such severe availability limitations such that it can generate in fewer hours than the PESROI, regardless of

fuel availability.

A Demand Side Programme could only qualify as Capability Class 1 if it is available in all hours (not restricted to daytime) and can be dispatched for as many intervals as needed (not restricted to a limited number of dispatched hours). Otherwise it will be Capability Class 2.

This implements outcome 8 from information paper one.

4.11.4. Subject to clause 4.11.12, when assigning Peak Certified Reserve Capacity, AEMO must assign ~~an Availability~~ a Capability Class to apply to that Facility or Separately Certified Component ~~Certified Reserve Capacity~~ as follows:

(a) ~~Availability~~ Capability Class 1 if ~~where either~~:

i. the Peak Certified Reserve Capacity is associated with a Facility which is registered as, or is expected to be registered as, either a Scheduled Facility or a Demand Side Programme; and ~~the Facility contains an Intermittent Generating System or Non-Intermittent Generating System; or~~

ii. AEMO reasonably expects the Facility to be available to be dispatched for all Trading Intervals in a Capacity Year, allowing for Outages ~~and any restrictions on the availability specified by the applicant under clause 4.10.1(g)~~; or

(b) ~~Availability Class 2 otherwise.~~Capability Class 2 if:

i. the Peak Certified Reserve Capacity is associated with a Facility which is registered as, or is expected to be registered as, either a Scheduled Facility or a Demand Side Programme; and

ii. the applicant has specified restrictions under clauses 4.10.1(e)(v)(2), 4.10.1(f)(ii), 4.10.1(f)(iii), 4.10.1(fA)(i), or 4.10.1(g) such that AEMO does not expect the Facility to be available to be dispatched for all Trading Intervals in a Capacity Year, allowing for Outages; or

(c) Capability Class 3 if the Peak Certified Reserve Capacity:

i. is not expected to be available during all Default Peak Electric Storage Resource Obligation Intervals on each Business Day; or

ii. is associated with a Facility which is registered as, or is expected to be registered as, a Semi-Scheduled Facility or a Non-Scheduled Facility.

4.11.5. In assigning Certified Reserve Capacity to a Facility, AEMO may:

(a) require Network Operators to confirm that the data and information related to clause 4.10.1(bA) provided to AEMO by or on behalf of an applicant for Certified Reserve Capacity is complete, accurate and up to date; and

(b) request that a Network Operator provide AEMO within a reasonable timeframe with any other information held by the Network Operator that the Network Operator reasonably considers is relevant to the application,

and Network Operators must use their best endeavours to cooperate with such requests and provide the information requested within the timeframe specified by AEMO in the request.

4.11.6. AEMO must accredit not less than two independent experts at any time to prepare reports on the estimated Reserve Capacity of an Intermittent Generating System or a Non-Scheduled Facility (excluding ~~where~~ if clause 4.11.1(bD)(ii) applies) that are yet to commence operation, at the expense of the applicant. AEMO:

(a) must publish the contact details of these accredited independent experts on the WEM Website;

(b) must ensure that any expert it accredits is familiar with the meaning of the value to be estimated; and

(c) may ~~can~~ remove accreditation of an expert at any time, but must allow the expert to complete any work in progress as an accredited expert at the time accreditation is removed.

Explanatory Note

New clauses 4.11.7/8/9 provide for AEMO to compare expert estimates of facility generation with actual generation.

4.11.7. ~~[Blank]~~When a Market Participant provides a report under clause 4.10.3, AEMO must conduct a review to compare:

(a) the estimates of expected sent out energy in historical Trading Intervals; and

(b) the actual energy sent out by the Facility or the component of the Facility,

and if relevant, AEMO must compare performance under similar operating conditions, including temperature, insolation, and wind speed.

4.11.8. ~~[Blank]~~AEMO must conduct at least two reviews under clause 4.11.7 for each report provided under clause 4.10.3, including:

(a) one review one year after AEMO determines that the Facility is in Commercial Operation; and

(b) one review four years after AEMO determines that the Facility is in Commercial Operation.

4.11.9. ~~[Blank]Where~~ If a review under clause 4.11.7 determines that, based on the performance of the relevant Facility since it has been in Commercial Operation, the estimates in the report provided under clause 4.10.3 were unreasonably high, AEMO may remove accreditation of the relevant expert under clause 4.11.6(c).

4.11.10. Upon the receipt of advice provided in accordance with clause 4.10.4 for a Facility that has already been assigned Capacity Credits for the relevant Capacity Year, AEMO must review the information provided and decide whether it is necessary for AEMO to reassess the assignment of Certified Reserve Capacity to the Facility.

4.11.10A. ~~Where~~ If AEMO decides under clause 4.11.10 that it is necessary for AEMO to reassess the assignment of Certified Reserve Capacity to a Facility because the level assigned may have been too high, AEMO must:

(a) if information provided to AEMO under clause 4.10.4 would have resulted in AEMO assigning a lower, non-zero level of Certified Reserve Capacity to the Facility:

i. reduce the Capacity Credits assigned to that Facility accordingly; and

ii. advise the Market Participant within 90 days of receiving the submission under clause 4.10.4; or

(b) otherwise, do nothing.

4.11.11. ~~Where~~ If AEMO reassesses the amount of Certified Reserve Capacity assigned to a Facility under clauses 4.11.10 and 4.11.10A based on information provided to AEMO under clause 4.10.4 the Market Participant will pay a Reassessment Fee to cover the cost of processing the reassessment.

4.11.12. AEMO must not assign Certified Reserve Capacity to a Scheduled Facility, Semi-Scheduled Facility or Demand Side Programme unless AEMO is satisfied the Facility is likely to be able to receive, confirm, and implement Dispatch Instructions from AEMO in accordance with the WEM Procedures referred to in clauses 2.35.4 and 7.6.18.

4.12. Setting Reserve Capacity Obligations

4.12.1. The Reserve Capacity Obligations for each Market Participant holding Capacity Credits are as follows:

(a) a Market Participant must ensure that for each Trading Interval, the MW quantity of capacity provided through the Bilateral Submission and STEM Submission processes, as determined for the Market Participant under clause 4.26.2AE, is greater than or equal to the MW quantity determined for the Market Participant under clause 4.26.2AB; and

(b) a Market Participant must make the capacity associated with the Capacity Credits which are assigned to its Registered Facility for each Dispatch Interval available for dispatch by AEMO in accordance with Chapter 7, up to the Peak Reserve Capacity Obligation Quantity for the Registered Facility for the relevant Dispatch Interval.

4.12.2. A Market Participant holding Capacity Credits must also comply with the following obligations:

(a) the Market Participant must comply with the Outage planning obligations specified in sections 3.18 to 3.21;

(b) the Market Participant must submit to tests of availability of capacity conducted in accordance with section 4.25; ~~and~~

(c) the Market Participant must comply with Reserve Capacity performance monitoring obligations in accordance with section 4.27; and

(d) the Market Participant must apply for FCESS accreditation under clause 2.34A.2 for any Facility and Capacity Year for which it holds Flexible Capacity Credits, for any FCESS it is capable of providing.

4.12.3. If a Facility assigned Capacity Credits is not a Registered Facility for any time period during which Reserve Capacity Obligations apply for the Facility, then the Market Participant which holds the Capacity Credits assigned to the Facility will be deemed to have failed to satisfy the Reserve Capacity Obligations for the Facility during that time period.[2]

4.12.4. AEMO must determine the Peak Reserve Capacity Obligation Quantity for each Scheduled Facility, Semi-Scheduled Facility, Non-Scheduled Facility or Demand Side Programme for each Dispatch Interval as follows:

(a) the Peak Reserve Capacity Obligation Quantity for a Registered Facility is equal to zero for each Dispatch Interval in which no Peak Capacity Credits are assigned to the Registered Facility;

(b) the Peak Reserve Capacity Obligation Quantity for a Non-Scheduled Facility is equal to zero for each Dispatch Interval;

(c) the Peak Reserve Capacity Obligation Quantity for a Demand Side Programme:

i. for a Dispatch Interval that falls within a period specified for the Demand Side Programme under clause 4.10.1(f)(vi), is equal to the number of Capacity Credits assigned to the Demand Side Programme for the Dispatch Interval, except ~~where~~ if clauses 4.12.4(c)(iii) or 4.12.4(c)(iv) apply;

ii. for a Dispatch Interval that falls outside the periods specified for the Demand Side Programme under clause 4.10.1(f)(vi), is equal to zero;

iii. will equal zero for the remainder of a Capacity Year once the capacity of the Demand Side Programme has been dispatched under clause 7.6.5A for the number of Trading Intervals ~~hours~~ per Capacity Year that is specified for the Demand Side Programme under clause 4.10.1(f)(ii); and

iv. will equal zero for the remainder of a Trading Day once the capacity of the Demand Side Programme has been dispatched under clause 7.6.5A for the number of Trading Intervals ~~hours~~ per Trading Day that is specified for the Demand Side Programme under clause 4.10.1(f)(iii); and

~~[2] See clause 4.26.1 in relation to the refund payable where a Market Participant holding Capacity Credits associated with a Facility fails to comply with the Reserve Capacity Obligations for the Facility.~~

(d) the Peak Reserve Capacity Obligation Quantity for a Scheduled Facility or Semi-Scheduled Facility which is assigned Peak Capacity Credits for a Dispatch Interval is equal to the sum of the Peak Reserve Capacity Obligation Quantities determined under clause 4.12.5 for each Separately Certified Component of the Registered Facility for the relevant Dispatch Interval.

Explanatory Note

Peak RCOQ is calculated based on the Peak Capacity Credits, which can only ever be greater than or equal to the number of Flexible Capacity Credits.

Separate RCOQs are calculated for Peak Capacity and Flexible Capacity. This means that it is possible for a Facility to miss its Peak Capacity obligations while still meeting its Flexible Capacity obligations.

Electric Storage Resources which hold Flexible Capacity Credits have FRCOQ in the FESROI (the afternoon ramp leading up to the peak, outside the Hot Season). The FESROI and PESROI will likely overlap for some period, but not for the entire period. Offer shortfalls during FESROI which do not overlap with the PESROI are not deemed shortfalls for the purposes of Peak Capacity, and vice versa – this is handled in the refund calculations.

4.12.5. AEMO must determine the Peak Reserve Capacity Obligation Quantity for each Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility, for each Dispatch Interval for which the Separately Certified Component is assigned Peak Capacity Credits, as follows:

(a) the Peak Reserve Capacity Obligation Quantity for an Intermittent Generating System is equal to zero for each Dispatch Interval;

(b) subject to the exceptions specified in clauses 4.12.5(d) and 4.12.5(e), the Peak Reserve Capacity Obligation Quantity for a Non-Intermittent Generating System:

i. for a Dispatch Interval during a Trading Day where the maximum daily temperature at the site of the Non-Intermittent Generating System does not exceed 41 degrees Celsius, is equal to the number of Peak Capacity Credits assigned to the Non-Intermittent Generating System for the Dispatch Interval; and

ii. for a Dispatch Interval during a Trading Day where the maximum daily temperature at the site of the Non-Intermittent Generating System exceeds 41 degrees Celsius, is equal to:

$$PCC \times MSOC45 / MSOC41$$

where:

1. PCC is the number of Peak Capacity Credits assigned to the Non-Intermittent Generating System for the Dispatch Interval;

2. MSOC45 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Non-Intermittent Generating System

when it is operated normally at an ambient temperature of 45 degrees Celsius, as specified in Standing Data; and

3. MSOC41 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Non-Intermittent Generating System when it is operated normally at an ambient temperature of 41 degrees Celsius, as specified in Standing Data;

(c) subject to the exceptions specified in clauses 4.12.5(d), 4.12.5(f), ~~and~~ 4.12.5(g) and 4.12.5(h), the Peak Reserve Capacity Obligation Quantity for an Electric Storage Resource:

i. for a Dispatch Interval which does not fall within a~~n~~ Peak Electric Storage Resource Obligation Interval for that Electric Storage Resource, is equal to zero;

ii. for a Dispatch Interval which falls within a~~n~~ Peak Electric Storage Resource Obligation Interval for that Electric Storage Resource, during a Trading Day where the maximum daily temperature at the site of the Electric Storage Resource does not exceed 41 degrees Celsius, is equal to the number of Peak Capacity Credits assigned to the Electric Storage Resource for the Dispatch Interval; and

iii. for a Dispatch Interval which falls within a~~n~~ Peak Electric Storage Resource Obligation Interval for the Electric Storage Resource, during a Trading Day where the maximum daily temperature at the site of the Electric Storage Resource exceeds 41 degrees Celsius, is equal to:

~~CC × MSOC45 / MSOC41~~

PCC × MSOC45 / MSOC41

where:

1. PCC is the number of Peak Capacity Credits assigned to the Electric Storage Resource for the Dispatch Interval;

2. MSOC45 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 45 degrees Celsius, as specified in Standing Data; and

3. MSOC41 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 41 degrees Celsius, as specified in Standing Data;

(d) ~~where~~ if a Scheduled Facility or Semi-Scheduled Facility is subject to Commissioning Test Plan approved by AEMO in a Dispatch Interval, the Peak

Reserve Capacity Obligation Quantity for each Separately Certified Component of the Registered Facility is equal to zero for the Dispatch Interval and clauses 4.12.5(e) and 4.12.5(f) do not apply;

(e) subject to clause 4.12.5(d), ~~where~~ if a Separately Certified Component which is a Non-Intermittent Generating System is subject to a Planned Outage in a Dispatch Interval, the Peak Reserve Capacity Obligation Quantity of the Separately Certified Component for the Dispatch Interval is reduced from the value determined under clause 4.12.5(b) by the Peak Capacity Adjusted Planned Outage Quantity determined for the Separately Certified Component under clause 3.21.8;

(f) subject to clauses 4.12.5(d), ~~and~~ 4.12.5(g), and 4.12.5(h) ~~where~~ if a Separately Certified Component which is an Electric Storage Resource is subject to a Planned Outage in a Dispatch Interval, the Peak Reserve Capacity Obligation Quantity of the Separately Certified Component for the Dispatch Interval is reduced from the value determined under clause 4.12.5(c) by the Peak Capacity Adjusted Planned Outage Quantity determined for the Separately Certified Component under clause 3.21.8; ~~and~~

Explanatory Note

Currently, if a Facility containing an ESR is directed to operate at a level higher than its RCOQ, the ESR RCOQ is set to zero in all subsequent Trading Intervals. This is to manage instances where a hybrid Facility containing both an ESR and other Facility Technology Types is directed to operate, for example to provide Essential System Services. This will be retained.

Similarly, a Facility which has an ESR, and is dispatched in the FESROI will have its Peak RCOQ reduced in subsequent PESROI (but not subsequent FESROI) to reflect that it is being used in the ramp rather than the peak.

(g) ~~where~~ if:

i. AEMO issues a direction under clause 7.7.5 in respect of a Registered Facility containing a Separately Certified Component which is an Electric Storage Resource; and

ii. the direction requires the Registered Facility to operate at a level higher than its Peak Reserve Capacity Obligation Quantity in the Dispatch Interval to which the direction relates,

the Peak Reserve Capacity Obligation Quantity for the Electric Storage Resource is reduced to zero for all Dispatch Intervals subsequent to the Dispatch Interval in which the direction is issued in the relevant Trading Day and clause 4.12.5(f) does not apply for those Dispatch Intervals~~.~~; and

(h) if:

i. AEMO issues a Dispatch Instruction to a Registered Facility containing an Electric Storage Resource which holds Flexible Capacity Credits; and

ii. the Dispatch Instruction requires the Registered Facility to to operate in a Dispatch Interval which is within a Flexible Electric Storage Resource Obligation Interval and not within a Peak Electric Storage Resource Obligation Interval for that Electric Storage Resource;

the Peak Reserve Capacity Obligation Quantity for the Electric Storage Resource is reduced to zero in all subsequent Dispatch Intervals in the relevant Trading Day which are not within a Flexible Electric Storage Resource Obligation Interval, and clause 4.12.5(f) does not apply for those Dispatch Intervals.

4.12.6. The Peak Reserve Capacity Obligation Quantity for a Registered Facility f for a Trading Interval t is equal to:

$$PRCOQ(f,t)=\frac{\sum_{DI\in t} PRCOQ(f,DI)}{6}$$

where:

(a) DI∈t denotes all Dispatch Intervals DI in Trading Interval t; and

(b) PRCOQ(f,DI) is the Peak Reserve Capacity Obligation Quantity determined for Registered Facility f for Dispatch Interval DI under clause 4.12.4.

4.12.7. AEMO must determine the Flexible Reserve Capacity Obligation Quantity for each Scheduled Facility, Semi-Scheduled Facility, or Demand Side Programme for each Dispatch Interval as follows:

(a) the Flexible Reserve Capacity Obligation Quantity for a Registered Facility is equal to zero for each Dispatch Interval in which no Flexible Capacity Credits are assigned to the Registered Facility;

(b) the Flexible Reserve Capacity Obligation Quantity for a Demand Side Programme:

i. for a Dispatch Interval that falls within a period specified for the Demand Side Programme under clause 4.10.1(f)(vi), is equal to the number of Flexible Capacity Credits assigned to the Demand Side Programme for the Dispatch Interval, except if clauses 4.12.7(b)(iii) or 4.12.7(b)(iv) apply;

ii. for a Dispatch Interval that falls outside the periods specified for the Demand Side Programme under clause 4.10.1(f)(vi), is equal to zero;

iii. will equal zero for the remainder of a Capacity Year once the capacity of the Demand Side Programme has been dispatched under clause 7.6.5A for the number of Trading Intervals per Capacity Year that is specified for the Demand Side Programme under clause 4.10.1(f)(ii); and

iv. will equal zero for the remainder of a Trading Day once the capacity of the Demand Side Programme has been dispatched under clause

7.6.5A for the number of Trading Intervals per Trading Day that is specified for the Demand Side Programme under clause 4.10.1(f)(iii); and

(d) the Flexible Reserve Capacity Obligation Quantity for a Scheduled Facility or Semi-Scheduled Facility which is assigned Flexible Capacity Credits for a Dispatch Interval is equal to the sum of the Flexible Reserve Capacity Obligation Quantities determined under clause 4.12.8 for each Separately Certified Component of the Registered Facility for the relevant Dispatch Interval.

4.12.8. AEMO must determine the Flexible Reserve Capacity Obligation Quantity for each Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility, for each Dispatch Interval for which the Separately Certified Component is assigned Flexible Capacity Credits, as follows:

(a) the Flexible Reserve Capacity Obligation Quantity for an Intermittent Generating System is equal to the number of Flexible Capacity Credits assigned to the Intermittent Generating System for each Dispatch Interval;

(b) subject to the exceptions specified in clauses 4.12.8(d) and 4.12.8(e), the Flexible Reserve Capacity Obligation Quantity for a Non-Intermittent Generating System:

i. for a Dispatch Interval during a Trading Day where the maximum daily temperature at the site of the Non-Intermittent Generating System does not exceed 41 degrees Celsius, is equal to the number of Flexible Capacity Credits assigned to the Non-Intermittent Generating System for the Dispatch Interval; and

ii. for a Dispatch Interval during a Trading Day where the maximum daily temperature at the site of the Non-Intermittent Generating System exceeds 41 degrees Celsius, is equal to:

$$FCC \times MSOC45 / MSOC41$$

where:

1. FCC is the number of Flexible Capacity Credits assigned to the Non-Intermittent Generating System for the Dispatch Interval;

2. MSOC45 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Non-Intermittent Generating System when it is operated normally at an ambient temperature of 45 degrees Celsius, as specified in Standing Data; and

3. MSOC41 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Non-Intermittent Generating System

when it is operated normally at an ambient temperature of 41 degrees Celsius, as specified in Standing Data;

(c) subject to the exceptions specified in clauses 4.12.8(d), 4.12.8(f), 4.12.8(g) and 4.12.8(h), the Flexible Reserve Capacity Obligation Quantity for an Electric Storage Resource:

i. for a Dispatch Interval which does not fall within a Flexible Electric Storage Resource Obligation Interval, is equal to zero;

ii. for a Dispatch Interval which falls within a Flexible Electric Storage Resource Obligation Interval for that Electric Storage Resource, during a Trading Day where the maximum daily temperature at the site of the Electric Storage Resource does not exceed 41 degrees Celsius, is equal to the number of Flexible Capacity Credits assigned to the Electric Storage Resource for the Dispatch Interval; and

iii. for a Dispatch Interval which falls within a Flexible Electric Storage Resource Obligation Interval, during a Trading Day where the maximum daily temperature at the site of the Electric Storage Resource exceeds 41 degrees Celsius, is equal to:

$$FCC \times MSOC45 / MSOC41$$

where:

1. FCC is the number of Flexible Capacity Credits assigned to the Electric Storage Resource for the Dispatch Interval;

2. MSOC45 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 45 degrees Celsius, as specified in Standing Data; and

3. MSOC41 is the maximum sent out capacity, net of embedded and Parasitic Loads, that can be available for supply to the relevant Network from the Electric Storage Resource when it is operated normally at an ambient temperature of 41 degrees Celsius, as specified in Standing Data;

(d) if a Scheduled Facility or Semi-Scheduled Facility is subject to Commissioning Test Plan approved by AEMO in a Dispatch Interval, the Flexible Reserve Capacity Obligation Quantity for each Separately Certified Component of the Registered Facility is equal to zero for the Dispatch Interval and clauses 4.12.8(e) and 4.12.8(f) do not apply;

(e) subject to clause 4.12.8(d), if a Separately Certified Component which is a Non-Intermittent Generating System is subject to a Planned Outage in a Dispatch Interval, the Flexible Reserve Capacity Obligation Quantity of the Separately Certified Component for the Dispatch Interval is reduced from the value determined under clause 4.12.8(b) by the Flexible Capacity Adjusted

Planned Outage Quantity determined for the Separately Certified Component under clause 3.21.16;

(f) subject to clauses 4.12.8(d) and 4.12.8(g), if a Separately Certified Component which is an Electric Storage Resource is subject to a Planned Outage in a Dispatch Interval, the Flexible Reserve Capacity Obligation Quantity of the Separately Certified Component for the Dispatch Interval is reduced from the value determined under clause 4.12.8(c) by the Flexible Capacity Adjusted Planned Outage Quantity determined for the Separately Certified Component under clause 3.21.16; and

(g) if:

i. AEMO issues a direction under clause 7.7.5 in respect of a Registered Facility containing a Separately Certified Component which is an Electric Storage Resource; and

Explanatory Note

The Peak Reserve Capacity Obligation Quantity remains the relevant benchmark for an AEMO direction that will reduce obligations in future intervals. A Facility will be dispatched for more than its Flexible RCOQ in many intervals, but that should not limit the ESR's ability to meet its Flexible Capacity obligations.

ii. the direction requires the Registered Facility to operate at a level higher than its Peak Reserve Capacity Obligation Quantity in the Dispatch Interval to which the direction relates,

the Flexible Reserve Capacity Obligation Quantity for the Electric Storage Resource is reduced to zero for all Dispatch Intervals subsequent to the Dispatch Interval in which the direction is issued in the relevant Trading Day and clause 4.12.8(f) does not apply for those Dispatch Intervals.

4.12.9. The Flexible Reserve Capacity Obligation Quantity for a Registered Facility f for a Trading Interval t is equal to:

$$FRCOQ(f,t)=\frac{\sum_{DI\in t} FRCOQ(f,DI)}{6}$$

where:

(a) DI∈t denotes all Dispatch Intervals DI in Trading Interval t; and

(b) FRCOQ(f,DI) is the Flexible Reserve Capacity Obligation Quantity determined for Registered Facility f for Dispatch Interval DI under clause 4.12.7.

4.13. Reserve Capacity Security[3]

Explanatory Note

[3] See section 4.13A in relation to Reserve Capacity Security for Demand Side Programmes.

Reserve Capacity Security will be calculated based on Peak Capacity only, and forfeited only in relation to Peak Capacity shortfalls.

The footnote to the section heading has been deleted, as it should have been an explanatory note to the drafting.

4.13.1. ~~Where~~ If AEMO assigns Certified Reserve Capacity to a Facility (which, for the purposes of this section 4.13, excludes a Demand Side Programme) that is yet to enter service (or re-enter service after significant maintenance or having been upgraded), the relevant Market Participant must ensure that AEMO holds the benefit of a Reserve Capacity Security that is:

(a) in the form specified in clause 4.13.5; and

(b) an amount determined under clause 4.13.2(a) by the date and time specified in clause 4.1.13.

4.13.1A For the purposes of this section 4.13, ~~where~~ if an existing Facility is undergoing significant maintenance or being upgraded the requirement to provide Reserve Capacity Security applies only to the part of the Facility either undergoing significant maintenance or being upgraded.

4.13.1B. The obligation under clause 4.13.1 to provide Reserve Capacity Security does not apply ~~where~~ if the Market Participant has provided Reserve Capacity Security in relation to the same Facility for a previous Reserve Capacity Cycle, unless:

(a) the Facility is an existing Facility undergoing significant maintenance or being upgraded; or

(b) AEMO cancelled the Peak Capacity Credits assigned to the Facility for that previous Reserve Capacity Cycle in accordance with clause 4.20.14.

4.13.1C For the purposes of this section 4.13, a Facility includes part of a Facility, any upgrade or significant maintenance to an existing Facility, unless otherwise stated.

4.13.2. For the purposes of this section 4.13 the amount of Reserve Capacity Security is:

(a) at the time and date referred to in clause 4.1.13, 25 percent of the Peak Benchmark Reserve Capacity Price included in the Request for Expressions of Interest issued for the relevant Reserve Capacity Cycle, expressed in $/MW per year, multiplied by an amount equal to:

i. the Peak Certified Reserve Capacity assigned to the Facility; less

ii. the total of any Peak Certified Reserve Capacity amount specified in accordance with clause 4.14.1(d) or referred to in clause 4.14.7(c)(ii); and

(b) at the time and date referred to in clause 4.1.21, 25 percent of the Peak Benchmark Reserve Capacity Price included in the Request for Expressions of Interest issued for the relevant Reserve Capacity Cycle, expressed in $/MW

per year, multiplied by an amount equal to the total number of Peak Capacity Credits assigned to the Facility under clause 4.20.5A.

4.13.2A A Market Participant may apply to AEMO for a recalculation of the amount of Reserve Capacity Security required to be held for a Facility using the formula in clause 4.13.2(b) after the time and date referred to in clause 4.1.21.

4.13.2B Within 10 Business Days after receipt of a request from a Market Participant under clause 4.13.2A AEMO must recalculate the amount of Reserve Capacity Security required to be held by a Facility using the formula in clause 4.13.2(b). If the amount recalculated by AEMO under clause 4.13.2(b) is less than that originally calculated under clause 4.13.2(a) then AEMO must:

(a) notify the Market Participant of the result of the calculation;

(b) offer the Market Participant the opportunity to replace the Reserve Capacity Security in accordance with clause 4.13.2C, and

(c) if the Market Participant provides a replacement Reserve Capacity Security in accordance with clause 4.13.2C, return any excess Reserve Capacity Security.

4.13.2C ~~Where~~ If under clause 4.13.2B AEMO notifies a Market Participant that excess Reserve Capacity Security is currently held, then a Market Participant may replace the existing Reserve Capacity Security with replacement Reserve Capacity Security which must:

(a) be in the form specified in clause 4.13.5;

(b) be an amount not less than the amount required under clause 4.13.2(b); and

(c) become effective before AEMO returns any excess Reserve Capacity Security.

4.13.3. ~~Where~~ If a Market Participant's existing Reserve Capacity Security is due to expire or cease to have effect for any other reason and after that expiration the Market Participant will continue to have an obligation to ensure AEMO holds the benefit of a Reserve Capacity Security under clause 4.13.1, then that Market Participant must ensure that AEMO holds the benefit of replacement Reserve Capacity Security that is:

(a) in the form specified in clause 4.13.5;

(b) an amount not less than the amount required under clause 4.13.2; and

(c) effective when the existing Reserve Capacity Security expires or otherwise ceases to have effect.

4.13.4. ~~Where~~ If a Market Participant's Reserve Capacity Security is affected by any of the circumstances specified in the WEM Procedure referred to in clause 4.13.8 that may require replacement Reserve Capacity Security, then the Market Participant must

ensure that AEMO holds the benefit of replacement Reserve Capacity Security that is:

(a) in the form specified in clause 4.13.5;

(b) an amount not less than the level required under clause 4.13.2; and

(c) effective before the end of the next Business Day or within any longer period approved in writing by AEMO after the Market Participant first becomes aware of the relevant change in circumstance (whether by reason of the Market Participant's own knowledge or a notification by AEMO).

4.13.5. The Reserve Capacity Security for a Market Participant must be:

(a) an obligation in writing that:

i. is from a Security Provider;

ii. is a guarantee or bank undertaking in a form prescribed by AEMO;

iii. is duly executed by the Security Provider and delivered unconditionally to AEMO;

iv. constitutes valid and binding unsubordinated obligations of the Security Provider to pay to AEMO amounts in accordance with its terms which relate to the relevant Market Participant's obligations under the WEM Rules to pay compensation under clause 4.13.11; and

v. permits drawings or claims by AEMO up to a stated amount; or

(b) if AEMO in its discretion considers it an acceptable alternative in the circumstances to the obligation under clause 4.13.5(a), a Security Deposit.

4.13.6. ~~Where~~ If Reserve Capacity Security is provided as a Security Deposit in accordance with clause 4.13.5(b), it will accrue interest daily at the AEMO Deposit Rate, and AEMO must pay the Market Participant the interest accumulated at the end of each calendar month less any liabilities and expenses incurred by AEMO, including bank fees and charges.

4.13.7. [Blank]

4.13.8. AEMO must develop a WEM Procedure dealing with:

(a) determining Reserve Capacity Security;

(b) assessing persons against the Acceptable Credit Criteria;

(c) Reserve Capacity Security arrangements, including:

i. the form of acceptable guarantees and bank undertakings;

ii. where and how it will hold Security Deposits and how the costs and fees of holding Security Deposits will be met;

iiA. the circumstances that may require Reserve Capacity Security to be replaced for the purposes of clause 4.13.4; and

iii. the application of monies drawn from Reserve Capacity Security in respect of amounts payable by the relevant Market Participant to AEMO under clause 4.13.11A; and

(d) other matters relating to section 4.13.

4.13.9. If a Market Participant does not comply with clause 4.13.1 in full by the date and time specified in clause 4.1.13 for the Reserve Capacity Cycle to which the certification relates, the Certified Reserve Capacity assigned to that Facility will lapse for the purposes of these WEM Rules.

4.13.10. If a Market Participant that provides Reserve Capacity Security in respect of a Facility:

(a) either:

i. operates the Facility at a level which is at least equivalent to its Required Level, adjusted to 90 percent of the level of Peak Capacity Credits specified in clause 4.20.5A, in at least two Trading Intervals before the end of the relevant Capacity Year; or

ii. provides AEMO with a report under clause 4.13.10C, which specifies that the Facility can operate at a level which is at least equivalent to its Required Level, adjusted to 90 percent of the level of Peak Capacity Credits specified in clause 4.20.5A; and

(b) is considered by AEMO to be in Commercial Operation,

then AEMO will return the Reserve Capacity Security to the Market Participant as soon as practicable after the end of the relevant Capacity Year and in any event by 30 November of Year 4 of the relevant Reserve Capacity Cycle.

4.13.10A A Market Participant may request AEMO to determine that a Facility is in Commercial Operation for the purposes of Chapter 4 of these WEM Rules.

4.13.10B. On receipt of a request made under clause 4.13.10A AEMO must determine, within 20 Business Days, whether the Facility is in Commercial Operation. In making each such determination AEMO:

(a) must have regard to the following, if applicable:

i. whether the Facility has completed an approved Commissioning Test under clause 3.21A and subsequently produced energy for at least two Trading Intervals;

ii. any formal advice received from the Market Participant that it has completed an approved Commissioning Test under clause 3.21A and is commercially operational; and

iii. in accordance with clause 2.29.12, whether the Facility has installed Facility Sub-Metering; and

(b) may have regard to any additional information AEMO considers relevant.

4.13.10C. For a Facility, or component of a Facility, assigned a quantity of Certified Reserve Capacity under clause 4.11.2(b), a Market Participant may provide AEMO with a report, in accordance with the relevant WEM Procedure, prepared by an independent expert accredited by AEMO, before the end of the relevant Capacity Year. The report must specify the independent expert's best estimate of the level to which the Facility can operate, expressed in MW as a sent out value, at the time the report is prepared.

4.13.11. If a Market Participant that provides a Reserve Capacity Security in respect of a Facility fails to operate that Facility in accordance with clauses 4.13.10(a) and (b) before the end of the relevant Capacity Year then the Market Participant must pay to AEMO, as compensation to the market, an amount equal to the Reserve Capacity Security amount for that Facility as soon as practicable after the end of the relevant Capacity Year and in any event by 30 November of Year 4 of the relevant Reserve Capacity Cycle.

4.13.11A The payment obligation under clause 4.13.11 may be satisfied by AEMO drawing upon the Reserve Capacity Security for the Facility, and applying the amount claimed (after meeting AEMO's costs associated with doing so) so as to:

(a) firstly, offset the cost of funding Supplementary Capacity Contracts for any capacity shortage stemming entirely or in part from the Facility not being available; and

(b) secondly, once all costs to which clause 4.13.11A(a) refers are covered, make a rebate payment to Market Participants in proportion to their Peak Individual Reserve Capacity Requirements during the relevant Trading Day ~~Trading Month~~ in accordance with Chapter 9.

4.13.12. If the Reserve Capacity Security drawn upon under clause 4.13 is a Security Deposit, then the Market Participant forfeits the amount of the Security Deposit.

4.13.13 A Market Participant may apply to AEMO for the release of any Reserve Capacity Security held by AEMO, at any time prior to the end of the relevant Capacity Year, if the Reserve Capacity Security relates to a Facility that:

(a) has operated at a level equivalent to its Required Level, adjusted to 100 percent of the level of Peak Capacity Credits specified in clause 4.20.5A, in at least two Trading Intervals prior to the end of the relevant Capacity Year; and

(b) is considered by AEMO to be in Commercial Operation.

4.13.14 ~~Where~~ If AEMO receives an application made under clause 4.13.13 or clause 4.28C.12 it must, within 10 Business Days:

(a) determine whether the need to maintain the Reserve Capacity Security has ceased;

(b) notify the Market Participant of its determination;

(c) if the Reserve Capacity Security is a Security Deposit that is no longer required to be held, return the Security Deposit (plus interest earned); and

(d) if the Reserve Capacity Security is not a Security Deposit and is no longer required to be held, notify the provider that AEMO relinquishes any rights to draw on the Reserve Capacity Security.

Explanatory Note

DSM Reserve Capacity Security is renamed to DSP Reserve Capacity Security.

4.13A. ~~DSM~~ DSP Reserve Capacity Security

4.13A.1. ~~Where~~ If AEMO assigns Certified Reserve Capacity to a Demand Side Programme, the relevant Market Participant must ensure that AEMO holds the benefit of ~~DSM~~DSP Reserve Capacity Security that is:

(a) ~~where~~ if:

i. clause 4.1.13 applies, for an amount determined under clause 4.13A.2(a) by the date and time referred to in clause 4.1.13; or

ii. clause 4.1.21 applies, for an amount determined under clause 4.13A.2(b) by the date and time referred to in clause 4.1.21; and

(b) in the form specified in clause 4.13A.6.

4.13A.2. For the purposes of this section 4.13A, the amount of ~~DSM~~DSP Reserve Capacity Security is:

(a) 25 percent of the Peak Benchmark Reserve Capacity Price included in the Request for Expressions of Interest issued for the relevant Reserve Capacity Cycle, expressed in $/MW per year, multiplied by an amount equal to:

i. the Peak Certified Reserve Capacity assigned to the Demand Side Programme; less

ii. the total of any Peak Certified Reserve Capacity amount specified in accordance with clause 4.14.1(d) or referred to in clause 4.14.7(c)(ii); or

(b) 25 percent of the Peak Benchmark Reserve Capacity Price included in the Request for Expressions of Interest issued for the relevant Reserve Capacity Cycle, expressed in $/MW per year, multiplied by an amount equal to the total number of Peak Capacity Credits assigned to the Demand Side Programme under clause 4.20.5A.

4.13A.3. ~~Where~~ If:

(a) AEMO holds the benefit of a ~~DSM~~DSP Reserve Capacity Security in accordance with this section 4.13A in respect of a Demand Side Programme for a Reserve Capacity Cycle; and

(b) AEMO assigns Certified Reserve Capacity to the same Demand Side Programme for a subsequent Reserve Capacity Cycle,

then the ~~DSM~~DSP Reserve Capacity Security for the previous Reserve Capacity Cycle will be deemed to satisfy the requirement in clause 4.13A.1 for AEMO to have the benefit of ~~DSM~~DSP Reserve Capacity Security for the subsequent Reserve Capacity Cycle if:

(c) the amount of the ~~DSM~~DSP Reserve Capacity Security complies with clause 4.13A.4; and

(d) the ~~DSM~~DSP Reserve Capacity Security remains in force at all relevant times for the purposes of this section 4.13A.

4.13A.4. Subject to clause 4.13A.5, ~~where~~ if a Market Participant is required to ensure that AEMO holds the benefit of ~~DSM~~DSP Reserve Capacity Security for more than one Reserve Capacity Cycle, the total amount of the ~~DSM~~DSP Reserve Capacity Security for all of those Reserve Capacity Cycles in aggregate is the highest amount determined under clause 4.13A.1.

4.13A.5. The amount determined under clause 4.13A.4 does not include Reserve Capacity Cycles for which the Demand Side Programme does not have any Reserve Capacity Obligations.

4.13A.6. The ~~DSM~~DSP Reserve Capacity Security for a Demand Side Programme must be:

(a) an obligation in writing that:

i. is from a Security Provider;

ii. is a guarantee or bank undertaking in a form prescribed by AEMO;

iii. is duly executed by the Security Provider and delivered unconditionally to AEMO;

iv. constitutes valid and binding unsubordinated obligations of the Security Provider to pay to AEMO amounts in accordance with its terms which relate to the relevant Market Participant's obligations under the WEM Rules to pay compensation under this section 4.13A; and

v. permits drawings or claims by AEMO up to a stated amount; or

(b) if AEMO in its discretion considers it an acceptable alternative in the circumstances to the obligation under clause 4.13A.6(a), a Security Deposit.

4.13A.7. If, at any time, and for whatever reason, the amount of the ~~DSM~~DSP Reserve Capacity Security is less than the amount determined in accordance with clauses 4.13A.1 or 4.13A.4, as applicable, the Market Participant must immediately:

(a) in the case of a ~~DSM~~DSP Reserve Capacity Security in the form specified in clause 4.13A.6(a):

i. replace the ~~DSM~~DSP Reserve Capacity Security for the amount determined in accordance with clauses 4.13A.1 or 4.13A.4, as applicable; or

ii. provide a further ~~DSM~~DSP Reserve Capacity Security for the difference between the amount of the ~~DSM~~DSP Reserve Capacity Security and the amount determined in accordance with clauses 4.13A.1 or 4.13A.4, as applicable,

and, in both cases, the ~~DSM~~DSP Reserve Capacity Security must comply with clause 4.13A.6(a); or

(b) in the case of a Security Deposit, increase the amount of the Security Deposit to the amount determined in accordance with clauses 4.13A.1 or 4.13A.4, as applicable, and do all other things AEMO may require, including signing any deeds or other documents, to ensure AEMO has the benefit of the increase in the amount of the Security Deposit.

4.13A.8. In respect of a Reserve Capacity Cycle, after the time and date referred to in clause 4.1.23, a Market Participant may apply to AEMO for a recalculation of the amount of ~~DSM~~DSP Reserve Capacity Security required to be held for a Demand Side Programme under clauses 4.13A.1 or 4.13A.4, as applicable.

4.13A.9. Within ten Business Days after receipt of a request from a Market Participant under clause 4.13A.8, AEMO must recalculate the amount of ~~DSM~~DSP Reserve Capacity Security required to be held for a Demand Side Programme under clauses 4.13A.1 or 4.13A.4, as applicable. If the amount recalculated by AEMO under clauses 4.13A.1 or 4.13A.4, as applicable, is less than that previously calculated under clauses 4.13A.1 or 4.13A.4, as applicable, then AEMO must:

(a) notify the Market Participant of the result of the calculation;

(b) offer the Market Participant the opportunity to replace the ~~DSM~~DSP Reserve Capacity Security in accordance with clause 4.13A.10, and

(c) if the Market Participant provides a replacement ~~DSM~~DSP Reserve Capacity Security in accordance with clause 4.13A.10, return any excess ~~DSM~~DSP Reserve Capacity Security.

4.13A.10. ~~Where~~ If under clause 4.13A.9 AEMO notifies a Market Participant that excess ~~DSM~~DSP Reserve Capacity Security is currently held, then a Market Participant may replace the existing ~~DSM~~DSP Reserve Capacity Security with replacement ~~DSM~~DSP Reserve Capacity Security which must:

(a) be in the form specified in clause 4.13A.6;

(b) be an amount not less than the amount required under clauses 4.13A.1 or 4.13A.4, as applicable; and

(c) become effective before AEMO returns any excess ~~DSM~~DSP Reserve Capacity Security.

4.13A.11. ~~Where~~ If a Market Participant's existing ~~DSM~~DSP Reserve Capacity Security is due to expire or cease to have effect for any reason and after that expiration the Market Participant will continue to have an obligation to ensure AEMO holds the benefit of ~~DSM~~DSP Reserve Capacity Security under clause 4.13A.1, then the Market Participant must ensure that AEMO holds the benefit of replacement ~~DSM~~DSP Reserve Capacity Security that is:

(a) in the form specified in clause 4.13A.6;

(b) an amount not less than the amount required under clauses 4.13A.1 or 4.13A.4, as applicable; and

(c) effective when the existing ~~DSM~~DSP Reserve Capacity Security expires or otherwise ceases to have effect.

4.13A.12. ~~Where~~ If a Market Participant's ~~DSM~~DSP Reserve Capacity Security is affected by any of the circumstances specified in the WEM Procedure referred to in clause 4.13A.23 that may require replacement ~~DSM~~DSP Reserve Capacity Security, then the Market Participant must ensure that AEMO holds the benefit of replacement ~~DSM~~DSP Reserve Capacity Security that is:

(a) in the form specified in clause 4.13A.6;

(b) an amount not less than the level required under clauses 4.13A.1 or 4.13A.4, as applicable; and

(c) effective before the end of the next Business Day or within any longer period approved in writing by AEMO after the Market Participant first becomes aware of the relevant change in circumstance (whether by reason of the Market Participant's own knowledge or a notification by AEMO).

4.13A.13. ~~Where DSM~~ If DSP Reserve Capacity Security is provided as a Security Deposit in accordance with clause 4.13A.6(b), it will accrue interest daily at the AEMO Deposit Rate, and AEMO must pay the Market Participant the interest accumulated at the end of each calendar month less any liabilities and expenses incurred by AEMO, including bank fees and charges.

4.13A.14. If a Market Participant does not comply with clause 4.13A.1 in full by the date and time specified in clause 4.1.13 for the Reserve Capacity Cycle to which the certification relates, the Certified Reserve Capacity assigned to that Demand Side Programme will lapse for the purposes of these WEM Rules.

4.13A.15. If a Market Participant that provides ~~DSM~~DSP Reserve Capacity Security in respect of a Demand Side Programme fails to reduce the consumption of the Associated Loads for that Demand Side Programme to a level which is at least equivalent to its Required Level, adjusted to 90 percent of the level of Peak Capacity Credits specified in clause 4.20.5A, in at least two Trading Intervals before the end of the relevant Capacity Year, then the Market Participant must pay to AEMO, as compensation to the market, an amount equal to the ~~DSM~~DSP Reserve Capacity Security amount for that Demand Side Programme for that Capacity Year as soon as practicable after the

end of the relevant Capacity Year and in any event by 30 November of Year 4 of the relevant Reserve Capacity Cycle.

4.13A.16. The payment obligation under clause 4.13A.15 may be satisfied by AEMO drawing upon the ~~DSM~~DSP Reserve Capacity Security for the Demand Side Programme, and applying the amount claimed (after meeting AEMO's costs associated with doing so) so as to:

(a) firstly, offset the cost of funding Supplementary Capacity Contracts for any capacity shortage stemming entirely or in part from the Demand Side Programme not being available; and

(b) secondly, once all costs to which clause 4.13A.16(a) refers are covered, make a rebate payment to Market Participants in proportion to their Peak Individual Reserve Capacity Requirements during the relevant Trading Day in accordance with Chapter 9.

4.13A.17. If the ~~DSM~~DSP Reserve Capacity Security drawn upon under clause 4.13A.16 is a Security Deposit, then the Market Participant forfeits the amount of the Security Deposit for the applicable Capacity Year.

4.13A.18. A Market Participant may:

(a) ~~where~~ if AEMO has the benefit of ~~DSM~~DSP Reserve Capacity Security in accordance with this section 4.13A, request that the ~~DSM~~DSP Reserve Capacity Security be released; or

(b) ~~where~~ if the Market Participant is required to provide ~~DSM~~DSP Reserve Capacity Security in accordance with this section 4.13A, request that the requirement for ~~DSM~~DSP Reserve Capacity Security is waived.

4.13A.19. ~~Where~~ If AEMO receives a request under clause 4.13A.18 it must, within ten Business Days:

(a) having regard to the matters in clause 4.13A.20, determine whether AEMO will release the ~~DSM~~DSP Reserve Capacity Security or waive the requirement for ~~DSM~~DSP Reserve Capacity Security;

(b) notify the Market Participant of its determination;

(c) if the ~~DSM~~DSP Reserve Capacity Security is a Security Deposit that is to be released, return the Security Deposit (plus interest earned); and

(d) if the ~~DSM~~DSP Reserve Capacity Security is not a Security Deposit and is to be released, notify the Security Provider that AEMO relinquishes any rights to draw on the ~~DSM~~DSP Reserve Capacity Security.

4.13A.20. In making a determination under clause 4.13A.19, AEMO must have regard to the following matters:

(a) the size and type of the Loads associated with the Demand Side Programme;

(b) the historical performance of the Demand Side Programme, including the results of any Reserve Capacity Tests or Verification Tests; and

(c) any other matters AEMO considers relevant.

4.13A.21. If, at any time, AEMO is no longer satisfied that an assessment under clause 4.13A.20 would result in AEMO determining to release or waive the requirement for a Market Participant to provide AEMO with the benefit of ~~DSM~~DSP Reserve Capacity Security, AEMO must give notice to the Market Participant specifying:

(a) that the Market Participant must provide AEMO with the benefit of ~~DSM~~DSP Reserve Capacity Security;

(b) the reasons for its decision;

(c) the amount of the ~~DSM~~DSP Reserve Capacity Security as determined in accordance with clauses 4.13A.1 or 4.13A.4, as applicable; and

(d) the date by which the Market Participant must provide AEMO with the benefit of ~~DSM~~DSP Reserve Capacity Security, which must not be before the date which is five Business Days after the date of the notice.

4.13A.22. ~~Where~~ If a Market Participant receives a notice under clause 4.13A.21, the Market Participant must provide AEMO with the benefit of ~~DSM~~DSP Reserve Capacity Security for an amount and by the date specified in the notice.

4.13A.23. AEMO must document in a WEM Procedure the processes relating to:

(a) determining ~~DSM~~DSP Reserve Capacity Security;

(b) assessing persons against the Acceptable Credit Criteria;

(c) ~~DSM~~DSP Reserve Capacity Security arrangements, including:

i. the form of acceptable guarantees and bank undertakings;

ii. where and how it will hold Security Deposits and how the costs and fees of holding Security Deposits will be met;

iii. the circumstances that may require ~~DSM~~DSP Reserve Capacity Security to be replaced for the purposes of clause 4.13A.12; and

iv. the application of monies drawn from ~~DSM~~DSP Reserve Capacity Security in respect of amounts payable by the relevant Market Participant to AEMO under clause 4.13A.16; and

(d) requests under clause 4.13A.18, including:

i. how AEMO will make a determination on whether to accept or decline a request under clause 4.13A.19;

ii. the matters AEMO may take into account;

iii. the evidence a Market Participant will be required to provide in support of a request; and

iv. if AEMO declines a request, that AEMO will be required to provide reasons to the relevant Market Participant; and

(e) any other matters relating to this section 4.13A.

4.13A.24. If AEMO determines that a Market Participant no longer has any Reserve Capacity Obligations with respect to any Capacity Year for which the Market Participant was assigned Capacity Credits, AEMO must return any ~~DSM~~DSP Reserve Capacity Security to the Market Participant as soon as practicable after the end of the relevant Capacity Year and in any event by 30 November of Year 4 of the relevant Reserve Capacity Cycle.

4.13A.25. For the purposes of these WEM Rules, in determining whether a Demand Side Programme is in Commercial Operation, AEMO may have regard to any information AEMO considers relevant.

4.13B. Coordinator Review of Effectiveness of Certification of Reserve Capacity for energy and availability limited technologies~~Electric Storage Resources~~

4.13B.1. The Coordinator must review the effectiveness of the approach for certification of Reserve Capacity for Electric Storage Resources and other Capability Class 2 capacity in accordance with this section 4.13B.

4.13B.2. The Coordinator must complete a review under clause 4.13B.1:

(a) for the first review, within five years of the start of the 2021 Reserve Capacity Cycle; and

(b) for each subsequent review, at least once every five years from the completion of the preceding review under this section 4.13B.

Explanatory Note

The Coordinator no longer needs to consider the ESR obligation duration, as that will now be automatically extended based on the Availability Duration Gap.

The review will now include the approach to setting the ESR Duration Requirement and the Demand Side Programme Dispatch Requirement, as set out in clause 4.5.12.

4.13B.3. A review conducted under clause 4.13B.1 must examine~~-~~:

(a) whether the method~~ology~~ for rating the capacity of Electric Storage Resources and other Capability Class 2 capacity for the purposes of setting Certified Reserve Capacity remains consistent with the Wholesale Market Objectives;

(b) whether the use of different Peak Electric Storage Resource Obligation Duration~~s~~ for Electric Storage Resources commissioned in different years remains consistent with the Wholesale Market Objectives;

(c) whether the method to determine the ESR Duration Requirement ~~Electric Storage Resource Obligation Intervals~~ for Electric Storage Resources as set

out in clauses 4.12.5(a), 4.12.5(b), and 4.12.5(c) remains consistent with the Wholesale Market Objectives; ~~and~~

(d) whether the method~~ology~~ and processes used by AEMO to determine the First Peak Electric Storage Resource Obligation Intervals~~, in which the Reserve Capacity Obligation Quantity for Electric Storage Resources applies,~~ remain consistent with the Wholesale Market Objectives~~.~~;

(e) whether applying Flexible Capacity obligations only outside the Hot Season remains consistent with the Wholesale Market Objectives;

(f) any trend in the Availability Duration Gap from year to year, and its implications for the approach to certification of Capability Class 2 Facilities in the WEM;

(g) whether the method to determine the Demand Side Programme Dispatch Requirement, as set out in clauses 4.12.5(e) and 4.5.12(f) remains consistent with the Wholesale Market Objectives.

4.13B.4. In conducting a review under clause 4.13B.1, the Coordinator must invite submissions, and publish all submissions received, from Rule Participants and any other interested stakeholders.

4.13B.5. The Coordinator must publish a report containing:

(a) the issues identified by the Coordinator;

(b) the assumptions made by the Coordinator in undertaking the review;

(c) the results of any technical studies;

(d) a summary of any submissions on the draft report received by the Coordinator from Rule Participants and other interested stakeholders in accordance with clause 4.13B.4;

(e) the Coordinator's responses to the issues raised in those submissions;

(f) any recommendations of the Coordinator; and

(g) any other matters the Coordinator considers relevant to the review.

4.13B.6. If the Coordinator recommends changes as a result of the report prepared under this section 4.13B, the Coordinator must either submit a Rule Change Proposal or, ~~where~~ if the change relates to the WEM Procedure documented by AEMO under clause 4.11.3A, recommend that AEMO initiate a Procedure Change Process to implement those changes.

Commitment of Capacity to Bilateral Trade

4.14. Bilateral Trade Declaration

4.14.1. Subject to clause 4.14.1A and 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 and component of a Facility (expressed in MW to a precision of 0.001 MW):

(a) ~~[Blank]~~the total quantity of Flexible Certified Reserve Capacity the Market Participant intends to trade bilaterally;

(b) ~~[Blank]~~the total quantity of Flexible Certified Reserve Capacity that the Market Participant has decided will not be made available to the market;

(c) the total ~~amount~~quantity of Peak Certified Reserve Capacity the Market Participant intends to trade ~~will be traded~~ bilaterally; and

(d) the total ~~amount~~quantity of Peak Certified Reserve Capacity that the Market Participant has decided will not ~~now~~ be made available to the market.~~,~~

~~Where the sum of the values for clauses 4.14.1(c) and (d) must equal the Certified Reserve Capacity of the Facility for the Reserve Capacity Cycle.~~

4.14.1A The quantities provided under clause 4.14.1 must meet the following criteria:

(a) the sum of the quantities provided under clauses 4.14.1(a) and (b) must equal the Flexible Certified Reserve Capacity of the Facility for the Reserve Capacity Cycle;

(b) the sum of the quantities provided under clauses 4.14.1(c) and (d) must equal the Peak Certified Reserve Capacity of the Facility for the Reserve Capacity Cycle; and

(c) the quantity provided under clause 4.14.1A(a) must be less than or equal to the quantity provided under clause 4.14.1(c).

Explanatory Note

Market Participants can request that Facility upgrades that are Separately Certified Components receive a fixed capacity price.

4.14.1B. A Market Participant holding Certified Reserve Capacity for the current Reserve Capacity Cycle may, by the date and time specified in clause 4.1.14, nominate to AEMO by notice in writing that a ~~the~~ Facility or a Separately Certified Component be classified as a Fixed Price Facility or Fixed Price Component.

4.14.1C. For the purposes of clause 4.14.1B, a Facility or a Separately Certified Component may only be nominated to be classified as a Fixed Price Facility or Fixed Price Component if:

(a) the Facility or Separately Certified Component has not been assigned Capacity Credits in a previous Reserve Capacity Cycle;

(b) the Facility or Separately Certified Component is an Energy Producing System;

(c) the Facility or Separately Certified Component is not considered by AEMO to be in Commercial Operation;

(d) the Facility is not subject to an NCESS Contract (at the date Capacity Credits are first assigned to the Facility or Separately Certified Component);

(e) the Facility is not a Network Augmentation Funding Facility under section 4.10A; and

(f) section 4.28C does not apply to the Facility.

4.14.1D. A Market Participant holding Certified Reserve Capacity for the current Reserve Capacity Cycle for a Facility that is not committed must, by the date and time specified in clause 4.1.14, notify AEMO in writing of the Minimum Capacity Credits Quantity for the Facility for that Reserve Capacity Cycle.

4.14.2. A Capacity Credit (and the Reserve Capacity associated with a Capacity Credit) is "traded bilaterally" for the purposes of these WEM Rules ~~where~~ if:

(a) the Market Participant holding the Capacity Credits in respect of a Facility has entered into an arrangement with another Market Participant under which any of the Capacity Credits for that Facility will be allocated to the other Market Participant for settlement purposes to allow the other Market Participant to meet its Individual Reserve Capacity Requirements in accordance with sections 4.30 and 4.31; or

(b) the Market Participant holding the Capacity Credits in respect of a Facility allocates any of the Capacity Credits for that Facility for settlement purposes to meet its own Individual Reserve Capacity Requirements in accordance with sections 4.30 and 4.31.

4.14.3. A Market Participant holding Certified Reserve Capacity with respect to a Facility subject to an NCESS Contract must nominate all Certified Reserve Capacity under clauses 4.14.1(a) and 4.14.1(c) as applicable.

4.14.4. [Blank]

4.14.5 [Blank]

4.14.6. If two or more Facilities cannot simultaneously exist (for example, because more than one Market Participant is proposing to build a Facility that will be located at the same site,) then AEMO cannot accept a non-zero value provided in accordance with either or both of clauses 4.14.1(a) and 4.14.1(c) in respect of more than one of these Facilities and must reject all but one Facility based on the following criteria:

(a) Facilities that are operational or are committed will be accepted ahead of other Facilities; then

(b) if more than one Facility remains, then Facilities that can demonstrate having secured financing will be accepted ahead of other Facilities; then

(c) if more than one Facility remains, then Facilities with the greatest quantity of Peak Certified Reserve Capacity will be accepted ahead of Facilities with lower Peak Certified Reserve Capacity; then

(cA) if more than one Facility remains, then Facilities with the greatest quantity of Flexible Certified Reserve Capacity will be accepted ahead of Facilities with lower Flexible Certified Reserve Capacity; then

(d) if more than one Facility remains, then Facilities identified in Expressions of Interest will be accepted ahead of other Facilities; then

(e) if more than one Facility remains, then AEMO will accept one based on the order in which they applied for Certified Reserve Capacity, including applications for Conditional Certified Reserve Capacity.

4.14.7. AEMO must review the information provided by Market Participants in accordance with clause 4.14.1 to ensure that the information provided is consistent with the Certified Reserve Capacity of each Facility and the requirements of this section 4.14, and:

(a) if the information is not consistent, then AEMO must endeavour to resolve the discrepancy with the Market Participant within one Business Day of receipt;

(b) if the information is consistent, then AEMO must inform the Market Participant within one Business Day of receipt that the information is accepted; and

(c) if AEMO cannot establish what a Market Participant's intentions are with respect to all or part of its Certified Reserve Capacity within the time allowed for resolving discrepancies by clause 4.14.7(a), then the relevant part of that Market Participant's:

i. [Blank]

ii. Certified Reserve Capacity will be treated as being unavailable to the market,

and AEMO must notify the Market Participant of this outcome within one Business Day of the deadline for resolving discrepancies specified in clause 4.14.7(a).

4.14.8. If Certified Reserve Capacity is not to be made available to the market as a result of the acceptance by AEMO of information submitted by a Market Participant in accordance with clause 4.14.(b) or clause 4.14.1(d), or because clause 4.14.7(c)(ii) applies, then all obligations associated with that part of the Certified Reserve Capacity held by the relevant Market Participant are to terminate from the time AEMO notifies the Market Participant that it accepts the information provided in accordance with clause 4.14.1 or the application of clause 4.14.7(c)(ii) (as applicable) and that part of the Certified Reserve Capacity ceases to be Certified Reserve Capacity for the purposes of these WEM Rules (including for the purposes of determining an Initial Network Access Quantity under clause 4.1A.2).

4.14.9. AEMO must notify each Market Participant that specified a non-zero amount under clause 4.14.1(a) or 4.14.1(c) by the date and time specified in clause 4.1.15 of the quantitiesquantity of Peak Certified Reserve Capacity and Flexible Certified Reserve Capacity held by the Market Participant in respect of each Facility that it can trade bilaterally, where this quantitythese quantities must exclude Certified Reserve Capacity to which clause 4.14.8 relates.

4.14.10. [Blank]

4.14.11. AEMO must develop a WEM Procedure documenting the process AEMO and Market Participants must follow for the bilateral trade declaration under this section 4.14.

Network Access Quantity

4.15. Network Access Quantity

4.15.1. AEMO must determine Network Access Quantities and Indicative Network Access Quantities for Facilities in accordance with this section 4.15 and Appendix 3.

4.15.2. The Network Access Quantity for a Facility for a Reserve Capacity Cycle is the Final Network Access Quantity, if any, determined in accordance with the processes in Appendix 3 for that Reserve Capacity Cycle.

4.15.3. The assumptions that must be taken into account by the Network Access Quantity Model developed under clause 4.15.7, for the relevant Reserve Capacity Cycle are:

(a) assume that all major transmission Network elements are in service, except those which are normally configured to be out of service under peak demand conditions described in clause 4.4B.3;

(b) any other relevant information from Network Operators on the assumed status of the Network under peak demand conditions; and

(c) assume peak demand is equal to the value determined under clause 4.5.10(a)(iv) and used in the calculation of the Peak Reserve Capacity Requirement for the relevant Capacity Year.

4.15.4. Subject to clause 4.15.5, AEMO must develop, in accordance with the WEM Procedure referred to in clause 4.15.17, a range of facility dispatch scenarios that describe how Facilities could be dispatched at the time of peak demand (as described in clause 4.15.3(c)).

4.15.5. The facility dispatch scenarios to be developed by AEMO pursuant to clause 4.15.4 must:

(a) include, in AEMO's sole discretion, variations in the output of Facilities dispatched to meet peak demand;

(b) include Facilities with Peak Certified Reserve Capacity or Peak Early Certified Reserve Capacity for the relevant Reserve Capacity Cycle;

(c) ensure a Facility is not dispatched to a level greater than the Peak Certified Reserve Capacity or Peak Early Certified Reserve Capacity for the Facility; and

(d) include any other factors specified in the WEM Procedure referred to in clause 4.15.17.

4.15.6. AEMO must develop and maintain a Network Access Quantity Model in accordance with clause 4.15.7 and use the Network Access Quantity Model when undertaking the processes in Appendix 3 for each Reserve Capacity Cycle.

4.15.7. The Network Access Quantity Model must:

(a) apply the principles specified in clause 4.15.9;

(b) take into account the matters specified in clause 4.15.8 and the assumptions specified in clause 4.15.3;

(c) be in accordance with the processes in Appendix 3;

(d) incorporate the facility dispatch scenarios to be developed by AEMO under clause 4.15.4, RCM Constraint Equations, Constraint Equations developed using Non-Thermal Network Limits for Facilities (including Constraint Equations developed using Non-Thermal Network Limits under clause 4.4B.4), and the peak demand (as described in clause 4.15.3(c);

(e) comply with the WEM Procedure referred to in clause 4.15.17; and

(f) be consistent with the Wholesale Market Objectives.

4.15.8. The matters that must be taken into account by the Network Access Quantity Model developed under clause 4.15.6, for the relevant Reserve Capacity Cycle, are:

(a) committed network augmentations of the SWIS that are expected to be in service for the Capacity Year to which the Reserve Capacity Cycle relates;

(b) the expected retirement of Facilities pursuant to a notice provided under clause 4.4A.1;

(c) committed Network changes; and

(d) any other matters specified in the WEM Procedure referred to in clause 4.15.17.

4.15.9. The principles that must be applied by the Network Access Quantity Model under clause 4.15.7 are:

(a) ~~where~~ if a redispatch is required to avoid a constraint in the RCM Constraint Equations violating it is done so in a way that minimises the total change in output across all Facilities, subject to the NAQ rules as defined in Appendix 3;

(b) ~~where~~ if multiple Facilities are competing for Network Access Quantity and the available Network Access Quantity is insufficient for all of those Facilities to receive a value equal to the Peak Certified Reserve Capacity for each of those

Facilities, the available Network Access Quantity must be allocated in a manner that results in maximising the total Network Access Quantities determined for Facilities;

(c) the level of Network access expected to be available to the Facility is equal to at least 95% of the facility dispatch scenarios that could, applying the matters in clause 4.15.5, occur to meet peak demand (as described in clause 4.15.3(c)) on the SWIS for the relevant Capacity Year; and

(d) any Peak Certified Reserve Capacity assigned to a Facility in accordance with clause 4.11.1(bD) or clause 4.11.1(bE) is to be treated as unconstrained for the purposes of determining Network Access Quantities for Facilities in accordance with this section 4.15.

4.15.10. The Network Access Quantity determined for a Facility is to be expressed to a precision of 0.001 MW.

4.15.11. AEMO must notify each Market Participant that specified a non-zero amount under clause 4.14.1(c) of the Network Access Quantity, if any, determined for its Facility under clause 4.15.2 by the date and time specified in clause 4.1.16A.

4.15.12. A Network Access Quantity for a Facility that is to cease operation permanently is:

(a) deemed to be relinquished by the Market Participant in respect to the Reserve Capacity Cycle in which the Facility is intended to cease operation permanently; and

(b) the relinquishment is effective from the earlier of:

i. the expected closure date specified in the notice under section 4.4A.1 in respect to the Facility; and

ii. any earlier date pursuant to an amendment to the notice under clause 4.4A.1 in accordance with clause 4.4A.3,

regardless of whether the notice is subsequently withdrawn under clause 4.4A.6.

4.15.13. AEMO must determine and record a Highest Network Access Quantity for each Facility in accordance with clause 4.15.14.

4.15.14. The Highest Network Access Quantity for a Facility for a Reserve Capacity Cycle is the quantity determined by AEMO as being equal to:

(a) the Highest Network Access Quantity assigned to the Facility for the previous Reserve Capacity Cycle which may be increased or decreased for the current Reserve Capacity Cycle in accordance with clause 4.15.15; and

(b) ~~where~~ if the Facility has not been assigned a Highest Network Access Quantity in a previous Reserve Capacity Cycle, the Network Access Quantity determined by applying the method~~ology~~ described in Appendix 3 for the Capacity Year in respect of the current Reserve Capacity Cycle.

4.15.15. ~~Where~~ If, for a Reserve Capacity Cycle:

(a) a Facility, that is not assigned Certified Reserve Capacity using the Relevant Level Method ~~methodology described in clause 4.11.2(b)~~ and is assigned a quantity of Peak Certified Reserve Capacity that is less than the Highest Network Access Quantity for the Facility for that Reserve Capacity Cycle, the Highest Network Access Quantity for the Facility is to be reduced to equal the quantity of Peak Certified Reserve Capacity assigned to the Facility for that Reserve Capacity Cycle;

(b) the Network Access Quantity under clause 4.15.2 is higher than the Highest Network Access Quantity for the Facility, AEMO must increase the Highest Network Access Quantity for the Facility to an amount equal to the Network Access Quantity under clause 4.15.2; and

(c) a Facility is not assigned Certified Reserve Capacity for the Reserve Capacity Cycle, the Highest Network Access Quantity for the Facility is to be reduced to zero.

4.15.16. AEMO must publish the following information on the WEM Website by the date and time specified in clause 4.1.16A(d):

(a) the Network Access Quantity Model Inputs;

(b) the Network Access Quantity or Indicative Network Access Quantity determined for each Facility assessed in the Network Access Quantity Model; and

(c) the Highest Network Access Quantity for each Facility.

4.15.17. AEMO must document in a WEM Procedure:

(a) the processes, methodologies, inputs, parameters and assumptions to be applied in the Network Access Quantity Model for modelling the prioritisation and determination of Network Access Quantities to Facilities under Appendix 3;

(b) the processes to be followed by AEMO in determining the facility dispatch scenarios under clause 4.15.5;

(c) the processes AEMO must follow when determining Network Access Quantities for a Reserve Capacity Cycle, including how Network Access Quantities are determined for Facilities;

(d) the processes to be followed by AEMO for publishing the information under clause 4.15.16;

(e) without limiting any other provision of these WEM Rules, information that a Market Participant or Network Operator must provide to AEMO and the format it must be provided in, for the purposes of operating the Network Access Quantity Model and determining Network Access Quantities to Facilities under Appendix 3; and

(f) any other matters that AEMO reasonably deems relevant to performing its functions under this section 4.15.

The Benchmark Reserve Capacity Prices

4.16. The Benchmark Reserve Capacity Prices

4.16.1. For all Reserve Capacity Cycles, the Economic Regulation Authority must publish a Peak Benchmark Reserve Capacity Price and a Peak Benchmark Reserve Capacity Price as determined in accordance with this section 4.16 prior to the time specified in section 4.1.4.

4.16.2. ~~[Blank]~~The Peak Benchmark Reserve Capacity Price:

(a) must be expressed in dollars per MW;

(b) must reflect the expected annuallised capital cost of the Benchmark Peak Capacity Provider.

4.16.2A. The Flexible Benchmark Reserve Capacity Price:

(a) must be expressed in dollars per MW;

(b) must reflect the expected annuallised capital cost of the Benchmark Flexible Capacity Provider.

4.16.3 The Economic Regulation Authority must develop a WEM Procedure documenting the method~~ology~~ it must use and the process it must follow in determining the Benchmark Reserve Capacity Prices, and:

(a) the Economic Regulation Authority, AEMO and Rule Participants must follow that documented WEM Procedure when conducting any review and consultations in accordance with that WEM Procedure and clause 4.16.6; and

(b) the Economic Regulation Authority must follow that documented WEM Procedure to annually review the value of the Benchmark Reserve Capacity Prices in accordance with this section 4.16 and in accordance with the timing requirements specified in clause 4.1.19.

4.16.4. ~~[Blank]~~If a parameter to be used to determine the Benchmark Reserve Capacity Prices can be reasonably expected to change from year to year, the Economic Regulation Authority:

(a) must not specify a fixed value for that parameter in the WEM Procedure documented under clause 4.16.3; and

(b) must specify the principles and processes for determining that parameter in the WEM Procedure documented under clause 4.16.3.

4.16.5. The Economic Regulation Authority must revise the value of the Benchmark Reserve Capacity Prices using the method~~ology~~ described in the WEM Procedure referred to in clause 4.16.3.

4.16.6. The Economic Regulation Authority must prepare a draft report describing how it has arrived at ~~a~~ proposed revised values for the Benchmark Reserve Capacity Prices under clause 4.16.5. The Economic Regulation Authority must publish the report on its website and advertise the report in newspapers widely distributed in Western Australia and request submissions from all sectors of the Western Australia energy industry, including end-users.

4.16.7. After considering of the submissions on the draft report described in clause 4.16.6 the Economic Regulation Authority must propose ~~a~~ final revised values for the Benchmark Reserve Capacity Prices and publish ~~that~~ those values and its final report, including submissions received on the draft report on its website.

4.16.8. ~~A proposed~~Proposed revised values for the Benchmark Reserve Capacity Prices become~~s~~ the Benchmark Reserve Capacity Prices after the Economic Regulation Authority has posted a notice on its website of the new values of the Benchmark Reserve Capacity Prices with effect from the date and time specified in the Economic Regulation Authority's notice.

4.16.8A. Within five days of publication of the Benchmark Reserve Capacity Prices by the Economic Regulation Authority under clause 4.16.8, AEMO must publish the Benchmark Reserve Capacity Prices on the WEM Website.

4.16.9 At least once in every five year period, and within one year of each review completed under clause 4.16.11 the Economic Regulation Authority must review the WEM Procedure referred to in clause 4.16.3 and must undertake a public consultation process in respect of the outcome of the review.

4.16.10. If the Economic Regulation Authority recommends changes as a result of the review in clause 4.16.9, the Economic Regulation Authority must either submit a Rule Change Proposal or initiate a Procedure Change Process, as the case may be, to implement those changes.

Explanatory Note

The ERA will still determine the BRCP (for both Peak Capacity and Flexible Capacity), but the Coordinator will identify the underlying technology to be used. This implements outcome 9 from information paper two.

4.16.11. The Coordinator of Energy must determine the Benchmark Capacity Providers:

(a) by 31 January 2024; and

(b) within five years of the previous determination of the Benchmark Capacity Providers under this clause 4.16.11.

4.16.12. When determining the Benchmark Capacity Providers under clause 4.16.11, the Coordinator of Energy must determine:

(a) the appropriate reference technology to be used for each Benchmark Capacity Provider;

(b) the technical parameters to be used for each Benchmark Capacity Provider, including size and capabilities;

(c) the uncongested network location to be used for each Benchmark Capacity Provider, or if there is no uncongested network location, a network location with relatively low congestion; and

(d) whether the relevant Benchmark Reserve Capacity Price is to be assessed on the basis of:

i. the gross capital cost of the relevant Benchmark Capacity Provider; or

ii. the capital cost of the relevant Benchmark Capacity Provider less any expected contribution to capital costs from participation in the Real-Time Market.

4.16.13 The Coordinator must consult with Market Participants on the parameters determined under clause 4.16.12.

4.17. [Blank]

4.18. [Blank]

4.19. [Blank]

Capacity Credits

4.20. Capacity Credits

4.20.1. [Blank]

4.20.2. [Blank]

4.20.3. [Blank]

4.20.4. [Blank]

4.20.5. [Blank]

4.20.5A. AEMO must:

(a) subject to clause 4.20.5C, assign a quantity of Capacity Credits to each Facility where the quantity is determined in accordance with clauses 4.20.5B and 4.20.5BA for the relevant Facility;

(aA) determine whether the Peak Reserve Capacity Requirement has been met or exceeded with the Peak Capacity Credits (excluding any Peak Capacity Credits associated with any CC Uplift Quantities) assigned for Year 3 of a Reserve Capacity Cycle:

i. to Facilities to which section 4.13 applies, for which no Reserve Capacity Security was required to be provided under section 4.13; or

ii. to Demand Side Programmes determined by AEMO to be in Commercial Operation; ~~and~~

(aB) determine whether the Flexible Reserve Capacity Requirement has been met or exceeded with the Flexible Capacity Credits assigned for Year 3 of a Reserve Capacity Cycle:

i. to Facilities to which section 4.13 applies, for which no Reserve Capacity Security was required to be provided under section 4.13; or

ii. to Demand Side Programmes determined by AEMO to be in Commercial Operation; and

(b) publish, by the date and time specified in clause 4.1.16A:

i. AEMO's determinations under clause 4.20.5A(aA) and 4.20.5A(aB); and,

ii. for each Facility assigned Capacity Credits under clause 4.20.5A(a):

1. the quantity of Peak Capacity Credits assigned;

2. the quantity of Flexible Capacity Credits assigned;

~~2~~3. any CC Uplift Quantity associated with the Peak Capacity Credits assigned; and

~~3~~4. the Facility Class.

4.20.5AA. For each Reserve Capacity Cycle, ~~where~~ if AEMO has assigned Capacity Credits to Facilities or Separately Certified Components at any of the following prices, AEMO must publish a summary of the aggregate quantity of MW of Capacity Credits assigned to Facilities or Separately Certified Components at each price for the Reserve Capacity Cycle:

(a) the Peak Reserve Capacity Price;

(aA) the Flexible Reserve Capacity Price;

(b) if the Reserve Capacity Cycle is also a Transitional Reserve Capacity Cycle~~,~~;

i. the Facility Monthly Peak Reserve Capacity Price for a Transitional Facility determined in accordance with clause 4.29.1BA multiplied by 12; ~~and~~

ii. the Component Monthly Peak Reserve Capacity Price for a Transitional Component determined in accordance with clause 4.29.1B multiplied by 12;

iii. the Facility Monthly Flexible Reserve Capacity Price for a Transitional Facility determined in accordance with clause 4.29.1I multiplied by 12;

iv. the Component Monthly Flexible Reserve Capacity Price for a Transitional Component determined in accordance with clause 4.29.1H multiplied by 12;

(c) if the Reserve Capacity Cycle is also a Fixed Price Reserve Capacity Cycle~~,~~ :

i. the Facility Monthly Peak Reserve Capacity Price for each Fixed Price Facility that is a Fixed Price Facility for that Fixed Price Reserve Capacity Cycle determined in accordance with clause 4.29.1E ~~4.29.1D~~ multiplied by 12;~~.~~

ii. the Component Monthly Peak Reserve Capacity Price for each Fixed Price Component that is a Fixed Price Component for that Fixed Price Reserve Capacity Cycle determined in accordance with clause 4.29.1D multiplied by 12; and

iii. the Component Monthly Flexible Reserve Capacity Price for each Fixed Price Component that is a Fixed Price Component for that Fixed Price Reserve Capacity Cycle determined in accordance with clause 4.29.1J multiplied by 12.

~~(d) [Blank]~~

4.20.5B. The quantity of Peak Capacity Credits assigned to a Facility f is equal to the sum of:

(a) the Network Access Quantity determined by AEMO in accordance with section 4.15 for Facility f; and

(b) the CC Uplift Quantity applicable to Facility f as determined and amended by AEMO in accordance with section 4.1A.

4.20.5BA. The quantity of Flexible Capacity Credits assigned to a Facility f is equal to the lesser of:

(a) the Network Access Quantity determined by AEMO in accordance with section 4.15 for Facility f; and

(b) the Flexible Certified Reserve Capacity determined by AEMO in accordance with section 4.11.1 less the total of any Flexible Certified Reserve Capacity amount specified in accordance with clauses 4.14.1(b) and 4.14.7(c)(ii).

4.20.5C. ~~Where~~ If, for a Facility for a Reserve Capacity Cycle:

(a) the Network Access Quantity determined for the Facility in accordance with section 4.15 is not greater than zero; or

(b) a Network Access Quantity has not been determined for the Facility in accordance with section 4.15,

the Facility will not be eligible to be assigned a quantity of Capacity Credits under clause 4.20.5A(a) for that Reserve Capacity Cycle, including, to avoid doubt, a quantity equal to zero.

4.20.5D. [Blank]

4.20.6. [Blank]

4.20.7. Payments for Capacity Credits under these WEM Rules can only occur for the period between the time and date that the associated Reserve Capacity Obligations commence and the time and date that the associated Reserve Capacity Obligations cease.

4.20.8 If, by the date and time specified in clause 4.1.21B, AEMO becomes aware that no capacity associated with the Capacity Credits assigned to a new Facility that is yet to enter service will be made available to the market for an entire Capacity Year, it must issue a Notice of Intention to Cancel Capacity Credits to the Market Participant for that Facility for that Capacity Year.

4.20.9 A Notice of Intention to Cancel Capacity Credits issued to a Market Participant by AEMO, in accordance with clause 4.20.8, must include:

(a) the details of the Facility to which the Notice of Intention to Cancel Capacity Credits applies;

(aA) whether the Notice of Intention to Cancel Capacity Credits applies either Peak Capacity Credits, Flexible Capacity Credits, or both;

(b) details of the evidence considered by AEMO in determining that no capacity associated with the Capacity Credits assigned to the Facility will be made available to the market for the entire Capacity Year; and

(c) the Capacity Year for which the cancellation of Capacity Credits assigned to the Facility will apply.

4.20.10. Within 10 Business Days of being issued a Notice of Intention to Cancel Capacity Credits in accordance with clause 4.20.8, the Market Participant may make a submission to AEMO detailing any reasons it considers should be taken into account by AEMO in making a final determination to cancel the Capacity Credits assigned to the Facility for the Capacity Year.

4.20.11. ~~Where~~ If AEMO has issued a Notice of Intention to Cancel Capacity Credits in accordance with clause 4.20.8, AEMO must, within 20 Business Days of issuing the Notice of Intention to Cancel Capacity Credits, decide whether it will cancel the Capacity Credits assigned to the Facility for the Capacity Year.

4.20.12. ~~Where~~ If AEMO makes a decision to cancel the Capacity Credits assigned to a Facility for a Capacity Year in accordance with clause 4.20.11, it must notify the Market Participant of its decision within 5 Business Days, including:

(a) the details of the Facility;

(b) a response to all issues raised by the Market Participant in any submission made in accordance with clause 4.20.10;

(c) details of the evidence considered by AEMO in determining that no capacity associated with the Capacity Credits assigned to the Facility will be made available to the market for the entire Capacity Year; and

(d) the Capacity Year for which the cancellation of Capacity Credits assigned to the Facility will apply.

4.20.13. Within 10 Business Days of making a decision, in accordance with clause 4.20.11, to cancel the Capacity Credits assigned to a Facility AEMO must publish on the WEM Website the information specified in clauses 4.20.12(a), 4.20.12(c) and 4.20.12(d).

4.20.14. ~~Where~~ If AEMO has made a decision to cancel the Capacity Credits assigned to a Facility in accordance with clause 4.20.11, AEMO must cancel the Capacity Credits assigned to the Facility for the Capacity Year specified in clause 4.20.12(d).

4.20.15. ~~Where~~ If AEMO has made a decision not to cancel the Capacity Credits assigned to a Facility for a Capacity Year in accordance with clause 4.20.11, it must notify the Market Participant of its decision within 5 Business Days.

4.20.16. ~~Where~~ If AEMO has assigned Peak Capacity Credits to a Facility for a Capacity Year that is less than the total Peak Certified Reserve Capacity for each component of the Facility for that Capacity Year, the Market Participant must, by the date and time specified in clause 4.1.21A, notify AEMO of the number of Peak Capacity Credits that are to be associated with each component of the Facility for the Capacity Year, where the number must not exceed the Peak Certified Reserve Capacity assigned to each component of the Facility for that Capacity Year.

4.20.16A. If AEMO has assigned Flexible Capacity Credits to a Facility for a Capacity Year that is less than the total Flexible Certified Reserve Capacity for each component of the Facility for that Capacity Year, the Market Participant must, by the date and time specified in clause 4.1.21A, notify AEMO of the number of Flexible Capacity Credits that are to be associated with each component of the Facility for the Capacity Year, where:

(a) the number of Flexible Capacity Credits to be associated with a component must not exceed the Flexible Certified Reserve Capacity assigned to that component for that Capacity Year; and

(b) the number of Flexible Capacity Credits to be associated with a component must not exceed the number of Peak Capacity Credits to be associated with that component for the Capacity Year.

4.20.17. ~~Where~~ If AEMO has assigned Capacity Credits to a Facility for a Capacity Year, AEMO must set the number of Peak Capacity Credits and Flexible Capacity Credits to be associated with each component of the Facility for the Capacity Year as:

(a) the number of Peak Capacity Credits or Flexible Capacity Credits the Market Participant nominated to trade bilaterally under clause 4.14.1(c) or clause 4.14.1(a) as applicable; or

(b) ~~where~~ if clause 4.20.16 or 4.20.16A applies, the number of Peak Capacity Credits or Flexible Capacity Credits notified to AEMO under that clause to be associated with each component of the Facility.

4.20.18. AEMO must publish on the WEM Website, for each Market Participant holding Capacity Credits, the Capacity Credits provided by each Facility for each Reserve Capacity Cycle.

4.21. [Blank]

4.22. [Blank]

4.23. Capacity Credits and Force Majeure

4.23.1. There are no force majeure conditions associated with Capacity Credits.

4.23A. Capacity Credits and Facility Registration

4.23A.1. [Blank]

4.23A.2. [Blank]

4.23A.3. If at any time a Market Participant holds Capacity Credits with respect to a facility (the "**primary facility**") that must be registered as more than one Registered Facility, either as a result of Facility aggregation not being approved by AEMO or being revoked, then AEMO may re-allocate the Certified Reserve Capacity, Capacity Credits and Network Access Quantity of the primary facility between the primary facility and the Registered Facilities subject to the conditions that:

(a) the Registered Facilities were documented in the original application for Certified Reserve Capacity:

i. as contributing to the capacity covered by those Capacity Credits; and

ii. were represented in the same way in the Constraint Equations or Constraint Sets that were used to determine the total Network Access Quantity for the Registered Facilities;

(b) AEMO must not allocate more Certified Reserve Capacity, Network Access Quantity or Capacity Credits to a Registered Facility than that Registered Facility can provide based on information provided in the original application for Certified Reserve Capacity for the primary facility;

I after the re-allocation the total Certified Reserve Capacity, the total Network Access Quantity and the total number of Capacity Credits, respectively, of the primary facility and the Registered Facilities must equal the Certified Reserve Capacity, the Network Access Quantity and the number of Capacity Credits immediately prior to the re-allocation; and

(d) AEMO must consult with the applicable Market Participant and give consideration to its preferences in the re-allocations to the extent allowed by clauses 4.23A.3(a), 4.23A.3(b) and 4.23A.3(c).

4.23A.4. If at any time a Market Participant holds Capacity Credits with respect to Registered Facilities, for which AEMO has approved aggregation as a single Aggregated Facility in accordance with clause 2.30.7, then AEMO may re-allocate the Certified Reserve Capacity, Network Access Quantity, Capacity Credits and Reserve Capacity Obligation Quantities of the Registered Facilities to the Aggregated Facility subject to the conditions that:

(a) the information submitted with the application for aggregation must demonstrate that the Aggregated Facility can at all times meet the sum of the full Reserve Capacity Obligation Quantities of the Registered Facilities;

(aA) each Registered Facility is represented in the same way in the Constraint Equations or Constraint Sets that were used to determine the Network Access Quantity for each Registered Facility;

(b) AEMO must allocate to the Aggregated Facility the Certified Reserve Capacity, Network Access Quantity, Capacity Credits, Peak Reserve Capacity Obligation Quantity, and Peak Reserve Capacity Obligation Quantity it can provide based on information provided in the original application for Certified Reserve Capacity for the Registered Facilities;

I after the re-allocation the Certified Reserve Capacity, Network Access Quantity, the number of Capacity Credits and the Reserve Capacity Obligation Quantities of the Aggregated Facility must equal the sum of the Certified Reserve Capacities, Network Access Quantity, the total number of Capacity Credits, and the sum of the Reserve Capacity Obligation Quantities immediately prior to the aggregation; and

(d) the Network Access Quantity, Certified Reserve Capacity, Capacity Credits and the Reserve Capacity Obligation Quantities of the Aggregated Facility must at all times be capable of being disaggregated in accordance with clause 4.23A.3.

Explanatory Note

AEMO can source supplementary Peak Capacity for periods in the Hot Season, and supplementary Flexible Capacity for periods outside the Hot Season.

Addressing Shortages of Reserve Capacity

4.24. Supplementary Capacity

4.24.1. If, at any time after the day which is six months before the start of a Capacity Year AEMO considers that inadequate Peak Capacity ~~Reserve Capacity~~ will be available in the SWIS to maintain Power System Security and Power System Reliability, using the most recent published forecasts and the method~~ology~~ outlined in clauses 4.5.9(a) and 4.5.9(b) and any other information AEMO considers relevant, then it must:

(a) determine the expected start and end dates for the period of the shortfall;

(b) determine the expected amount of the shortfall; and

(c) seek to acquire supplementary Peak Capacity ~~capacity~~ in accordance with clause 4.24.2.

4.24.1A. Without limiting clause 4.24.1, if, at any time after the day which is six months before the start of a Capacity Year AEMO considers that there is a risk that adequate Peak Capacity ~~Reserve Capacity~~ may not be available in the SWIS to maintain Power System Security and Power System Reliability, then it may advertise a call for expressions of interest for supplementary Peak Capacity ~~capacity~~ by publishing a notice on the WEM Website and issuing a Market Advisory.

4.24.1AA. If, at any time after the day which is nine months before the start of a Capacity Year AEMO considers that inadequate Flexible Capacity will be available to maintain Power System Security and Power System Reliability between 1 October and 30 November of that Capacity Year, using the most recent published forecasts and the method outlined in clauses 4.5.9(c) and any other information AEMO considers relevant, then it must:

(a) determine the expected start and end dates for the period of the shortfall;

(b) determine the expected amount of the shortfall; and

(c) seek to acquire supplementary Flexible Capacity in accordance with clause 4.24.2.

4.24.1AB. Without limiting clause 4.24.1AA, if, at any time after the day which is nine months before the start of a Capacity Year AEMO considers that there is a risk that adequate Flexible Capacity may not be available to maintain Power System Security and Power System Reliability between 1 October and 30 November of that Capacity Year, then it may advertise a call for expressions of interest for supplementary Flexible Capacity by publishing a notice on the WEM Website and issuing a Market Advisory.

4.24.1AC. If, at any time after the day which is three months before the start of a Capacity Year AEMO considers that inadequate Flexible Capacity will be available to maintain Power System Security and Power System Reliability between 1 April and 30 September of that Capacity Year, using the most recent published forecasts and the

method outlined in clauses 4.5.9(c) and any other information AEMO considers relevant, then it must:

(a) determine the expected start and end dates for the period of the shortfall;

(b) determine the expected amount of the shortfall; and

(c) seek to acquire supplementary Flexible Capacity in accordance with clause 4.24.2.

4.24.1AD. Without limiting clause 4.24.1AC, if, at any time after the day which is three months before the start of a Capacity Year AEMO considers that there is a risk that adequate Flexible Capacity may not be available to maintain Power System Security and Power System Reliability between 1 April and 30 September of that Capacity Year, then it may advertise a call for expressions of interest for supplementary Flexible Capacity by publishing a notice on the WEM Website and issuing a Market Advisory.

4.24.1B. A notice calling for expressions of interest for supplementary capacity in accordance with clause 4.24.1A, clause 4.24.1AB, or clause 4.24.1AD must include:

(a) the date and time by when any person wishing to respond to the call for expressions of interest must have completed and lodged with AEMO the form specified in clause 4.24.1B(i);

(b) contact details for AEMO and Western Power;

(bA) whether the supplementary capacity will be Peak Capacity or Flexible Capacity;

(c) AEMO's preliminary estimate of the amount of capacity which AEMO considers may be required if AEMO decides to seek to acquire supplementary capacity pursuant to clause 4.24.1;

(d) AEMO's preliminary estimate of the number of hours over which the capacity is expected to be used;

(e) AEMO's preliminary estimate of the time of the day where the capacity is expected to be required;

(f) AEMO's preliminary estimate of the term of any Supplementary Capacity Contract if AEMO decides to seek to acquire supplementary capacity pursuant to clause 4.24.1;

(g) AEMO's preliminary estimate of the maximum contract value per hour of availability for any Supplementary Capacity Contract that AEMO will accept if AEMO decides to seek to acquire supplementary capacity pursuant to clause 4.24.1;

(gA) a statement that a respondent must provide evidence that it has access to a network, or has taken steps to obtain access to a network, where applicable;

(h) the location on the WEM Website of the standard Supplementary Capacity Contract;

(i) the location on the WEM Website of the form to be used in responding to the call for expressions of interest; and

(j) the location on the WEM Website of the WEM Procedure referred to in clause 4.24.18.

4.24.1C. Following the close of a call for expressions of interest for supplementary capacity in accordance with clause 4.24.1A or clause 4.24.1AB, AEMO:

(a) must assess all responses received by the closing date, and may assess any late responses;

(b) must consult with Western Power on any network access matters related to the proposed Eligible Services specified in the responses in accordance with the WEM Procedure referred to in clause.4.24.18; and

(c) must, for each response assessed by it, provide feedback to each respondent on whether AEMO or Western Power, as applicable, considers the Eligible Services the respondent proposes to provide would be likely to be capable of meeting the requirements outlined in the call for expressions of interest and contained in the standard Supplementary Capacity Contract.

4.24.2. If AEMO decides to seek to acquire supplementary capacity and:

(a) the expected start date of the shortfall is at least 12 weeks from the date AEMO becomes aware of the shortfall, then it must call for tenders from potential suppliers of supplementary capacity in an invitation to tender;

(b) clause 4.24.2(a) does not apply, then it must either:

i. call for tenders from potential suppliers of supplementary capacity in an invitation to tender; or

ii. negotiate directly with potential suppliers of supplementary capacity.

4.24.3. The only eligible sources of supplementary Peak Capacity ~~capacity~~ are the following services ("**Peak Eligible Services**"):

(a) load reduction, that is measures to reduce a consumer's consumption of electricity supplied through the SWIS from that which the consumer would have otherwise consumed, but excluding reductions provided by a Market Participant with a Demand Side Programme that does not satisfy its Reserve Capacity Obligations during the current Capacity Year or did not satisfy its Reserve Capacity Obligations during the immediately preceding Capacity Year;

(b) the production of electricity by Energy Producing Systems that are not Registered Facilities; and

(c) the production of electricity by Energy Producing Systems that are Registered Facilities, or load reductions provided by loads, but only to the extent that the

electricity is generated, or the load reduction is provided, by capacity for which the relevant Market Participant:

i. does not hold Peak Capacity Credits in the current Capacity Year or has not held Peak Capacity Credits in the current Capacity Year or the immediately preceding Capacity Year; or

ii. provides evidence satisfactory to AEMO, prior to a Supplementary Capacity Contract taking effect, that:

1. costs have been incurred to enable the provision of the capacity through the installation of physical equipment; and

2. the capacity is in addition to the sent out capacity of the Energy Producing Systems, or the maximum amount of load that can be curtailed, that existed prior to the installation of the physical equipment.

4.24.3A. The only eligible sources of supplementary Flexible Capacity are the following services ("**Flexible Eligible Services**"):

(a) load reduction, that is measures to reduce a consumer's consumption of electricity supplied through the SWIS from that which the consumer would have otherwise consumed and which meets the minimum requirements published under clause 4.10.1A(d), but excluding reductions provided by a Market Participant with a Demand Side Programme that does not satisfy its Reserve Capacity Obligations during the current Capacity Year or did not satisfy its Reserve Capacity Obligations during the immediately preceding Capacity Year;

(b) load increase, that is measures to increase a consumer's consumption of electricity supplied through the SWIS from that which the consumer would have otherwise consumed and which meets the minimum requirements published under clause 4.10.1A(d), but excluding increase provided by a Market Participant with a Demand Side Programme that does not satisfy its Reserve Capacity Obligations during the current Capacity Year or did not satisfy its Reserve Capacity Obligations during the immediately preceding Capacity Year;

(c) the production of electricity by Energy Producing Systems that meet the minimum requirements published under clause 4.10.1A(d) and are not Registered Facilities; and

(d) the production of electricity by Energy Producing Systems that are Registered Facilities, or load reductions provided by loads, but only to the extent that the electricity is generated, or the load reduction is provided, by capacity that meets the minimum requirements published under clause 4.10.1A(d), and for which the relevant Market Participant:

i. does not hold Flexible Capacity Credits in the current Capacity Year or has not held Flexible Capacity Credits in the current Capacity Year or the immediately preceding Capacity Year; or

ii. provides evidence satisfactory to AEMO, prior to a Supplementary Capacity Contract taking effect, that:

1. costs have been incurred to increase the flexibility of the capacity so that it meets the minimum requirements published under clause 4.10.1A(d) through the installation of physical equipment; and

2. the capacity is in addition to the Flexible Capacity of the Facility that existed prior to the installation of the physical equipment.

4.24.4. A person is not required to be a Rule Participant in order to submit a tender in response to a call for tenders under clause 4.24.2 or enter into a Supplementary Capacity Contract with AEMO. However, if a Rule Participant does enter into a Supplementary Capacity Contract with AEMO, then it must comply with that contract.

4.24.5. AEMO must not call for tenders for supplementary capacity earlier than six calendar months prior to the calendar month in which the shortfall period is expected to start.

4.24.6. If AEMO decides to call for tenders for supplementary capacity, then, no earlier than 30 Business Days and no later than 10 Business Days prior to the proposed closing date for submission of tenders, AEMO must advertise the call for tenders in accordance with clause 4.24.6A. The advertisement must include:

(a) the date and time by when any person wishing to tender to supply Eligible Services must have completed and lodged with AEMO the form specified in clause 4.24.7;

(b) contact details for AEMO and Western Power;

(bA) whether the capacity will be supplementary Peak Capacity or supplementary Flexible Capacity;

(c) the amount of capacity required;

(d) the number of hours over which the capacity is expected to be used;

(e) the time of the day where the capacity is expected to be required;

(f) the expected term of any Supplementary Capacity Contracts entered into as a result of the call for tenders;

(g) the maximum contract value per hour of availability for any Supplementary Capacity Contract that AEMO will accept;

(h) the location on the WEM Website of the standard Supplementary Capacity Contract; and

(i) the location on the WEM Website of the tender form to be used in applying to provide Eligible Services.

4.24.6A. In advertising the call for tenders in accordance with clause 4.24.6, AEMO must:

(a) publish a notice on the WEM Website;

(b) publish a notice on at least one major tender portal; and

(c) issue a Market Advisory.

4.24.7. AEMO must prescribe the tender form to be used by those applying to provide Eligible Services. This form must require the provision of the following information:

(a) the name and contact details of the applicant;

(b) the nature of the Eligible Service to be provided;

(c) the amount of the Eligible Service available;

(d) the maximum number of hours over the term of the Supplementary Capacity Contract that the Eligible Service will be available;

(e) the maximum number of hours on each day during the term of the Supplementary Capacity Contract that the Eligible Service will be available;

(f) the time of each day during the term of the Supplementary Capacity Contract that the Eligible Service will be available;

(g) any information required to complete the relevant standard form Supplementary Capacity Contract for the Eligible Service and the applicant, together with full details of any amendments to the standard form Supplementary Capacity Contract required by the applicant;

(h) the mechanism for activating the Eligible Service;

(i) the mechanisms available for measuring the Eligible Service provided;

(j) the values of

i. the availability price for the Eligible Service expressed in dollars; and

ii. the activation price for the Eligible Service, expressed in dollars per hour of activation, where this price must reflect direct or opportunity costs incurred,

where the activation price plus:

iii. the availability price; divided by

iv. the lesser of:

1. the number of hours specified in the advertisement for the call for tenders under clause 4.24.6(d); and

2. the number of hours specified for the Eligible Service in accordance with clause 4.24.7(d),

must not exceed the maximum contract value per hour of availability specified in the advertisement for the call for tenders under clause 4.24.6(g);

(k) the location of the Eligible Service and any associated Transmission Node Identifier and any associated NMI, where applicable;

(l) evidence that the Eligible Service will have access to a network for the contract period, where applicable; and

(m) the applicant's consent for Western Power to provide AEMO with relevant information, including information related to meters, meter readings and status of access arrangements, where applicable.

4.24.8. In determining the result of a call for tenders and entering into Supplementary Capacity Contracts:

(a) AEMO must only accept an offer for the provision of Eligible Services;

(b) AEMO must not accept an offer for the provision of a Peak Eligible Service ~~an Eligible Service~~ if AEMO is not satisfied that the Peak Eligible Service will be available during times of system peak demand coinciding with the shortfall period;

(bA) AEMO must not accept an offer for the provision of a Flexible Eligible Service if AEMO is not satisfied that the Flexible Eligible Service will be available during times of high ramp coinciding with the shortfall period;

(c) subject to clauses 4.24.8(a), 4.24.8(b) and 4.24.9, AEMO is to seek to enter into the lowest cost mix of Supplementary Capacity Contracts that:

i. will meet the requirement for supplementary ~~capacity~~ Peak Capacity or supplementary Flexible Capacity; or

ii. will, if it is not possible to meet the requirement for supplementary ~~capacity~~ Peak Capacity or supplementary Flexible Capacity, minimise the remaining Peak Capacity ~~Reserve Capacity~~ shortfall or Flexible Capacity shortfall,

where the cost of each Supplementary Capacity Contract is to be defined to be the sum of:

iii. the availability price; plus

iv. the product of the activation price and the lesser of:

1. the number of hours specified in the advertisement for the call for tenders under clause 4.24.6(d); and

2. the number of hours specified for the Eligible Service in the relevant tender form in accordance with clause 4.24.7(d); and

(d) AEMO must be reasonably satisfied that the provider of the Eligible Service has access to a network, where applicable.

4.24.9. AEMO is not under any obligation to accept any tender, or enter into a Supplementary Capacity Contract in respect of any tender, made in response to a call for tenders under clause 4.24.2.

4.24.10. If AEMO negotiates directly with a potential supplier of Eligible Services in accordance with clause 4.24.2(b)(ii), then it must provide the following information to the potential supplier:

(a) the amount of capacity required;

(aA) whether the capacity will be supplementary Peak Capacity or supplementary Flexible Capacity;

(b) the relevant standard form Supplementary Capacity Contract; and

(c) details of the information to be provided by the potential supplier, including:

i. the amount of the Eligible Service available;

ii. the mechanism for activating the Eligible Service;

iii. the mechanisms available for measuring the Eligible Service provided;

iv. the availability price for the Eligible Service expressed in dollars;

v. the activation price for the Eligible Service, expressed in dollars per hour of activation, where this price must reflect direct or opportunity costs incurred; and

vi. the location of the Eligible Service and any associated Transmission Node Identifier and any associated NMI, where applicable.

4.24.11. Subject to clauses 4.24.3, 4.24.3A, 4.24.11B and 4.24.14, AEMO may at its discretion enter into any negotiated Supplementary Capacity Contract, but must use reasonable endeavours to minimise the cost of Eligible Services acquired in this manner.

4.24.11A. ~~Where~~ If AEMO has issued a call for tenders under clauses 4.24.2(a) or 4.24.2(b)(i), AEMO must not enter into negotiations for a negotiated Supplementary Capacity Contract under clause 4.24.11 before the completion of the tender, including, to avoid doubt, assessment of all in-time responses received by AEMO in response to the tender.

4.24.11B. Following the completion of a tender process called under clauses 4.24.2(a) or 4.24.2(b)(i) and any negotiations in accordance with clause 4.24.2(b)(ii), as applicable, AEMO must publish on the WEM Website the following information for each Supplementary Capacity Contract:

(a) the name of the service provider that has been contracted to provide supplementary capacity;

(aA) whether the Supplementary Capacity Contract is for Peak Capacity or Flexible Capacity;

(b) the quantity contracted under the Supplementary Capacity Contract;

(c) whether the contract was entered in through a tender process or direct negotiation; and

(d) the type of the Eligible Service contracted.

4.24.12. AEMO must, in consultation with stakeholders, develop and maintain a standard form Supplementary Capacity Contract, which accords with the requirements in clause 4.24.13.

4.24.13. A standard form Supplementary Capacity Contract will require the supplier of an Eligible Service to reduce net consumption, or to increase energy production, on instruction from AEMO and must specify:

(a) that there are no force majeure conditions;

(b) the settlement process to be followed, including timing of payments;

(c) contract variation conditions;

(d) any conditions required to ensure that if a different person takes over the facility used to provide the Eligible Service, that the person taking over will be bound by the contract obligations (for example, by requiring the execution of a deed of assumption or novation);

(e) the financial consequences of failing to supply the Eligible Service in accordance with the contract, based on the arrangements which apply under section 4.26 ~~where~~ if a Market Participant holding Capacity Credits for a Facility fails to comply with its Reserve Capacity Obligations;

(f) [Blank]

(g) the technical standards and verification arrangements which facilities used to provide Eligible Services must comply with, including for Flexible Eligible Services the minimum requirements published under clause 4.10.1A(d); and

(h) blank schedules specifying:

i. the term of the Supplementary Capacity Contract, where:

1. for supplementary Peak Capacity, this term is not to exceed, but may be shorter than, the Hot Season;

2. for supplementary Flexible Capacity, this term is not to apply during the Hot Season;

ii. the sources of the net consumption reduction or energy production increase;

iii. the amount of net consumption reduction or energy production increase required;

iv. the notification time to be given for activation;

v. the method of notification of activation;

vi. the minimum duration of any activation;

vii. the maximum duration of any single activation;

viii. any limits on the number of times AEMO can request activation;

ix. the basis to be used for measuring the response;

x. the availability price;

xi. the activation price;

xii. technical matters relating to the facility (including testing); and

xiii. the fact that activation instructions will be given by AEMO.

4.24.14. AEMO must enter into a Supplementary Capacity Contract in the form of the standard form Supplementary Capacity Contract, except ~~where~~ if AEMO considers that one or more variations are reasonably required, having regard to the specific characteristics of the facility providing the supplementary capacity and to any other matter that AEMO considers appropriate, AEMO may enter into a Supplementary Capacity Contract containing such variations.

4.24.14A. The notification time for activation specified in a Supplementary Capacity Contract must be aligned, to the extent practicable and considering the characteristics of the facility providing the Eligible Service, with the notification time applicable to a similar type of facility providing a similar service under the WEM Rules.

4.24.15. AEMO must recover the full cost it incurs in respect of Supplementary Capacity Contracts in accordance with section 4.28 and Chapter 9.

4.24.16. AEMO must verify the ability of each contracted Eligible Service to provide the maximum quantity contracted under the Supplementary Capacity Contract.

4.24.17. [Blank]

4.24.18. AEMO must document in a WEM Procedure:

(a) the process it follows in:

i. acquiring Eligible Services;

ii. entering into Supplementary Capacity Contracts;

iii. determining the maximum contract value per hour of availability for any Supplementary Capacity Contract;

iv determining how a payment in relation to a Supplementary Capacity Contract is to be made to the party identified in clause 4.29.3(e)(ii) if that party is not a Market Participant; and

v. determining under clause 4.24.8(d) that a provider of an Eligible Service has access to the network;

(b) requirements regarding the information and assistance AEMO may require from Western Power to support:

i. an expression of interest process or a procurement process for supplementary capacity under this section 4.24;

ii. measuring the performance of activated Eligible Services subject to a Supplementary Capacity Contract;

(c) requirements, developed in consultation with Western Power, regarding the information that must be provided by those intending to respond to a call for expression of interest under clause 4.24.1A, clause 4.24.1AB, or clause 4.24.1AD, or intending to provide supplementary capacity in response to a call for tender or direct negotiation under clause 4.24.2, who request assistance or an assessment from Western Power in accordance with clause 4.24.18B;

(d) timelines, developed in consultation with Western Power ~~where~~ if applicable, for the provision of requested information and for assistance or an assessment of requests submitted; and

(e) contact details for Western Power which must be used by AEMO or those applying to provide Eligible Services when assistance or assessment by Western Power is requested in accordance with clause 4.24.18B.

4.24.18A. Western Power must provide information and respond to requests for assistance or assessment related to the provision of supplementary capacity under this section 4.24 in accordance with the WEM Procedure referred to in clause 4.24.18.

4.24.18B. A request to Western Power for assistance or an assessment by those intending to respond to a call for expressions of interest under clause 4.24.1A, clause 4.24.1AB, or clause 4.24.1AD, or intending to provide supplementary capacity in response to a call for tenders or direct negotiation under clause 4.24.2 or a request to Western Power by AEMO must:

(a) be in writing and addressed to the contact nominated by Western Power in the WEM Procedure referred to in clause 4.24.18;

(b) allow sufficient time to enable Western Power to provide the assistance or make the assessment requested in accordance with the timelines specified under clause 4.24.18(d); and

(c) contain the information and analysis as may be required under the WEM Procedure referred to in clause 4.24.18.

4.24.19. Following each call for tenders for supplementary capacity or otherwise acquiring Eligible Services, the Coordinator must review the supple4mentary capacity provisions of this section 4.24 with regard to the Wholesale Market Objectives and must undertake a public consultation process in respect of the outcome of the review.

Testing, Monitoring and Compliance

4.25. Reserve Capacity Testing

4.25.1. AEMO must take steps to verify, in accordance with clause 4.25.2, that each Facility or Separately Certified Component of a Facility assigned Peak Capacity Credits can:

(a) in the case of a Non-Intermittent Generating System or an Electric Storage Resource, during the period the Reserve Capacity Obligations apply, operate at a level equivalent to its Required Level, adjusted to the level of Peak

Capacity Credits currently held by the Facility or Separately Certified Component, as applicable, at least once during each of the following periods:

i. 1 October to 31 March; and

ii. 1 April to 30 September,

which for a Non-Intermittent Generating System, must be achieved on each type of fuel detailed under clause 4.10.1(e)(v)(1)(ii); and

(b) [Blank]

(c) in the case of a Demand Side Programme, during the period the Reserve Capacity Obligations apply, other than a Trading Interval the subject of a Verification Test, decrease its consumption to operate at a level equivalent to its Required Level, adjusted to the level of Peak Capacity Credits currently held, at least once during the period between 1 October to 31 March.

4.25.1A. Notwithstanding anything else in this section 4.25, clause 4.25.1 does not apply to an Intermittent Generating System or Non-Scheduled Facility. To avoid doubt, an Intermittent Generating System or Non-Scheduled Facility is not subject to Peak Reserve Capacity Tests under this section 4.25.

Explanatory Note

New clause 4.25.1B sets out the specific testing requirements for facilities holding Flexible Capacity Credits.

For generators and storage, this means two tests per year, one in summer and one in winter. Participants can request to have these scheduled at the same time as their Peak Capacity tests.

For Demand Side Programmes, this means a new test during the winter period.

This implements review outcome 5 in information paper two.

4.25.1B. AEMO must take steps to verify, in accordance with clause 4.25.1C, that each Facility or Separately Certified Component of a Facility assigned Flexible Capacity Credits can:

(a) in the case of a Non-Intermittent Generating System or an Electric Storage Resource, during the period the Reserve Capacity Obligations apply, start from a cold state and ramp to provide Injection at a MW quantity matching the number of Flexible Capacity Credits currently held while meeting the minimum standards set under clause 4.10.1A(d), at least once during each of the following periods:

i. 1 October to 31 March; and

ii. 1 April to 30 September,

which for a Non-Intermittent Generating System, must be achieved on each type of fuel detailed under clause 4.10.1(e)(v)(1)(ii); and

(b) in the case of a Demand Side Programme, during the period the Reserve Capacity Obligations apply, decrease its consumption to operate at a level

equivalent to its Relevant Demand minus the Flexible Capacity Credits assigned to the Facility, while meeting the minimum standards set under clause 4.10.1A(d) at least once during the period between 1 April to 30 September.

4.25.1C. AEMO may verify the matters specified in clause 4.25.1B by:

(a) in the case of a Facility that is not required to install Facility Sub-Metering in accordance with clause 2.29.12:

i. observing the Facility operate as part of normal market operations as determined from Meter Data Submissions; or

ii. subject to clause 4.25.2B, testing, in accordance with clause 4.25.9, and the Facility successfully passing that test as determined from Meter Data Submissions;

(b) in the case of a Demand Side Programme, testing, in accordance with clause 4.25.9, and the Facility successfully passing that test as determined from metered consumption;

(c) in the case of a Facility required to install Facility Sub-Metering in accordance with clause 2.29.12:

i. observing the Facility operate, in respect of each Separately Certified Component, as part of normal operations as determined from Meter Data Submissions and meter data recorded by the Facility Sub-Metering; or

ii. subject to clause 4.25.2B, testing, in accordance with clause 4.25.9, in respect of each Separately Certified Component, as determined from Meter Data Submissions and meter data recorded by the Facility Sub-Metering and that Separately Certified Component successfully passing the test.

4.25.2. AEMO may verify the matters specified in clause 4.25.1 by:

(a) in the case of a Facility that is not required to install Facility Sub-Metering in accordance with clause 2.29.12:

i. observing the Facility operate as part of normal market operations as determined from Meter Data Submissions for not less than:

1. for a Non-Intermittent Generating System, two consecutive Trading Intervals; or

2. for an Electric Storage Resource, the Peak Electric Storage Resource Obligation Duration; or

ii. subject to clause 4.25.2B, testing, in accordance with clause 4.25.9, for not less than:

1. for a Non-Intermittent Generating System, two consecutive Trading Intervals; or

2. for an Electric Storage Resource, the Peak Electric Storage Resource Obligation Duration,

and the Facility successfully passing that test as determined from Meter Data Submissions;

(b) in the case of a Demand Side Programme:

i. [Blank]

ii. testing, in accordance with clause 4.25.9, for not less than two consecutive Trading Intervals and the Facility successfully passing that test as determined from metered consumption;

(c) [Blank]

(d) [Blank]

(e) in the case of a Facility required to install Facility Sub-Metering in accordance with clause 2.29.12:

i. observing the Facility operate, in respect of each Separately Certified Component, as part of normal operations as determined from Meter Data Submissions and meter data recorded by the Facility Sub-Metering, for not less than:

1. for a Non-Intermittent Generating System, two consecutive Trading Intervals; or

2. for an Electric Storage Resource, the Peak Electric Storage Resource Obligation Duration; or

ii. subject to clause 4.25.2B, testing, in accordance with clause 4.25.9, in respect of each Separately Certified Component, as determined from Meter Data Submissions and meter data recorded by the Facility Sub-Metering, for not less than:

1. for a Non-Intermittent Generating System, two consecutive Trading Intervals; or

2. for an Electric Storage Resource, the Peak Electric Storage Resource Obligation Duration,

and that Separately Certified Component successfully passing the test.

4.25.2A. A Market Participant for a Facility required to install Facility Sub-Metering in accordance with clause 2.29.12 may provide AEMO with meter data, recorded by Facility Sub-Metering, by:

(a) 5 February, in respect of the immediately preceding period commencing 1 October; and

(b) 5 August, in respect of the immediately preceding period commencing 1 April,

for the purposes of observing the Separately Certified Component in accordance with clause 4.25.2(e)(i) or clause 4.25.1C(c)(i).

4.25.2B. AEMO must subject a Facility or Separately Certified Component to a Reserve Capacity Test under clauses 4.25.2(a)(ii) or 4.25.2(e)(ii) ~~where~~ if:

(a) the Market Participant for the Facility, has not provided meter data, recorded by the Facility Sub-Metering to AEMO, ~~where~~ if applicable, in accordance with and by the time specified in clause 4.25.2A;

(b) AEMO has determined, in accordance with clauses 4.25.2(a)(i) or 4.25.2(e)(i), that the Facility or Separately Certified Component of the Facility, as applicable, did not operate at the level specified in clause 4.25.1(a) by:

i. 31 January, in respect of the immediately preceding period 1 October to 31 January; and

ii. 31 July, in respect of the immediately preceding period 1 April to 31 July; or

(c) AEMO is conducting a re-test in accordance with clause~~s~~ 4.25.4 ~~and 4.25.6~~, 4.25.6(a)(i), 4.25.6(b)(i) or 4.25.6(c)(i).

4.25.2BA. AEMO must subject a Facility or Separately Certified Component to a Reserve Capacity Test under clause 4.25.1C(a)(ii) or 4.25.1C(c)(ii) if:

(a) the Market Participant for the Facility, has not provided meter data, recorded by the Facility Sub-Metering to AEMO, if applicable, in accordance with and by the time specified in clause 4.25.2A;

(b) AEMO has determined, in accordance with clauses 4.25.1C(a)(i) or 4.25.1C(c)(i), that the Facility or Separately Certified Component of the Facility, as applicable, did not demonstrate the capability specified in clause 4.25.1B(a) by:

i. 31 January, in respect of the immediately preceding period 1 October to 31 January; and

ii. 31 July, in respect of the immediately preceding period 1 April to 31 July; or

(c) AEMO is conducting a re-test in accordance with clause 4.25.3F, 4.25.6(a)(ii), 4.25.6(b)(ii) or 4.25.6(c)(ii).

4.25.2C. A Market Participant for a Facility required to install Facility Sub-Metering in accordance with clause 2.29.12 that is tested by AEMO in accordance with clauses 4.25.1C(c)(ii), 4.25.2(e)(ii), 4.25.3F, 4.25.4 or 4.25.6 must provide meter data, recorded by Facility Sub-Metering, for the Reserve Capacity Test period to AEMO within five Business Days of the Reserve Capacity Test.

4.25.2D. ~~Where~~ If the Market Participant does not provide meter data to AEMO in accordance with and by the time specified in clause 4.25.2C, AEMO must reduce the Capacity

Credits associated with the Separately Certified Component of the Facility subject to the Reserve Capacity Test to zero from the second Trading Day following the Scheduling Day on which AEMO determines the deadline for providing that meter data to AEMO under clause 4.25.2C.

4.25.2E. AEMO must, in assessing the performance of a Facility or Separately Certified Component tested for Peak Capacity in accordance with clauses 4.25.2(a), 4.25.2(e), 4.25.4 or 4.25.6:

(a) in the case of an Electric Storage Resource, measure the average performance across the Peak Electric Storage Resource Obligation Duration based on the average performance across the ~~eight~~ Trading Intervals; and

(b) in the case of a Non-Intermittent Generating System, measure the maximum performance in each Trading Interval.

4.25.3. AEMO must not subject a Facility to more Reserve Capacity Tests than it considers are required to satisfy the verification requirements of this section 4.25.

4.25.3A. AEMO must not subject a Facility to a Reserve Capacity Test if:

(a) that Facility is subject to a Planned Outage, or

(b) the relevant Market Participant has advised AEMO of a Forced Outage for that Facility in accordance with clause 3.21.2; or

(c) that Facility is undergoing a Commissioning Test approved in accordance with section 3.21A.

Explanatory Note

New clauses 4.25.3B and 4.25.3D allow Market Participants to opt to have tests for Peak and Flexible Capacity scheduled at the same time.

4.25.3B. A Market Participant may request that AEMO tests its Facility or Separately Certified Component under clauses 4.25.1C(a) and 4.25.2(a)(ii), clauses 4.25.1C(b) and 4.25.2(b)(ii), or clauses 4.25.1C(c)(ii) and 4.25.2(e)(ii) in a single Reserve Capacity Test.

4.25.3C. If a Market Participant makes a request under clause 4.25.3B, AEMO must comply with that request unless doing so would endanger Power System Security or Power System Reliability.

Explanatory Note

Previously, DSPs which failed two tests had their capacity credits reduced to the amount actually achieved. Now, DSPs failing tests will be assessed capacity refunds until passing a test. DSP owners still have the option to voluntarily surrender the capacity credits to avoid further refunds (but will forfeit a portion of their reserve capacity security).

This was decided in review outcome 5 of information paper two.

4.25.3D. If a Demand Side Programme fails a Reserve Capacity Test requested by AEMO under clause 4.25.2, AEMO must determine the Peak DSP Test Shortfall as the Peak Capacity Credits held by the relevant Market Participant for that Facility less the maximum level of reduction achieved in the Reserve Capacity Test.

4.25.3E. If a Demand Side Programme fails a Reserve Capacity Test requested by AEMO under clause 4.25.1C, AEMO must determine the Flexible DSP Test Shortfall as the Flexible Capacity Credits held by the relevant Market Participant for that Facility less the maximum level of reduction achieved in the Reserve Capacity Test while still meeting the minimum standards set under clause 4.10.1A(d).

4.25.3F. Subject to clause 4.25.4G, if a Facility, or a Separately Certified Component of a Facility, fails a Reserve Capacity Test requested by AEMO under clause 4.25.1C, AEMO must re-test that Facility, or Separately Certified Component of that Facility, as applicable, in accordance with clause 4.25.1C, not earlier than 14 days and not later than 28 days after the first Reserve Capacity Test.

4.25.3G. If a Facility, or Separately Certified Component of that Facility, as applicable, fails a second Reserve Capacity Test under clause 4.25.3F, then AEMO must, from the second Trading Day following the Scheduling Day on which AEMO determines that the second Reserve Capacity Test was failed:

(a) if the Reserve Capacity Test related to a Non-Intermittent Generating System or an Electric Storage Resource, reduce the number of Flexible Capacity Credits held by the relevant Market Participant for that Facility or Separately Certified Component of that Facility to reflect the maximum capabilities achieved in either Reserve Capacity Test performed; or

(b) if the Reserve Capacity Test related to a Demand Side Programme, recalculate the Flexible DSP Test Shortfall as the number of Flexible Capacity Credits held by the relevant Market Participant for that Facility less the maximum level of reduction achieved in either of the two Reserve Capacity Tests while still meeting the minimum standards set under clause 4.10.1A(d).

4.25.4. Subject to clause 4.25.4G, if a Facility, or a Separately Certified Component of a Facility, fails a Reserve Capacity Test requested by AEMO under clause 4.25.2, AEMO must re-test that Facility, or Separately Certified Component of that Facility, as applicable, in accordance with clause 4.25.2, not earlier than 14 days and not later than 28 days after the first Reserve Capacity Test. If the Facility, or Separately Certified Component of that Facility, as applicable, fails this second Reserve Capacity Test, then AEMO must, from the second Trading Day following the Scheduling Day on which AEMO determines that the second Reserve Capacity Test was failed:

(a) if the Reserve Capacity Test related to a Non-Intermittent Generating System, reduce the number of Peak Capacity Credits held by the relevant Market Participant for that Facility or Separately Certified Component of that Facility to reflect the maximum capabilities achieved in either Reserve Capacity Test performed, in accordance with 4.25.2E(b) (after adjusting these results to the

equivalent values at a temperature of 41 degrees Celsius and allowing for the capability provided by operation on different types of fuels);

(b) if the Reserve Capacity Test related to a Demand Side Programme, recalculate the Peak DSP Test Shortfall as ~~reduce~~ the number of Peak Capacity Credits held by the relevant Market Participant for that Facility less ~~to~~ the maximum level of reduction achieved in either of the two Reserve Capacity Tests; or

(c) if the Reserve Capacity Test related to an Electric Storage Resource, reduce the number of Peak Capacity Credits held by the relevant Market Participant for that Facility or Separately Certified Component of that Facility to reflect the higher average performance achieved over the Peak Electric Storage Resource Obligation Duration in either Reserve Capacity Test, in accordance with 4.25.2E(a) (after adjusting these results to performance at a temperature of 41 degrees Celsius).

4.25.4A A Market Participant may apply to AEMO for a reduction in the number of Capacity Credits the Market Participant holds for a Facility.

4.25.4B. In order for an application under clause 4.25.4A to be assessed by AEMO, it must:

(a) be in writing;

(b) relate to:

i. a Facility (other than a Demand Side Programme) for which AEMO has notified the Market Participant, in accordance with clause 4.13.14, of its determination that the need to maintain the Reserve Capacity Security for that Facility has ceased; or

ii. a Demand Side Programme that AEMO has determined is in Commercial Operation;

(bA) indicate whether the application relates to Peak Capacity Credits, Flexible Capacity Credits or both;

(c) detail the reasons for the reduction in the number of Capacity Credits;

(cA) ~~where~~ if the Facility contains multiple Separately Certified Components:~~,~~ ~~specify how the reduction in the number of Capacity Credits relates to each Separately Certified Component; and~~

i. specify how the reduction in the number of Capacity Credits relates to each Separately Certified Component;

ii. ensure that the number of Flexible Capacity Credits associated with the Separately Certified Component is less than or equal to the number of Peak Capacity Credits associated with the Separately Certified Component;

(cB) ensure that the number of Flexible Capacity Credits associated with the Facility is less than or equal to the number of Peak Capacity Credits associated with the Facility;

(d) indicate whether the application relates only to the current Capacity Year or includes subsequent Capacity Years.

4.25.4C. Upon receiving an application under clause 4.25.4A, AEMO 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 quantity ~~amount~~ of Capacity Credits held by the Market Participant in respect of the Facility, or Separately Certified Component of the Facility, to which the application relates, ensuring that:

i. the number of Flexible Capacity Credits relating to a Facility is less than or equal to the number of Peak Capacity Credits relating to the Facility; and

ii. the number of Flexible Capacity Credits relating to a Separately Certified Component is less than or equal to the number of Peak Capacity Credits relating to the Separately Certified Component

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

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

Explanatory Note

When a Demand Side Programme fails a Reserve Capacity Test, it will pay refunds on the portion of capacity not delivered. If it does not pass another test, it will keep paying refunds on that capacity for the rest of the Capacity Year. Alternatively, the Market Participant can voluntarily surrender Capacity Credits relating to the failed quantity and will forfeit DSP Reserve Capacity Security in relation to the unsupplied quantity.

This implements the parts of review outcome 7 from information paper two relating to Demand Side Programme refunds.

If a DSP had a long period of paying refunds it could end up paying refunds worth 125% of its capacity payments. If the owner then chose to voluntarily reduce all the capacity credits, it would also forfeit DSP RC security to the value of 25% of its peak payments.

This clause ensures that the combination of refunds and forfeited DSP RC Security does not exceed 125% of capacity payments. It does this by keeping track of the amount of refunds that have offset security forfeits.

4.25.4CC. If AEMO reduces Peak Capacity Credits for Demand Side Programme f on Trading Day d under clause 4.25.4C(c), AEMO must calculate a Peak Capacity Reduction Payment as follows:

(a) if $UnallocatedRefundAmount(f,d) \leq CumulativePeakCapacityPayments(f,d-1)$ then:

$$PeakCapacityReductionPayment(f,d) = ReserveCapacitySecurityAmount(f,cy)$$

(b) if $UnallocatedRefundAmount(f,d) > (CumulativePeakCapacityPayments(f,d-1) + ReserveCapacitySecurityAmount(f,cy))$ then:

$$PeakCapacityReductionPayment(f,d) = 0$$

(c) otherwise:

$$PeakCapacityReductionPayment(f,d) = \text{CumulativePeakCapacityPayments}(f,d-1) + \text{ReserveCapacitySecurityAmount}(f,cy) - \text{UnallocatedRefundAmount}(f,d)$$

where:

(d) PeakCapacityCreditReductionPayment(f,d) is the Peak Capacity Credit Reduction Payment for Demand Side Programme f on Trading Day d;

(e) UnallocatedRefundAmount(f,d) is the Unallocated Refund Amount for Facility f in Trading Day d, calculated as:

$$UnallocatedRefundAmount(f,d) = \max(0, CumulativeRefundAmount(f,d) - CumulativeAllocatedRefundAmount(f,d-1))$$

(f) CumulativeRefundAmount(f,d) is the sum of all Peak Demand Side Programme Capacity Cost Refunds applicable to Demand Side Programme f in Trading Days in the same Capacity Year up to and including Trading Day d;

(g) CumulativeAllocatedRefundAmount(f,d) is the Cumulative Allocated Refund Amount for Demand Side Programme f in Trading Day d, which is calculated as:

$$CumulativeAllocatedRefundAmount(f,d) = CumulativeAllocatedRefundAmount(f,d-1) + AllocatedRefundAmount(f,d) - AdditionalReductionPaymentAmount(f,d),$$

and when d is the first Trading Day of a Capacity Year, CumulativeAllocatedRefundAmount(f,d-1)=0;

(h) AllocatedRefundAmount(f,d) is the Allocated Refund Amount for Demand Side Programme f in Trading Day d, calculated as:

$$AllocatedRefundAmount(f,d) = \min\left(UnallocatedRefundAmount(f,d), CumulativePeakCapacityPayments(f,d-1) + ReserveCapacitySecurityAmount(f,cy)\right)$$

(h) CumulativePeakCapacityPaymentAmount(f,d) is the cumulative amount of Peak Capacity payments relating to the the reduction in Peak Capacity Credits for Demand Side Programme f on Trading Day d, calculated as:

$$CumulativePeakCapacityPayments(f,d) = CumulativePeakCapacityPayments(f,d-1) + ReductionQuantity(f,d) \times FDPRCP(f,d),$$

and when d is the first Trading Day of a Capacity Year, CumulativePeakCapacityPayments(f,d-1)=0;

(i) AdditionalReductionPaymentAmount(f,d) is the Additional Reduction Payment Amount for Demand Side Programme f on Trading Day d, calculated as:

$$AdditionalReductionPaymentAmount(f,d) = \max(0, CumulativeAllocatedRefundAmounts(f,d-1) - CumulativeRefundAmount(f,d))$$

(i) ReserveCapacitySecurityAmount(f,cy) is the amount of DSP Reserve Capacity Security relating to the reduction in Peak Capacity Credits, calculated as:

$$ReserveCapacitySecurityAmount(f,cy) = ReductionQuantity(f,d) \times 0.25 \times FMPRCP(f,cy) \times 12$$

(j) ReductionQuantity(f,d) is the quantity of Peak Capacity Credits that AEMO reduced Demand Side Programme f by under clause 4.25.4(c) in Trading Day d which, for the avoidance of doubt, excludes any previous reductions under clause 4.25.4(c);

(k) FDPRCP(f,d) is the Facility Daily Peak Reserve Capacity Price for Demand Side Programme f on Trading Day d;

(l) FMPCP(f,cy) is the Facility Monthly Peak Reserve Capacity Price for Demand Side Programme f in Capacity Year cy;

Explanatory Note

If Peak Capacity Credits are reduced, a Market Participant must pay:

1. an amount equal to the Demand Side Programme Reserve Capacity Security for the reduction in Peak Capacity Credits, less any contribution from refunds already paid in excess of Peak Capacity Payments.
2. in some cases, an amount to offset a reduction in Maximum Peak Facility Refund for the Facility.

The second amount will only be non-zero if the capacity credit reduction results in a new Maximum Peak Facility Refund that is lower than the amount of refunds already paid that have been used to offset forfeits of DSP Reserve Capacity Security in previous periods.

This payment is not part of the settlement equations in section 9.8, as it can be satisfied either by the participant paying it directly to AEMO, or by AEMO drawing upon the DSP Reserve Capacity Security.

When a participant makes a payment under this clause, it will be distributed among Peak Capacity purchasers through the Peak Shared Reserve Capacity Cost.

4.25.4CD. If AEMO reduces Peak Capacity Credits for a Demand Side Programme, the relevant Market Participant must pay to AEMO an amount equal to the sum of the Peak Capacity Reduction Payment and the Peak Capacity Additional Reduction Payment for that Demand Side Programme on that Trading Day.

4.25.4CE. The payment obligation under clause 4.25.4CD may be satisfied by AEMO drawing upon the DSP Reserve Capacity Security for the Demand Side Programme, and applying the amount claimed (after meeting AEMO's costs associated with doing so) so as to:

(a) firstly, offset the cost of funding Supplementary Capacity Contracts for any capacity shortage stemming entirely or in part from the Demand Side Programme not being available; and

(b) secondly, once all costs to which clause 4.25.4CD(a) refers are covered, make a rebate payment to Market Participants in proportion to their Peak Individual Reserve Capacity Requirements during the relevant Trading Day in accordance with Chapter 9.

4.25.4D. A Market Participant may not apply to AEMO for an increase in the number of Peak Capacity Credits for a Facility during a Capacity Year if the Facility has had its Peak Capacity Credits reduced in accordance with clause 4.25.4C for any part of that Capacity Year.

4.25.4E. ~~[Blank]~~A Market Participant may not apply to AEMO for an increase in the number of Flexible Capacity Credits for a Facility during a Capacity Year if the Facility has had its Flexible Capacity Credits reduced in accordance with clause 4.25.4C for any part of that Capacity Year.

4.25.4F. A Market Participant may not offer a Demand Side Programme for Supplementary Capacity if the Demand Side Programme has had its Capacity Credits reduced in accordance with clause 4.25.4C for any part of that Capacity Year.

4.25.4G. A Market Participant may, for a Demand Side Programme that failed a Reserve Capacity Test requested by AEMO under clause 4.25.1C or clause 4.25.2, elect not to subject the relevant Demand Side Programme to a second Reserve Capacity Test in accordance with clause 4.25.3F or clause 4.25.4 by providing notice to AEMO in accordance with clause 4.25.4H.

4.25.4H. A notification provided under clause 4.25.4G must be given to AEMO by 5:00 PM on the second Business Day after receiving notification from AEMO that the relevant Demand Side Programme failed the Reserve Capacity Test requested by AEMO under clause 4.25.1C or clause 4.25.2.

Explanatory Note

The existing 4.25.4I is no longer required, as a DSP must now actively surrender Capacity Credits in order to lose them. The new clause allows a DSP to request as many tests as they like, paying refunds until they pass.

4.25.4I. ~~If a notification is given under clause 4.25.4G in accordance with clause 4.25.4H, AEMO must reduce the Capacity Credits for the relevant Demand Side Programme to the maximum level of reduction achieved in the Reserve Capacity Test conducted in accordance with clause 4.25.2.~~In the event that a Demand Side Programme has failed one or more Reserve Capacity Tests, a Market Participant may request prior to the end of the Capacity Year that AEMO performs a re-test to be conducted for the Facility during the seven days following that request.

4.25.5. In the event that the number of Capacity Credits held by a Market Participant is reduced during a Capacity Year in accordance with clause 4.25.4, then that Market Participant may request once prior to the end of the Capacity Year that AEMO perform a single re-test to be conducted for the Facility, or a Separately Certified Component of the Facility, during the seven days following that request.

4.25.6. If AEMO receives a request for a Reserve Capacity re-test in accordance with clause 4.25.4I or clause 4.25.5, then:

(a) if the re-test relates to a Non-Intermittent Generating System, AEMO must, as applicable:

i. conduct such a re-test in accordance with clauses 4.25.2(a)(ii) or 4.25.2(e)(ii) and, following the re-test, set the number of Peak Capacity Credits held by the relevant Market Participant for the Facility or Separately Certified Component of the Facility to reflect the maximum capabilities achieved in the re-test (after adjusting these results to the equivalent values at a temperature of 41 degrees Celsius and allowing for the capability provided by operation on different types of fuel), but not to exceed the number of Peak Capacity Credits originally confirmed by AEMO for the Facility or Separately Certified Component of the Facility under section 4.20 in respect of the relevant Reserve Capacity Cycle; or

ii. conduct such a re-test in accordance with clauses 4.25.1C(a)(ii) or 4.25.1C(c)(ii) and, following the re-test, set the number of Flexible Capacity Credits held by the relevant Market Participant for the Facility or Separately Certified Component of the Facility to to reflect the maximum capabilities achieved in the re-test, but not to exceed the number of Flexible Capacity Credits originally confirmed by AEMO for the Facility or Separately Certifeid Component under section 4.20 in respect of the relevant Reserve Capacity Cycle;

(b) if the re-test relates to a Demand Side Programme, AEMO must, as applicable:

i. conduct such a re-test in accordance with clause 4.25.2(b)(ii) and, following the re-test, recalculate the Peak DSP Test Shortfall as ~~set~~ the number of Peak Capacity Credits held by the relevant Market Participant for the Facility less ~~to reflect~~ the maximum reduction in its consumption achieved in the re-test~~, but not to exceed the number of Capacity Credits originally confirmed by AEMO for the Facility under clause 4.20.5A(a) in respect of the relevant Reserve Capacity Cycle~~; ~~and~~ or

ii. conduct such a re-test in accordance with clauses 4.25.1C(b) and, following the re-test, recalculate the Flexible DSP Test Shortfall as the number of Flexible Capacity Credits held by the relevant Market Participant for the Facility less the maximum level of reduction achieved in the re-test while still meeting the minimum standards set under clause 4.10.1A(d).; and

(c) if the re-test relates to an Electric Storage Resource, AEMO must, as applicable:

i. conduct such a re-test in accordance with clauses 4.25.2(a)(ii) or 4.25.2(e)(ii) and, following the re-test, set the number of Peak Capacity Credits held by the relevant Market Participant for the Facility or Separately Certified Component of the Facility to reflect the ~~higher~~ average performance achieved over the Peak Electric Storage Resource Obligation Duration in the re-test (after adjusting these results to performance at a temperature of 41 degrees Celsius) but not to exceed the number of Capacity Credits originally confirmed by AEMO for the Facility or Separately Certified Component of the Facility under section 4.20 in respect of the relevant Reserve Capacity Cycle~~.~~;

ii. conduct such a re-test in accordance with clauses 4.25.1C(a)(ii) or 4.25.2(c)(ii) and, following the re-test, set the number of Flexible Capacity Credits held by the relevant Market Participant for the Facility or Separately Certified Component to reflect the maximum capabilities achieved in the re-test, but not to exceed the number of Flexible Capacity Credits originally confirmed by AEMO for the Facility under clause 4.20.5A(a) in respect of the relevant Reserve Capacity Cycle.

4.25.7. [Blank]

4.25.8. [Blank]

4.25.9. In conducting a Reserve Capacity Test, AEMO must:

(a) subject to clauses 4.25.9(b), 4.25.9(c) and 4.25.9(dA), endeavour to conduct the Reserve Capacity Test without warning;

(b) allow sufficient time for the Market Participant to schedule fuel that it is not required under these WEM Rules to be stored on-site;

(c) allow sufficient time for switching a Facility from one fuel to an alternative fuel if operation using the alternative fuel is being tested;

(cA) in the case of a Demand Side Programme and a test under clause 4.25.2(b)(ii), clause 4.25.4 or clause 4.25.6(b)(i), if possible conduct the Reserve Capacity Test under power system conditions similar to those that AEMO expects to apply at times of high demand;

(d) ~~[Blank]~~in the case of a Demand Side Programme and a test under clause 4.25.1C(b), clause 4.25.3F or clause 4.25.6(b)(ii), if possible conduct the Reserve Capacity Test under power system conditions similar to those that AEMO expects to apply at times of high system ramp rates;

(dA) in the case of a Demand Side Programme and a test under clause 4.25.2(b)(ii), clause 4.25.4 or clause 4.25.6(b)(i), give at least two hours' and no more than three hours' notice to allow for arrangements to be made for the Facility to be triggered;

(e) deem the Reserve Capacity Test to be cancelled and discard the results if:

i. the Facility is constrained during the test period because of an outage of an item of equipment that is part of a Network; or

ii. AEMO determines that the Reserve Capacity Test was invalid in accordance with the WEM Procedure referred to in clause 4.25.14;

(f) maintain adequate records of the Reserve Capacity Test to allow independent verification of the test results including the level of Injection or Withdrawal required during the Reserve Capacity Test and the ramp rate required; and

(g) [Blank]

(h) notify the Market Participant of the time that the Reserve Capacity Test must be performed, ~~and~~ the level of output required by the Separately Certified Component or level of Injection or Withdrawal required by the Facility for the Reserve Capacity Test, as applicable, and the ramp rate required.

4.25.10. [Blank]

4.25.11. Every three months AEMO must publish details of:

(a) Facilities that have undergone a Reserve Capacity Test during the preceding three months; and

(b) whether any of those Reserve Capacity Tests were delayed and the reasons for the delay.

4.25.12. AEMO may use the results of Reserve Capacity Tests in respect of a Facility in assigning Certified Reserve Capacity for the Facility for subsequent Reserve Capacity Cycles.

4.25.13. [Blank]

4.25.14. AEMO must document the procedure to be followed in performing Reserve Capacity Tests in a WEM Procedure, including the situations in which AEMO may deem a Reserve Capacity Test to be invalid.

4.25A. Verification Test for a Demand Side Programme

4.25A.1. In each Capacity Year each Market Participant must undertake a Verification Test during the period specified in clause 4.10.1(f)(vi) for each Demand Side Programme registered to the Market Participant. Each test must be conducted in accordance with the WEM Procedure specified in clause 4.25.14 and be carried out:

(a) within 20 Business Days of registration, as notified by AEMO under clause 2.31.6, of the Demand Side Programme, if applicable; or

(b) between 1 October and 30 November.

4.25A.2. To undertake a Verification Test a Market Participant must activate the Demand Side Programme and provide evidence satisfactory to AEMO of the Trading Intervals during which the Verification Test was conducted.

4.25A.3. A Demand Side Programme will be deemed to have failed the Verification Test unless a reduction in demand equal to at least 10% of the Capacity Credits, when measured against the Demand Side Programme's Relevant Demand determined under clause 4.26.2CA, is identified from the Demand Side Programme Load associated with that Demand Side Programme.

4.25A.4. ~~Where~~ If a Demand Side Programme fails a Verification Test AEMO must reduce the Capacity Credits assigned to the Demand Side Programme to zero from the second Trading Day following the Scheduling Day on which AEMO determines that the Verification Test was failed under clause 4.25A.3.

4.25A.5. ~~Where~~ If a Demand Side Programme fails a Verification Test the relevant Market Participant may request that a second Verification Test be undertaken. If the Demand Side Programme:

(a) fails the second Verification Test then the Capacity Credits assigned to the Demand Side Programme are to remain at zero until the end of the relevant Capacity Year; or

(b) does not fail the second Verification Test, from the second Trading Day following the Scheduling Day on which the second Verification Test was performed, the Capacity Credits assigned to the Demand Side Programme are to be increased to the value applied to the Demand Side Programme immediately prior to the first Verification Test.

4.26. Financial Implications of Failure to Satisfy Reserve Capacity Obligations

Explanatory Note

Section 4.26 is amended to include separate refund calculations for Flexible Capacity. This implements outcome 7 from information paper two.

4.26.1. If a Market Participant holding Capacity Credits associated with a Facility fails to comply with its Reserve Capacity Obligations applicable to any given Trading Interval then the Market Participant must pay a refund to AEMO calculated in accordance with the following provisions.

Explanatory Note

Refund rate calculations are amended to reflect that Separately Certified Components can have different Reserve Capacity Prices.

(a) The Peak Trading Interval Refund Rate for a Facility f in the Trading Interval t is determined as follows:

Peak Trading Interval Refund Rate(f,t)=PRF(f,t) × PY(f,t)

where:

i. Peak Trading Interval Refund Rate (f,t) is the Peak Trading Interval Refund Rate for ~~a~~ Facility f in ~~the~~ Trading Interval t;

ii. PRF(f,t) is the Peak Capacity refund factor for ~~a~~ Facility f in ~~the~~ Trading Interval t and is calculated in accordance with clause 4.26.1(c); and

iii. PY(f,t) is the per Trading Interval ~~capacity~~ price for Peak Capacity associated with ~~a~~ Facility f in ~~the~~ Trading Interval t and is determined in accordance with clause 4.26.1(b).

(b) For a Facility f, for which a Market Participant holds Capacity Credits, in the Trading Interval t, PY(f,t) is determined as follows:

i. ~~where~~ if Facility f is not a Registered Facility in Trading Interval t, PY(f,t) equals the Facility Monthly Peak Reserve Capacity Price for the Facility divided by the number of Trading Intervals in the Trading Month in which Trading Interval t falls;

Explanatory Note

Note that if clause 4.26.1(b).ii applies, all Separately Certified Components would have the same Component Monthly Peak Reserve Capacity Price.

ii. ~~where~~ if AEMO has determined that in Trading Interval t Facility f is not in Commercial Operation and is either a Scheduled Facility or Semi-Scheduled Facility:~~, Y(f,t) equals the Facility Monthly Peak Reserve Capacity Price for the Facility divided by the number of Trading Intervals in the Trading Month in which Trading Interval t falls;~~

$$PY(f,t) = \frac{\sum_{scc \in SCC(f,t)} CMPRCP(scc,t) \times PCC(scc,t)}{PCC(f,t) \times TITM(t)}$$

where:

1. SCC(f,t) is the Separately Certified Components of Facility f in Trading Interval t, and scc is a Separately Certified Component within that set;
2. CMPRCP(scc,t) is the Component Monthly Peak Reserve Capacity Price for Separately Certified Component scc in Trading Interval t;
3. PCC(scc,t) is the Peak Capacity Credits associated with Separately Certified Component scc in Trading Interval t;
4. PCC(f,t) is the Peak Capacity Credits associated with Facility f in Trading Interval t;
5. TITM(t) is the number of Trading Intervals in the Trading Month in which Trading Interval t falls;

Explanatory Note

This calculation is amended to allow for changes in the future ESR Duration requirement.

iii. ~~where~~ if AEMO has determined that in Trading Interval t Facility f is in Commercial Operation and is either a Scheduled Facility or Semi-Scheduled Facility, PY(f,t) is defined as:

~~$$Y(f,t) = \frac{CCESR(f,t)}{CC(f,t)} \times \frac{FMRCP(f,t)}{8 \times TDTM(t)} + \frac{CC(f,t) - CCESR(f,t)}{CC(f,t)} \times \frac{FMRCP(f,t)}{TITM(t)}$$~~

~~where:~~

1. ~~CCESR(f,t) is the number of Capacity Credits held by Facility f associated with Separately Certified Components of Facility f which are Electric Storage Resources if Trading Interval t is within the Electric Storage Resource Obligation Intervals for the Trading Day, and 0 otherwise;~~

2. CC(f,t) is the total Capacity Credits held by Facility f in Trading Interval t;

3. FMRCP(f,t) is the Facility Monthly Reserve Capacity Price for Facility f in Trading Interval t;

4. TDTM(t) is the number of Trading Days in the Trading Month in which Trading Interval t falls; and

5. TITM(t) is the number of Trading Intervals in the Trading Month in which Trading Interval t falls;

$$PY(f,t) = \left(\sum_{scc \in ESR(f,t)} \frac{PESROI(scc,t) \times PCC(scc,t)}{PCC(f,t)} \times \frac{CMPRCP(scc,t)}{PESROD(scc,t) \times TDTM(t)} \right) + \left(\sum_{scc \in \overline{ESR(f,t)}} \frac{PCC(scc,t)}{PCC(f,t)} \times \frac{CMPRCP(scc,t)}{TITM(t)} \right)$$

where:

1. scc∈ESR(f,t) refers to all Separately Certified Components scc of Facility f in Trading Interval t that are Electric Storage Resources;

2. PESROI(scc,t) is 1 if Trading Interval t is a Peak Electric Storage Resource Obligation Interval for Separately Certified Component scc and 0 otherwise;

3. PCC(scc,t) is the Peak Capacity Credits associated with Separately Certified Component scc in Trading Interval t;

4. PCC(f,t) is the Peak Capacity Credits associated with Facility f in Trading Interval t;

5. CMPRCP(scc,t) is the Component Monthly Peak Reserve Capacity Price for Separately Certified Component scc in Trading Interval t;

6. PESROD(scc,t) is the number of Trading Intervals in the Peak Electric Storage Resource Obligation Duration for Separately Certified Component scc in the Trading Day containing Trading Interval t;

7. TDTM(t) is the number of Trading Days in the Trading Month in which Trading Interval t falls;

8. scc∈$\overline{ESR(f,t)}$ refers to all Separately Certified Components scc of Facility f in Trading Interval t that are not Electric Storage Resources;

9. TITM(t) is the number of Trading Intervals in the Trading Month in which Trading Interval t falls;

iv. ~~where~~ if Facility f is a Non-Scheduled Facility, PY(f,t) equals the Facility Monthly Peak Reserve Capacity Price for the Facility divided by the number of Trading Intervals in the relevant Trading Month in which Trading Interval t falls; and

v. ~~where~~ if Facility f is a Demand Side Programme, PY(f,t) equals the Facility Monthly Peak Reserve Capacity Price for the Facility divided by the Demand Side Programme Dispatch Requirement ~~400~~.

(c) The Peak Capacity refund factor PRF(f,t) for a Facility f in the Trading Interval t is the lesser of:

i. six; and

ii. the greater of the Peak Capacity dynamic refund factor PRF_dynamic(t) as determined under clause 4.26.1(d) and the minimum Peak Capacity refund factor PRFfloor(f,t) as determined under clauses 4.26.1(f) or 4.26.1(g) as appropriate.

(d) The Peak Capacity dynamic refund factor PRF_dynamic(t) in the Trading Interval t is determined as follows:

$$PRF\_dynamic(t) = 11.75 - \left(\frac{5.75}{750}\right) \times \sum_{f \in F} Spare(f,t)$$

where:

i. F is the set of all Registered Facilities for which Market Participants hold Peak Capacity Credits in the Trading Interval t and f is a Facility within that set; and

ii. Spare(f,t) is the available Peak Capacity ~~capacity~~ related to ~~the~~ Registered Facility f, which is not dispatched in ~~the~~ Trading Interval t determined in accordance with clause 4.26.1(e).

(e) For ~~a~~ Registered Facility f in the Trading Interval t, Spare(f,t) is determined as follows:

i. ~~where~~ if Facility f is a Scheduled Facility, the greater of zero and:

1. the Peak Reserve Capacity Obligation Quantity determined for the Facility f in Trading Interval t; less

2. the Peak Capacity Adjusted Forced Outage Quantity for Facility f in Trading Interval t calculated in 3.21.7B; less

3. the Sent Out Metered Schedule for Facility f in Trading Interval t multiplied by two so as to be a MW quantity;

iA. ~~where~~ if Facility f is a Semi-Scheduled Facility, the greater of zero and:

1. the Peak Reserve Capacity Obligation Quantity determined for Facility f in Trading Interval t; less

2. the Peak Capacity Adjusted Forced Outage Quantity for Facility f in Trading Interval t calculated in 3.21.7B; less

3. the Sent Out Metered Schedule for Facility f in Trading Interval t multiplied by two so as to be a MW quantity;

ii. ~~where~~ if Facility f is a Non-Scheduled Facility, zero; and

iii. ~~where~~ if Facility f is a Demand Side Programme in the Trading Interval t, Spare(f,t) is equal to:

$$\max\{0, \min\left(PRCOQ(f,t), \left(DSP\text{-}Load(f,t) - DSP\text{-}MinLoad(f,t)\right)\right)\}$$

where:

1. [Blank]

2. PRCOQ(f,t) is the Peak Reserve Capacity Obligation for the Demand Side Programme f in the Trading Interval t;

3. DSP-Load(f,t) is the Demand Side Programme Load for the Demand Side Programme f in the Trading Interval t as determined under clause 9.5.4 multiplied by two so as to be a MW quantity; and

4. DSP-MinLoad(f,t) is the sum of the Minimum Consumption of each Associated Load of the Demand Side Programme f in MW in the Trading Interval t.

(f) Subject to clause 4.26.1(g), the minimum refund factor PRF floor(f,t) in the Trading Interval t is determined as follows:

$$PRF\ floor(f,t) = 1 - 0.75 \times Dispatchable(f,t)$$

where:

i. Dispatchable(f,t) for a Facility f in the Trading Interval t is its portion of capacity which is not subject to a Forced Outage for energy over the 4320 previous Trading Intervals pt prior to and including the Trading Interval t, where this is equal to one in the Trading Interval if no Peak Capacity Credits are held by the Facility in any of the 4320 previous Trading Intervals, determined as follows:

$$Dispatchable(f,t) = 1 - \left(\frac{\sum_{pt \in PT} PCAFO(f,pt)}{\sum_{pt \in PT} PCC(f,pt)}\right)$$

where:

1. PT is the set of 4320 Trading Intervals immediately prior to and including the Trading Interval t and pt is a Trading Interval within that set;

2. PCAFO(f,pt) is the Peak Capacity Adjusted Forced Outage Quantity for Facility f in the Trading Interval pt, as determined in accordance with clause 3.21.7B; and

3. PCC(f,pt) is the number of Peak Capacity Credits a Market Participant holds for Facility f in the Trading Interval pt; and

(g) PRF floor(f,t) is equal to one in the Trading Interval t for a Facility f to which any of the following applies:

i. the Facility f is a Demand Side Programme; or

ii. the Facility f is not a Registered Facility or AEMO has deemed the Facility to not be in Commercial Operation in the Trading Interval t.

Explanatory Note

The new Flexible TIRR is zero in the Hot Season, meaning that the Flexible Capacity refund pool is preserved for the expected high-ramp periods.

(h) The Flexible Trading Interval Refund Rate for a Facility f in the Trading Interval t is determined as follows:

Flexible Trading Interval Refund Rate(f,t)=FRF(f,t) × FY(f,t)

where:

i. Flexible Trading Interval Refund Rate (f,t) is the Flexible Trading Interval Refund Rate for Facility f in Trading Interval t;

ii. FRF(f,t) is the Flexible Capacity refund factor for Facility f in Trading Interval t and is calculated in accordance with clause 4.26.1(j); and

iii. FY(f,t) is the per Trading Interval price for Flexible Capacity associated with Facility f in Trading Interval t and is determined in accordance with clause 4.26.1(i);

(i) For a Facility f, for which a Market Participant holds Flexible Capacity Credits, in the Trading Interval t, FY(f,t) is zero if Trading Interval t falls outside the Hot Season, and is otherwise determined as follows:

Explanatory Note

The 12/8 reflects that these refunds only relate to periods outside the hot season, so the payments made over 12 months of the Capacity Year must be related to refunds that only occur in 8 months of the Capacity Year.

i. if Facility f is not a Registered Facility in Trading Interval t FY(f,t) equals $\frac{12}{8}$ multiplied by the Facility Monthly Flexible Reserve Capacity Price for the Facility divided by the number of Trading Intervals in the Trading Month in which Trading Interval t falls;

ii. if AEMO has determined that in Trading Interval t Facility f is not in Commercial Operation and is either a Scheduled Facility or Semi-Scheduled Facility:

$$FY(f,t) = \frac{12}{8} \times \frac{\sum_{scc \in SCC(f,t)} CMFRCP(scc,t) \times FCC(scc,t)}{FCC(f,t) \times TITM(t)}$$

where:

1. SCC(f,t) is the Separately Certified Components of Facility f in Trading Interval t, and scc is a Separately Certified Component within that set;
2. CMFRCP(scc,t) is the Component Monthly Flexible Reserve Capacity Price for Separately Certified Component scc in Trading Interval t;
3. FCC(scc,t) is the Flexible Capacity Credits associated with Separately Certified Component scc in Trading Interval t;
4. FCC(f,t) is the Flexible Capacity Credits associated with Facility f in Trading Interval t;
5. TITM(t) is the number of Trading Intervals in the Trading Month in which Trading Interval t falls;

Explanatory Note

As for the peak calculations, the refund price must account for ESR FRCOQs being restricted to the FESROIs.

iii. if AEMO has determined that in Trading Interval t Facility f is in Commercial Operation and is either a Scheduled Facility or Semi-Scheduled Facility, FY(f,t) is defined as:

$$FY(f,t) = \frac{12}{8} \times \left(\left(\sum_{scc \in ESR(f,t)} \frac{FESROI(t) \times FCC(scc,t)}{FCC(f,t)} \times \frac{CMFRCP(scc,t)}{FCOD(t) \times TDTM(t)} \right) + \left(\sum_{scc \in ESR(f,t)} \frac{FCC(scc,t)}{FCC(f,t)} \times \frac{CMFRCP(scc,t)}{TITM(t)} \right) \right)$$

where:

1. 12/8 is the number of months in a year divided by the number of months outside the hot season;
2. scc∈ESR(f,t) refers to all Separately Certified Components scc of Facility f in Trading Interval t which are Electric Storage Resources;
3. FESROI(t) is 1 if Trading Interval t is a Flexible Electric Storage Resource Obligation Interval and 0 otherwise;
4. FCC(scc,t) is the Flexible Capacity Credits associated with Separately Certified Component scc in Trading Interval t;

5. FCC(f,t) is the total Flexible Capacity Credits held by Facility f in Trading Interval t;

6. CMFRCP(scc,t) is the Component Monthly Flexible Reserve Capacity Price for Separately Certified Component scc in Trading Interval t;

7. FCOD(t) is the number of Trading Intervals in the Flexible Capacity Obligation Duration in the Trading Day containing Trading Interval t;

8. TDTM(t) is the number of Trading Days in the Trading Month in which Trading Interval t falls;

9. $scc \in \overline{ESR(f,t)}$ refers to all Separately Certified Components scc of Facility f in Trading Interval t that are not Electric Storage Resources;

10. TITM(t) is the number of Trading Intervals in the Trading Month in which Trading Interval t falls; and

iv. if Facility f is a Demand Side Programme, FY(f,t) equals the Facility Monthly Flexible Reserve Capacity Price for the Facility divided by the Demand Side Programme Dispatch Requirement;

(j) The Flexible Capacity refund factor FRF(f,t) for a Facility f in the Trading Interval t is the lesser of:

i. six; and

ii. the greater of the Flexible Capacity dynamic refund factor FRF_dynamic(t) as determined under clause 4.26.1(k) and one.

Explanatory Note

The dynamic refund factor for flexible capacity will be:

- 1 when the hourly ramp rate is 1/2 of the hourly rate used to set the RCR;
- 2 when the hourly ramp rate is the same as the hourly rate used to set the RCR;
- >2 when the hourly ramp rate is greater than the hourly rate used to set the RCR.
- 6 when the hourly ramp rate is three times the hourly rate used to set the RCR.

The rate is capped at 6 and floored at 1.

(k) The Flexible Capacity dynamic refund factor FRF_dynamic(t) in the Trading Interval t is determined as follows:

$$FRF\_dynamic(t) = 2 \times \frac{2 \times (OD(t) - OD(t-1))}{0.25 \times EHFHDI}$$

where:

i. OD(t) is the Operational Demand for Trading Interval t; and

ii. EHFHDI is the expected highest Four-Hour Demand Increase determined under clause 4.5.10(bA)(ii).

4.26.1A. AEMO must calculate the Peak Reserve Capacity Deficit refund for each Facility f, for which a Market Participant holds Peak Capacity Credits, ("**Peak Facility Reserve Capacity Deficit Refund**") in each Trading Interval t as the lesser of:

(a) the product of:

i. the Peak Trading Interval Refund Rate, calculated under clause 4.26.1(a), applicable to Facility f in Trading Interval t; and

ii. the Peak Reserve Capacity Deficit for Facility f in Trading Interval t, where the Peak Reserve Capacity Deficit for Facility f in Trading Interval t is equal to whichever of the following applies:

1. if Facility f is not a Registered Facility then the number of Peak Capacity Credits associated with Facility f in Trading Interval t;

2. if Facility f is considered by AEMO to have not been in Commercial Operation in Trading Interval t and is either a Scheduled Facility, a Semi-Scheduled Facility or a Non-Scheduled Facility, the number of Peak Capacity Credits associated with Facility f;

3. if Facility f is considered by AEMO to have been in Commercial Operation in Trading Interval t and is either a Scheduled Facility or a Semi-Scheduled Facility:

$$\min(PCCIG(f,t), \max(0, \min(RL(f,t) - 2 \times MAX2(f,t), RL(f,t) - A(f,t)))) + PRTMRCD(f,t)$$

where:

i. PCCIG(f,t) is the number of Peak Capacity Credits held for Facility f associated with Separately Certified Components of Facility f which are Intermittent Generating Systems of the Facility in Trading Interval t;

ii. RL(f,t) is the Required Level for Facility f, adjusted to 100 percent of the level of Peak Capacity Credits held for Facility f in Trading Interval t;

iii. MAX2(f,t) is the second highest value of the output for Facility f (in MWh) achieved for a Trading Interval during the Trading Day in which Trading Interval t falls, as measured in Meter Data Submissions received by AEMO in accordance with section 8.4, that has been achieved since the date AEMO determined the Facility

to be in Commercial Operation up to the relevant Trading Day, where this value must be set equal to or greater than the Max2 applied by AEMO for the previous Trading Day;

iv. A(f,t) is the level of output (in MW) detailed in the most recent report provided prior to Trading Interval t by the Market Participant for Facility f under clause 4.13.10C; and

v. PRTMRCD(f,t) is the Peak Real-Time Market Reserve Capacity Deficit determined for Facility f in Trading Interval t under clause 4.26.1B;

4. if Facility f is considered by AEMO to have been in Commercial Operation in Trading Interval t and is a Non-Scheduled Facility:

$$\min(PCC(f,t), \max(0, \min(RL(f,t) - 2 \times MAX2(f,t), RL(f,t) - A(f,t))))$$

where:

i. PCC(f,t) is the number of Peak Capacity Credits held for Facility f in Trading Interval t;

ii. RL(f,t) is the Required Level for Facility f, adjusted to 100 percent of the level of Peak Capacity Credits held for Facility f in Trading Interval t;

iii. MAX2(f,t) is the second highest value of the output for Facility f (in MWh) achieved for a Trading Interval during the Trading Day in which Trading Interval t falls, as measured in Meter Data Submissions received by AEMO in accordance with section 8.4, that has been achieved since the date AEMO determined the Facility to be in Commercial Operation up to the relevant Trading Day, where this value must be set equal to or greater than the Max2 applied by AEMO for the previous Trading Day; and

iv. A(f,t) is the level of output (in MW) detailed in the most recent report provided prior to Trading Interval t by the Market Participant for Facility f under clause 4.13.10C; and

Explanatory Note

The addition of the term PDSPTS(f,t) implements the DSP refunds for test failure.

The replacement of RD with DSPLoad means that DSP shortfalls are measured using actual demand rather than the assessed Relevant Demand.

5. if Facility f is a Demand Side Programme, the capacity shortfall calculated as:

   max (0, PDSPTS(f,t), PRCOQ(f,t) − max(0, (~~RD~~DSPLoad(f,t) − DSPMinLoad(f,t))))

   where:

   i. PRCOQ(f,t) is the Peak Reserve Capacity Obligation Quantity determined for Facility f in Trading Interval t;

   ii. PDSPTS(f,t) is the Peak DSP Test Shortfall determined by AEMO under clause 4.25.3D, clause 4.25.4(b) or clause 4.25.6(b)(i);~~RD is the Relevant Demand for Facility f in Trading Interval t as determined in accordance with clause 4.26.2CA; and~~

   iii. DSPLoad(f,t) is the Demand Side Programme Load for the Demand Side Programme f in the Trading Interval t as determined under clause 9.5.4; and

   ~~iii~~iv. DSPMinLoad is the sum of the MW quantities of Minimum Consumption for Facility f's Associated Loads in Trading Interval t; and

(b) the Maximum Peak Facility Refund for the Facility in the relevant Capacity Year, less all Peak Facility Reserve Capacity Deficit Refunds applicable to the Facility in previous Trading Intervals falling in the same Capacity Year.

4.26.1B. AEMO must calculate the Peak Real-Time Market Reserve Capacity Deficit for each Scheduled Facility or Semi-Scheduled Facility f for each Trading Interval t in which AEMO considers the Facility to have been in Commercial Operation as:

$$PRTMRCD(f,t) = min(PRCOQ(f,t), PCAFO(f,t) + PNISCRQ(f,t) + PESRCSF(f,t) + PRTMOSF(f,t)) + PNIMGRPPO(f,t) + PESRRPPO(f,t)$$

where:

(a) PRCOQ(f,t) is the Peak Reserve Capacity Obligation Quantity determined for Facility f in Trading Interval t;

(b) PCAFO(f,t) is the Peak Capacity Adjusted Forced Outage Quantity determined for Facility f in Trading Interval t under clause 3.21.7B;

(c) PNISCRQ(f,t) is the Peak Not In-Service Capacity Refund Quantity determined for Facility f in Trading Interval t under clause 4.26.1D;

(d) PESRCSF(f,t) is the Peak ESR Charge Shortfall determined for Facility f in Trading Interval t under clause 4.26.1E;

(e) PRTMOSF(f,t) is the Peak Real-Time Market Offer Shortfall determined for Facility f in Trading Interval t under clause 4.26.1G;

(f) PNIMGRPPO(f,t) is the total Peak Refund Payable Planned Outage Quantity determined for Separately Certified Components of Facility f which are Non-Intermittent Generating Systems in Trading Interval t under clause 4.26.1C; and

(g) PESRRPPO(f,t) is the total Peak Refund Payable Planned Outage Quantity determined for Separately Certified Components of Facility f which are Electric Storage Resources in Trading Interval t under clause 4.26.1CA.

4.26.1C. If the Peak Capacity Adjusted Planned Outage Quantity in a Trading Interval for a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility which is a Non-Intermittent Generating System is greater than zero, then AEMO must determine that Peak Capacity Adjusted Planned Outage Quantity to be:

(a) if the Peak Refund Exempt Planned Outage Count for the Separately Certified Component, calculated over the 1000 Trading Days preceding the Trading Day in which the Trading Interval falls, is less than 8400, a Peak Refund Exempt Planned Outage Quantity; or

(b) otherwise, a Peak Refund Payable Planned Outage Quantity.

4.26.1CA. If the Peak Capacity Adjusted Planned Outage Quantity in a Trading Interval for a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility which is an Electric Storage Resource is greater than zero, then AEMO must determine that Peak Capacity Adjusted Planned Outage Quantity to be:

(a) if the Peak Refund Exempt Planned Outage Count for the Separately Certified Component, calculated over the 1000 Trading Days preceding the Trading Day in which the Trading Interval falls, is less than 1400, a Peak Refund Exempt Planned Outage Quantity; or

(b) otherwise, a Peak Refund Payable Planned Outage Quantity.

4.26.1D. AEMO must calculate the Peak Not In-Service Capacity Refund Quantity for each Scheduled Facility or Semi-Scheduled Facility f for each Trading Interval t in which AEMO considers the Facility to have been in Commercial Operation as:

$$NISCRQ(f,t) = \frac{\sum_{DI \in t}(\min(PRCOQ(f,DI) - PCAFO(f,DI),\ NISCap(f,DI)))}{6}$$

where:

(a) PRCOQ(f,DI) is the Peak Reserve Capacity Obligation Quantity determined for Facility f in Dispatch Interval DI;

(b) PCAFO(f,DI) is the Peak Capacity Adjusted Forced Outage Quantity determined for Facility f in Dispatch Interval DI under clause 3.21.7C;

(c) NISCap(f,DI) is the Not In-Service Capacity quantity determined for Facility f in Dispatch Interval DI under clause 7.13A.1; and

(d) DI∈t denotes all Dispatch Intervals DI in Trading Interval t.

4.26.1E. AEMO must calculate the Peak ESR Charge Shortfall for each Scheduled Facility or Semi-Scheduled Facility f for each Trading Interval t in which AEMO considers the Facility to have been in Commercial Operation as:

$$\text{PESRChargeShortfall(f,t)} = \frac{\sum_{DI \in t} \sum_{c \in f} \text{PESRCSF(c,DI)}}{6}$$

where:

(a) PESRCSF(c,DI) is the capacity shortfall in MW determined for Separately Certified Component c in Dispatch Interval DI under clause 4.26.1F;

(b) DI∈t denotes all Dispatch Intervals DI in Trading Interval t; and

(c) c∈f denotes all Separately Certified Components c of Facility f that are Electric Storage Resources.

4.26.1F. PESRCSF(c,DI) for Separately Certified Component c (which is an Electric Storage Resource) for Dispatch Interval DI is:

$$\text{PESRCSF(c,DI)} = max(0, PRCOQ(c,DI) - PCAFO(c,DI) - 12 \times \max(0, ChargeLevel(c,DI) - MinChargeLevel(c,DI)))$$

where:

(a) PRCOQ(c,DI) is the Peak Reserve Capacity Obligation Quantity determined for Separately Certified Component c in Dispatch Interval DI;

(b) PCAFO(c,DI) is the Peak Capacity Adjusted Forced Outage Quantity determined for Separately Certified Component c in Dispatch Interval DI under clause 3.21.7;

(c) ChargeLevel(c,DI) is the Charge Level in MWh, or alternative estimate from AEMO ~~where~~ if the Charge Level is not available, of Separately Certified Component c determined at the start of Dispatch Interval DI; and

(d) MinChargeLevel(c,DI) is the minimum Charge Level capability in MWh as specified in Standing Data for Separately Certified Component c in Dispatch Interval DI.

4.26.1G. AEMO must determine the shortfall in Peak Capacity ~~Reserve Capacity~~ offered into the Real-Time Market ("Peak Real-Time Market Offer Shortfall") for each Scheduled Facility or Semi-Scheduled Facility f for each Trading Interval t in which AEMO considers the Facility to have been in Commercial Operation as:

$$PRTMOSF(f,t) = max\left(0, \frac{\sum_{DI \in t} \text{PRTMOSF(f,DI)}}{6} - PCAFO(f,t) - PNISCRQ(f,t) - PESRCSF(f,t)\right)$$

where:

(a) PRTMOSF(f,DI) is the shortfall in Peak Capacity ~~Reserve Capacity~~ offered into the Real-Time Market determined for Facility f in Dispatch Interval DI under clause 4.26.1H;

(b) PCAFO(f,t) is the Peak Capacity Adjusted Forced Outage Quantity determined for Facility f in Trading Interval t under clause 3.21.7B;

(c) PNISCRQ(f,t) is the Not In-Service Capacity Refund Quantity determined for Facility f in Trading Interval t under clause 4.26.1D; and

(d) PESRCSF(f,t) is the ESR Charge Shortfall determined for Facility f in Trading Interval t under clause 4.26.1E.

4.26.1H. PRTMOSF(f,DI) for Facility f in Dispatch Interval DI is:

$$PRTMOSF(f,DI) = max(0, PRCOQ(f,DI) - OfferAvail(f,DI))$$

where:

(a) PRCOQ(f,DI) is the Peak Reserve Capacity Obligation Quantity determined for Facility f in Dispatch Interval DI; and

(b) OfferAvail(f,DI) is the total MW quantity included in Real-Time Market Offers for energy from Facility f in Dispatch Interval DI (whether offered as Available Capacity or In-Service Capacity) that were used to calculate Dispatch Instructions and Market Clearing Prices for that Dispatch Interval.

4.26.1I. AEMO must calculate the Peak Generation Reserve Capacity Deficit Refund for each Market Participant for each Trading Interval as the sum of the Peak Facility Reserve Capacity Deficit Refunds for the Trading Interval for each Facility with a Facility Class (or, for an unregistered Facility, an indicative Facility Class) of Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility, for which the Market Participant holds Peak Capacity Credits in the Trading Interval.

4.26.1J. ~~Where~~ If a Scheduled Facility or a Semi-Scheduled Facility that has a Peak Reserve Capacity Obligation Quantity greater than zero for a Dispatch Interval:

(a) has been issued a Dispatch Target or a Dispatch Cap less than or equal to its Peak Reserve Capacity Obligation Quantity and did not Inject at a level of the Dispatch Cap or Dispatch Target during the Dispatch Interval; or

(b) has been issued a Dispatch Target or a Dispatch Cap greater than its Peak Reserve Capacity Obligation Quantity and did not Inject at least at a level of the Peak Reserve Capacity Obligation Quantity during the Dispatch Interval,

the Market Participant for the Facility must, as soon as practicable at the end of the Dispatch Interval, or in any event, within 24 hours of the end of the Dispatch Interval, submit a Forced Outage for the energy Outage Capability in accordance with the WEM Procedure specified in clause 3.21.10.

4.26.2. ~~[Blank]~~If a Scheduled Facility or a Semi-Scheduled Facility that has a Flexible Reserve Capacity Obligation Quantity greater than zero for a Dispatch Interval:

(a) has been issued a Dispatch Target or a Dispatch Cap less than or equal to its Flexible Reserve Capacity Obligation Quantity and did not Inject at a level of the Dispatch Cap or Dispatch Target during the Dispatch Interval; or

(b) has been issued a Dispatch Target or a Dispatch Cap greater than its Flexible Reserve Capacity Obligation Quantity and did not Inject at least at a level of the Flexible Reserve Capacity Obligation Quantity during the Dispatch Interval,

the Market Participant for the Facility must, as soon as practicable at the end of the Dispatch Interval, or in any event, within 24 hours of the end of the Dispatch Interval, submit a Forced Outage for the Flexible Capacity Outage Capability in accordance with the WEM Procedure specified in clause 3.21.10.

4.26.2A. [Blank]

Explanatory Note

The Net STEM Shortfall is relevant only for Peak Capacity, not for Flexible Capacity.

4.26.2AA. AEMO must determine the net STEM shortfall ("Net STEM Shortfall") in Reserve Capacity supplied by each Market Participant p holding Peak Capacity Credits for one or more Scheduled Facilities, Semi-Scheduled Facilities or Non-Scheduled Facilities in each Trading Interval t as:

$$\mathrm{STEMSF(p,t)} = \max(0, \mathrm{STEMREQ(p,t)} - \mathrm{CAPASTEM(p,t)} - \mathrm{RTCR(p,t)})$$

where:

(a) STEMREQ(p,t) is determined for Market Participant p in Trading Interval t under clause 4.26.2AB;

(b) CAPASTEM(p,t) is determined for Market Participant p in Trading Interval t under clause 4.26.2AE; and

(c) RTCR(p,t) is determined for Market Participant p in Trading Interval t under clause 4.26.2AH.

4.26.2AB. STEMREQ(p,t) for Market Participant p in Trading Interval t is:

$$\mathrm{STEMREQ(p,t)} = \frac{\sum_{\mathrm{DI}\in\mathrm{t}} \mathrm{STEMREQ(p,DI)}}{6}$$

where:

(a) STEMREQ(p,DI) is determined for Market Participant p in Dispatch Interval DI under clause 4.26.2AC; and

(b) DI∈t denotes all Dispatch Intervals DI in Trading Interval t.

4.26.2AC. STEMREQ(p,DI) for Market Participant p in Dispatch Interval DI is:

$$STEMREQ(p,DI) = \sum_{f \in SFFacilities(p,DI)} STEMFREQ(f,DI)$$

where:

(a) STEMFREQ(f,DI) is determined for Facility f in Dispatch Interval DI under clause 4.26.2AD; and

(b) f∈SFFacilities(p,DI) denotes all Scheduled Facilities and Semi-Scheduled Facilities for which Market Participant p holds Peak Capacity Credits in Dispatch Interval DI and which AEMO considers to be in Commercial Operation in Dispatch Interval DI.

4.26.2AD. STEMFREQ(f,DI) for Facility f in Dispatch Interval DI is:

$$\mathrm{STEMFREQ(f,DI)} = \mathrm{STEMPRCOQ(f,DI)} - \mathrm{Max(0,STEMPCAFO(f,DI)} - \mathrm{PCAFO(f,DI))}$$

where:

(a) STEMPRCOQ(f,DI) is the STEM Peak Reserve Capacity Obligation Quantity determined for Facility f in Dispatch Interval DI;

(b) STEMPCAFO(f,DI) is the estimate of the Peak Capacity Adjusted Forced Outage Quantity for Facility f in Dispatch Interval DI determined on the Scheduling Day for the relevant Trading Day under clause 6.3A.3(g); and

(c) PCAFO(f,DI) is the Peak Capacity Adjusted Forced Outage Quantity determined for Facility f in Dispatch Interval DI under clause 3.21.7C.

4.26.2AE. CAPASTEM(p,t) for Market Participant p in Trading Interval t is:

(a) ~~where~~ if the STEM Auction has been suspended by AEMO in accordance with section 6.10 or where STEMREQ(p,t)=0:

$$CAPASTEM(p,t) = STEMREQ(p,t)$$

(b) otherwise:

$$\mathrm{CAPASTEM(p,t)} = \left(\frac{\mathrm{NCP(p,t)} + \mathrm{UnclearedSTEMOffers(p,t)} + \mathrm{ClearedSTEMBids(p,t)}}{\mathrm{LF(p,t)} \times \frac{30}{60}} \right)$$

where:

i. STEMREQ(p,t) is determined for Market Participant p in Trading Interval t under clause 4.26.2AB;

ii. NCP(p,t) is Market Participant p's Net Contract Position for Trading Interval t in MWh;

iii. UnclearedSTEMOffers(p,t) is the total MWh quantity covered by the STEM Offers which were not scheduled in the relevant STEM Auction, determined by AEMO for Market Participant p under section 6.9 for Trading Interval t;

iv. ClearedSTEMBids(p,t) is the total MWh quantity covered by the STEM Bids which were scheduled in the relevant STEM Auction, determined by AEMO for Market Participant p under section 6.9 for Trading Interval t; and

v. LF(p,t) is determined for Market Participant p in Trading Interval t under clause 4.26.2AF.

4.26.2AF. LF(p,t) for Market Participant p for Trading Interval t is:

$$LF(p,t)=\frac{\sum_{DI\in t} LF(p,DI)}{6}$$

where:

(a) LF(p,DI) is the capacity obligation weighted average of the Loss Factors for Market Participant p's Scheduled Facilities and Semi-Scheduled Facilities in Dispatch Interval DI determined under clause 4.26.2AG; and

(b) DI∈t denotes all Dispatch Intervals in Trading Interval t.

4.26.2AG. LF(p,DI) for Market Participant p in Dispatch Interval DI is:

$$\mathrm{LF(p,DI)} = \frac{\sum_{\mathrm{f\in SFFacilities(p,DI)}}(\mathrm{LossFactor(f,DI)x\ STEMPRCOQ(f,DI)})}{\sum_{\mathrm{f\in SFFacilities(p,DI)}} \mathrm{STEMPRCOQ(f,DI)}}$$

where:

(a) LossFactor(f,DI) is the Loss Factor for Facility f in Dispatch Interval DI;

(b) STEMPRCOQ(f,DI) is the STEM Peak Reserve Capacity Obligation Quantity determined for Facility f in Dispatch Interval DI; and

(c) f∈SFFacilities(p,DI) denotes all Scheduled Facilities and Semi-Scheduled Facilities for which Market Participant p holds Peak Capacity Credits in Dispatch Interval DI and which AEMO considers to be in Commercial Operation in Dispatch Interval DI.

4.26.2AH. RTCR(p,t) for Market Participant p in Trading Interval t is:

$$RTCR(p,t) = \sum_{f\in SFFacilities(p,t)} (PCAFO(f,t) + NISCRQ(f,t) + PESRCSF(f,t) + PRTMOSF(f,t) + \max(0, PNIMGRPPO(f,t) + PESRRPPO(f,t) - STEMPCAPO(f,t)))$$

where:

(a) PCAFO(f,t) is the Peak Capacity Adjusted Forced Outage Quantity determined for Facility f in Trading Interval t under clause 3.21.7B;

(b) NISCRQ(f,t) is the Not In-Service Capacity Refund Quantity determined for Facility f in Trading Interval t under clause 4.26.1D;

(c) PESRCSF(f,t) is the Peak ESR Charge Shortfall determined for Facility f in Trading Interval t under clause 4.26.1E;

(d) PRTMOSF(f,t) is the Peak Real-Time Market Offer Shortfall determined for Facility f in Trading Interval t under clause 4.26.1G;

(e) PNIMGRPPO(f,t) is the total Refund Payable Planned Outage Quantity determined for Separately Certified Components of Facility f which are Non-Intermittent Generating Systems in Trading Interval t under clause 4.26.1C;

(f) PESRRPPO(f,t) is the total Peak Refund Payable Planned Outage Quantity determined for Separately Certified Components of Facility f which are Electric Storage Resources in Trading Interval t under clause 4.26.1CA;

(g) STEMPCAPO(f,t) is the estimate of the Peak Capacity Adjusted Planned Outage Quantity for Facility f in Trading Interval t determined on the Scheduling Day for the relevant Trading Day under clause 6.3A.3(g); and

(h) f∈SFFacilities(p,t) denotes all Scheduled Facilities and Semi-Scheduled Facilities for which Market Participant p holds Peak Capacity Credits in Trading Interval t and which AEMO considers to be in Commercial Operation in Trading Interval t.

4.26.2B. [Blank]

4.26.2C. [Blank]

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

(a) ~~a value determined for the Demand Side Programme using the methodology set out in Appendix 10~~if the Demand Side Programme has at least two Associated Loads, the value nominated for the Demand Side Programme under clause 4.10.1(f)(iA) plus the sum of the Minimum Consumption of the Demand Side Programme's Associated Loads; and

(b) if the Demand Side Programme has a single Associated Load, the ~~sum of~~ Peak Individual Reserve Capacity Requirement Contribution~~s~~ of the Associated Load~~s of the Demand Side Programme~~ for ~~the Trading Month in which~~ Trading Day d ~~falls~~.

Explanatory Note

Demand Side Programmes will no longer make Consumption Deviation Applications. This implements part of review outcome 3 from information paper two.

~~4.26.2CB. For the purposes of step 2(c) of Appendix 10:~~

~~(a) a Market Participant may submit a Consumption Deviation Application to AEMO in accordance with the WEM Procedure referred to in clause 4.26.2CE, in respect of an Associated Load for the previous Capacity Year, if:~~

~~i. the level of consumption of the Associated Load was affected in a Trading Interval; and~~

ii. the Market Participant considers that the deviation in the level of consumption was due to:

1. a request received from AEMO; or

2. a maintenance event; and

(b) AEMO must accept or reject a Consumption Deviation Application submitted under clause 4.26.2CB(a) by the time specified in clause 4.26.2CG.

4.26.2CC. AEMO may charge an Application Fee to cover its costs of requesting clarification or further information of any aspect of a Consumption Deviation Application in accordance with clause 4.26.2CF.

4.26.2CD. A Consumption Deviation Application submitted under clause 4.26.2CB(a) must:

(a) subject to clause 4.26.2CH, be submitted as soon as practicable but, in any event, on or before 31 October in the Capacity Year to which the Relevant Demand applies; and

(b) contain, or be accompanied by, the information specified in the WEM Procedure referred to in clause 4.26.2CE.

4.26.2CE. AEMO must specify the following matters in a WEM Procedure:

(a) the process that a Market Participant must follow when submitting a Consumption Deviation Application for an Associated Load under clause 4.26.2CB(a);

(b) the information and supporting evidence that a Market Participant must provide in its Consumption Deviation Application submitted under clause 4.26.2CB(a);

(c) the process that AEMO must follow when it receives a Consumption Deviation Application submitted under clause 4.26.2CB(a);

(d) the criteria that AEMO must consider when deciding whether to accept or reject a Consumption Deviation Application submitted under clause 4.26.2CB(a); and

(e) for the purposes of step 2(c) of Appendix 10, the process that AEMO must follow when estimating what the consumption of an Associated Load would have been if it had not been affected by the matters set out in the Consumption Deviation Application.

4.26.2CF. If it considers it reasonably necessary to assess the Consumption Deviation Application, AEMO may request clarification or further information of any aspect of the Consumption Deviation Application submitted under clause 4.26.2CB(a). Any clarification or information received is deemed to be part of the Consumption Deviation Application.

~~4.26.2CG. AEMO must accept or reject a Consumption Deviation Application submitted by a Market Participant in accordance with clause 4.26.2CB(a) within 10 Business Days of the later of:~~

~~(a) receipt of the Consumption Deviation Application; and~~

~~(b) receipt of any clarification or information provided under clause 4.26.2CF.~~

~~4.26.2CH. A Consumption Deviation Application for a Load that was first associated with a Demand Side Programme under clause 2.29.5G, for the Market Participant submitting the Consumption Deviation Application, after the date referred to in clause 4.26.2CD, must be submitted on or before the date which is 30 days from commencement of the Association Period for that Associated Load.~~

4.26.2D. AEMO must determine the capacity shortfall in Peak Capacity ~~Reserve Capacity~~ ("**Peak Capacity Shortfall**") supplied by each Market Participant holding Peak Capacity Credits associated with a Demand Side Programme f in each Trading Interval t relative to its Peak Reserve Capacity Obligation Quantity as:

(a) ~~where~~ if AEMO has issued a Dispatch Instruction with a non-zero MW quantity under section 7.6 to the Demand Side Programme f for the Trading Interval:

max(0, min(PRCOQ(f,t), DIMW(f,t)) – max (0, RD(f,t) – DSPLMW(f,t)))

where:

PRCOQ(f,t) is the Peak Reserve Capacity Obligation Quantity of the Demand Side Programme f for Trading Interval t (in MW);

DIMW(f,t) is the quantity by which the Demand Side Programme f was instructed by AEMO to curtail the absolute value of its Withdrawal in Trading Interval t as specified by AEMO in accordance with clause 7.13.5;

RD(f,t) is the Relevant Demand of the Demand Side Programme f for the Trading Day the Trading Interval t falls on, determined by AEMO in accordance with clause 4.26.2CA; and

DSPLMW(f,t) is the Demand Side Programme Load of the Demand Side Programme f in Trading Interval t, multiplied by two to convert to units of MW; and

(b) zero, ~~where~~ if AEMO has issued a Dispatch Instruction with a zero MW quantity under section 7.6 to the Demand Side Programme f for Trading Interval t.

4.26.2E. For each Market Participant holding Capacity Credits, AEMO must determine the amount of the refund ("**Peak Capacity Cost Refund**") to be applied for Trading Day d as the sum of the Peak Trading Interval Capacity Cost Refunds of every Trading Interval in the Trading Day d, as calculated in accordance with clause 4.26.2F.

4.26.2F. The Peak Trading Interval Capacity Cost Refund for Market Participant p and Trading Interval t is the sum of:

(a) either:

i. ~~where~~ if Market Participant p holds Peak Capacity Credits associated with an Energy Producing System, the Peak Generation Capacity Cost Refund for Market Participant p for Trading Interval t, determined in accordance with clause 4.26.3; or

ii. zero, otherwise; ~~and~~

(b) the sum of the Peak Demand Side Programme Capacity Cost Refunds for Trading Interval t for each Facility with a Facility Class (or, for an unregistered Facility, an indicative Facility Class) of Demand Side Programme for which Market Participant p holds Peak Capacity Credits in Trading Interval t.

4.26.3. The Peak Generation Capacity Cost Refund for Trading Interval t in Capacity Year y for a Market Participant p holding Peak Capacity Credits associated with an Energy Producing System is the lesser of:

(a) the Maximum Peak Participant Generation Refund determined for Market Participant p and Capacity Year y less all Peak Generation Capacity Cost Refunds applicable to Market Participant p in previous Trading Intervals ~~t~~ falling in Capacity Year y; and

(b) the Peak Generation Reserve Capacity Deficit Refund for Market Participant p and Trading Interval t, plus the Net STEM Refund in Trading Interval t for Market Participant p, where the Net STEM Refund is calculated as follows:

$$\text{N STEM Refund}(p,t) = \text{PTIRR weighted}(p,t) \times \text{N STEM Short}(p,t)$$

where:

i. N STEM Refund(p, t) is the Net STEM Refund for Market Participant p in Trading Interval t;

ii. PTIRR weighted(p, t) is the weighted average of the Peak Trading Interval Refund Rate in Trading Interval t for each Registered Facility that Market Participant p holds Peak Capacity Credits for and is calculated as follows:

$$\text{PTIRR weighted}(p,t) = \sum_{f \epsilon F} \frac{\text{PTIRR}(f,t) \times \text{PCC}(f,t)}{\sum_{f \epsilon F} \text{PCC}\,(f,t)}$$

where:

1. F denotes the set of all Registered Facilities registered to Market Participant p in Trading Interval t, for which Market Participant p holds Capacity Credits in Trading Interval t, excluding Demand Side Programmes and f is a Facility within that set;

2. PTIRR(f, t) is the Peak Trading Interval Refund Rate for Facility f in Trading Interval t; and

3. PCC(f,t) is the number of Peak Capacity Credits associated with Facility f in Trading Interval t; and

iii. N STEM Short(p, t) is the Net STEM Shortfall for Market Participant p in Trading Interval t.

4.26.3A. The Peak Demand Side Programme Capacity Cost Refund for Trading Interval t for a Facility f with a Facility Class (or, for an unregistered Facility, an indicative Facility Class) of Demand Side Programme is equal to the lesser of:

(a) the Maximum Peak Facility Refund for Facility f in the Capacity Year the Trading Interval t falls in, less all Peak Demand Side Programme Capacity Cost Refunds applicable to the Facility in previous Trading Intervals falling in the same Capacity Year; and

(b) the sum of:

i. either:

1. if Facility f is a Registered Facility:

$$\text{PTIRR}(f,t) \times S$$

where:

PCS is the Peak Capacity Shortfall in MW for Facility f determined in accordance with clause 4.26.2D in Trading Interval t, and

PTIRR(f,t) is the Peak Trading Interval Refund Rate for Facility f in Trading Interval t; or

2. otherwise, zero; and

ii. the Peak Facility Reserve Capacity Deficit Refund for Trading Interval t for Facility f, determined in accordance with clause 4.26.1A.

Explanatory Note

Clauses 4.26.4/5/6 are no longer required, as refunds will be rebated to consumers rather than capacity providers. This implements part of outcome 7 from information paper two.

~~4.26.4. For each Market Participant holding Capacity Credits associated with a Scheduled Facility, Semi Scheduled Facility or a Demand Side Programme, AEMO must determine the amount of the rebate ("**Participant Capacity Rebate**") to be applied for Trading Interval t as the sum of all Facility Capacity Rebates determined in accordance with clause 4.26.6.~~

~~4.26.5. [Blank]~~

4.26.6. The Facility Capacity Rebate in Trading Interval t for Facility f, being a Scheduled Facility, Semi-Scheduled Facility or a Demand Side Programme for which a Market Participant holds Capacity Credits:

$$FCR(f,t) = \frac{Cshare(f,t) x\ E(f,t)}{\sum_{f \in F} CShare(f,t) x\ E(f,t)}\ x\ TAR(t)$$

where:

(a) FCR(f, t) is the Facility Capacity Rebate for Facility f in the Trading Interval t;

(b) TAR(t) is the sum of all Trading Interval Capacity Cost Refunds for all Market Participants in Trading Interval t;

(c) F is the set of Facilities, being Scheduled Facilities, Semi-Scheduled Facilities and Demand Side Programmes and f is a Facility within that set;

(d) CShare(f,t) for a Facility f in a Trading Interval t is the Facility's Reserve Capacity Obligation Quantity less any Forced Outages in Trading Interval t determined as follows:

i. for a Scheduled Facility or Semi-Scheduled Facility, the greater of zero and:

1. the Reserve Capacity Obligation Quantity for Facility f in Trading Interval t; less

2. the Capacity Adjusted Forced Outage Quantity for Facility f in Trading Interval t calculated in 3.21.7B; and

ii. for a Demand Side Programme, the lesser of:

1. the Demand Side Programme Load multiplied by two so as to be a MW quantity less the sum of the Minimum Consumptions in MW for each of the Facility's Associated Loads; and

2. the Demand Side Programme's Reserve Capacity Obligation Quantity in t; and

(e) E(f, t) is the eligibility of Facility f in Trading Interval t, equal to:

i. one for any Facility which is a Scheduled Facility or Semi-Scheduled Facility and the following applies:

1. the Facility has a Sent Out Metered Schedule greater than zero in any one of the 1,440 Trading Intervals prior to and including Trading Interval t;

2. the sum of the Facility Reserve Capacity Deficit Refunds for Facility f, in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Facility Refund for Facility f in Capacity Year y; and

3. the sum of the Generation Capacity Cost Refunds in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, for the Market Participant p to which the Facility is registered, is less than the Maximum Participant Generation Refund for Market Participant p for Capacity Year y; and

ii. one for any Facility which is a Demand Side Programme and the following applies:

1. the Facility received a Dispatch Instruction to reduce consumption in any one of the 1,440 Trading Intervals prior to and including Trading Interval t;

2. the Reserve Capacity Obligation Quantity for the Demand Side Programme does not equal zero in Trading Interval t; and

3. the sum of the Demand Side Programme Capacity Cost Refunds for Facility f, in Capacity Year y that the Trading Interval t falls in, for Trading Intervals prior to and including Trading Interval t, is less than the Maximum Facility Refund for Facility f in Capacity Year y; and

iii. zero otherwise.

4.26.4. AEMO must calculate the Flexible Reserve Capacity Deficit refund for each Facility f, for which a Market Participant holds Flexible Capacity Credits, ("**Flexible Facility Reserve Capacity Deficit Refund**") in each Trading Interval t as the lesser of:

(a) the product of:

i. the Flexible Trading Interval Refund Rate, calculated under clause 4.26.1(h), applicable to Facility f in Trading Interval t; and

ii. the Flexible Reserve Capacity Deficit for Facility f in Trading Interval t, which is zero if Trading Interval t is in the Hot Season, and otherwise equal to:

1. if Facility f is not a Registered Facility, the number of Flexible Capacity Credits associated with Facility f in Trading Interval t;

2. if Facility f is considered by AEMO to have not been in Commercial Operation in Trading Interval t, the number of Flexible Capacity Credits associated with Facility f in Trading Interval t;

Explanatory Note

If an intermittent facility fails to operate at its relevant level, it is deemed to miss any flexible capacity requirement that it has. This assumes that the flexible capacity relates to the portion of the facility's capability that starts at the Peak RCOQ and ends at the Peak RCOQ minus the Flexible Capacity Credits.

3. if Facility f is considered by AEMO to have been in Commercial Operation in Trading Interval t, and is not a Demand Side Programme:

$$\min(FCCIG(f,t), \max(0, \min(RL(f,t) - 2 \times MAX2(f,t), RL(f,t) - A(f,t)))) + FRTMRCD(f,t)$$

where:

i. FCCIG(f,t) is the number of Flexible Capacity Credits held for Facility f associated with Separately Certified Components of Facility f which are Intermittent Generating Systems of the Facility in Trading Interval t;

ii. RL(f,t) is the Required Level for Facility f, adjusted to 100 percent of the level of Peak Capacity Credits held for Facility f in Trading Interval t;

iii. MAX2(f,t) is the second highest value of the output for Facility f (in MWh) achieved for a Trading Interval during the Trading Day in which Trading Interval t falls, as measured in Meter Data Submissions received by AEMO in accordance with section 8.4, that has been achieved since the date AEMO determined the Facility to be in Commercial Operation up to the relevant Trading Day, where this value must be set equal to or greater than the Max2 applied by AEMO for the previous Trading Day;

iv. A(f,t) is the level of output (in MW) detailed in the most recent report provided prior to Trading Interval t by the Market Participant for Facility f under clause 4.13.10C; and

v. FRTMRCD(f,t) is the Flexible Real-Time Market Reserve Capacity Deficit determined for Facility f in Trading Interval t under clause 4.26.1B;

4. if Facility f is a Demand Side Programme, the capacity shortfall calculated as:

$$\max(0, FDSPTS(f,t), FRCOQ(f,t) - \max(0, (2 \times DSPLoad(f,t) - DSPMinLoad(f,t))))$$

where:

i. FRCOQ(f,t) is the Flexible Reserve Capacity Obligation Quantity determined for Facility f in Trading Interval t;

ii. FDSPTS(f,t) is the Flexible DSP Test Shortfall determined by AEMO under clause 4.25.3E, clause

4.25.3G(b) or clause 4.25.6(b)(ii);

iii. DSPLoad(f,t) is the Demand Side Programme Load for the Demand Side Programme f in the Trading Interval t as determined under clause 9.5.4; and

iv. DSPMinLoad is the sum of the MW quantities of Minimum Consumption for Facility f's Associated Loads in Trading Interval t; and

(b) the Maximum Flexible Facility Refund for the Facility in the relevant Capacity Year, less all Flexible Facility Reserve Capacity Deficit Refunds applicable to the Facility in previous Trading Intervals falling in the same Capacity Year.

Explanatory Note

Flexible capacity deficit refunds use the Flexible RCOQ.

4.26.5. AEMO must calculate the Flexible Real-Time Market Reserve Capacity Deficit for each Scheduled Facility or Semi-Scheduled Facility f for each Trading Interval t in which AEMO considers the Facility to have been in Commercial Operation as zero if Trading Interval t is in the Hot Season, and otherwise:

$$FRTMRCD(f,t) = min(FRCOQ(f,t),, FCAFO(f,t) + FNISCRQ(f,t) + FESRCSF(f,t) + FRTMOSF(f,t)) + FNIMGRPPO(f,t) + FESRRPPO(f,t)$$

where:

(a) FRCOQ(f,t) is the Flexible Reserve Capacity Obligation Quantity determined for Facility f in Trading Interval t;

(b) FCAFO(f,t) is the Flexible Capacity Adjusted Forced Outage Quantity determined for Facility f in Trading Interval t under clause 3.21.14;

(c) FNISCRQ(f,t) is the Flexible Not In-Service Capacity Refund Quantity determined for Facility f in Trading Interval t under clause 4.26.8;

(d) FESRCSF(f,t) is the Flexible ESR Charge Shortfall determined for Facility f in Trading Interval t under clause 4.26.9;

(e) FRTMOSF(f,t) is the Flexible Real-Time Market Offer Shortfall determined for Facility f in Trading Interval t under clause 4.26.11;

(f) FNIMGRPPO(f,t) is the total Flexible Refund Payable Planned Outage Quantity determined for Separately Certified Components of Facility f which are Non-Intermittent Generating Systems in Trading Interval t under clause 4.26.6; and

(g) FESRRPPO(f,t) is the total Flexible Refund Payable Planned Outage Quantity determined for Separately Certified Components of Facility f which are Electric Storage Resources in Trading Interval t under clause 4.26.7.

4.26.6. If the Flexible Capacity Adjusted Planned Outage Quantity in a Trading Interval for a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility which is a Non-Intermittent Generating System is greater than zero, then AEMO must determine that Flexible Capacity Adjusted Planned Outage Quantity to be:

(a) if the Flexible Refund Exempt Planned Outage Count for the Separately Certified Component, calculated over the 1000 Trading Days preceding the Trading Day in which the Trading Interval falls, is less than 8400, a Flexible Refund Exempt Planned Outage Quantity; or

(b) otherwise, a Flexible Refund Payable Planned Outage Quantity.

4.26.7. If the Flexible Capacity Adjusted Planned Outage Quantity in a Trading Interval for a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility which is an Electric Storage Resource is greater than zero, then AEMO must determine that Flexible Capacity Adjusted Planned Outage Quantity to be:

(a) if the Flexible Refund Exempt Planned Outage Count for the Separately Certified Component, calculated over the 1000 Trading Days preceding the Trading Day in which the Trading Interval falls, is less than 1400, a Flexible Refund Exempt Planned Outage Quantity; or

(b) otherwise, a Flexible Refund Payable Planned Outage Quantity.

4.26.8. AEMO must calculate the Flexible Not In-Service Capacity Refund Quantity for each Scheduled Facility or Semi-Scheduled Facility f for each Trading Interval t in which AEMO considers the Facility to have been in Commercial Operation as zero if Trading Interval t is in the Hot Season, and otherwise:

$$\mathrm{FNISCRQ(f,t)} = \frac{1}{6} \times \sum_{\mathrm{DI} \in \mathrm{t}} \min\left(\begin{matrix} NISCap(f,DI), \\ FRCOQ(f,DI) - FCAFO(f,DI) \end{matrix} \right)$$

where:

(a) FRCOQ(f,DI) is the Flexible Reserve Capacity Obligation Quantity determined for Facility f in Dispatch Interval DI;

(b) FCAFO(f,DI) is the Flexible Capacity Adjusted Forced Outage Quantity determined for Facility f in Dispatch Interval DI under clause 3.21.15;

Explanatory Note

The Not-In Service Capacity is calculated once, and does not need to be calculated separately for Peak Capacity and Flexible Capacity. This means that any Not-In Service Capacity will result in refunds for both capacity services.

(c) NISCap(f,DI) is the Not In-Service Capacity quantity determined for Facility f in Dispatch Interval DI under clause 7.13A.1; and

(d) DI∈t denotes all Dispatch Intervals DI in Trading Interval t.

4.26.9. AEMO must calculate the Flexible ESR Charge Shortfall for each Scheduled Facility or Semi-Scheduled Facility f for each Trading Interval t in which AEMO considers the Facility to have been in Commercial Operation as:

$$FESRChargeShortfall(f,t) = \frac{\sum_{DI \in t} \sum_{c \in f} FESRCSF(c,DI)}{6}$$

where:

(a) FESRCSF(c,DI) is the Flexible Capacity shortfall in MW determined for Separately Certified Component c in Dispatch Interval DI under clause 4.26.10;

(b) DI∈t denotes all Dispatch Intervals DI in Trading Interval t; and

(c) c∈f denotes all Separately Certified Components c of Facility f that are Electric Storage Resources.

Explanatory Note

As long as an Electric Storage Resource has sufficient charge to provide capacity to meet its Flexible RCOQ, it will not have a Flexible ESR Charge Shortfall, even if it does not have enough charge to meet its Peak RCOQ.

4.26.10. FESRCSF(c,DI) for Separately Certified Component c (which is an Electric Storage Resource) for Dispatch Interval DI is:

$$FESRCSF(c,DI) = max(0, FRCOQ(c,DI) - FCAFO(c,DI) - 12 \times \max(0, ChargeLevel(c,DI) - MinChargeLevel(c,DI)))$$

where:

(a) FRCOQ(c,DI) is the Flexible Reserve Capacity Obligation Quantity determined for Separately Certified Component c in Dispatch Interval DI;

(b) FCAFO(c,DI) is the Flexible Capacity Adjusted Forced Outage Quantity determined for Separately Certified Component c in Dispatch Interval DI under clause 3.21.7;

(c) ChargeLevel(c,DI) is the Charge Level in MWh, or alternative estimate from AEMO if the Charge Level is not available, of Separately Certified Component c determined at the start of Dispatch Interval DI; and

(d) MinChargeLevel(c,DI) is the minimum Charge Level capability in MWh as specified in Standing Data for Separately Certified Component c in Dispatch Interval DI.

4.26.11. AEMO must determine the shortfall in Flexible Capacity offered into the Real-Time Market ("**Flexible Real-Time Market Offer Shortfall**") for each Scheduled Facility or Semi-Scheduled Facility f for each Trading Interval t in which AEMO considers the Facility to have been in Commercial Operation as:

$$FRTMOSF(f,t) =$$

$$max\left(0, \frac{\sum_{DI \in t} \text{FRTMOSF(f, DI)}}{6} - FCAFO(f,t) - FNISCRQ(f,t) - FESRCSF(f,t)\right)$$

where:

(a) FRTMOSF(f,DI) is the shortfall in Flexible Capacity offered into the Real-Time Market determined for Facility f in Dispatch Interval DI under clause 4.26.12;

(b) FCAFO(f,t) is the Flexible Capacity Adjusted Forced Outage Quantity determined for Facility f in Trading Interval t under clause 3.21.14;

(c) FNISCRQ(f,t) is the Flexible Not In-Service Capacity Refund Quantity determined for Facility f in Trading Interval t under clause 4.26.8; and

(d) FESRCSF(f,t) is the Flexible ESR Charge Shortfall determined for Facility f in Trading Interval t under clause 4.26.9.

Explanatory Note

As long as a Facility offers sufficient capacity into the Real-Time Market to meet its Flexible RCOQ, it will not have a shortfall even if it does not offer its full Peak RCOQ.

4.26.12. FRTMOSF(f,DI) for Facility f in Dispatch Interval DI is:

$$FRTMOSF(f,DI) = max\left(0, FRCOQ(f,DI) - OfferAvail(f,DI)\right)$$

where:

(a) FRCOQ(f,DI) is the Flexible Reserve Capacity Obligation Quantity determined for Facility f in Dispatch Interval DI;

(b) OfferAvail(f,DI) is the total MW quantity included in Real-Time Market Offers for energy from Facility f in Dispatch Interval DI (whether offered as Available Capacity or In-Service Capacity) that were used to calculate Dispatch Instructions and Market Clearing Prices for that Dispatch Interval.

4.26.13. AEMO must calculate the Flexible Generation Reserve Capacity Deficit Refund for each Market Participant for each Trading Interval as the sum of the Flexible Facility Reserve Capacity Deficit Refunds for the Trading Interval for each Facility with a Facility Class (or, for an unregistered Facility, an indicative Facility Class) of Scheduled Facility or Semi-Scheduled Facility, for which the Market Participant holds Flexible Capacity Credits in the Trading Interval.

4.26.14. AEMO must determine the Flexible Capacity shortfall ("**Flexible Capacity Shortfall**") supplied by each Market Participant holding Flexible Capacity Credits associated with a Demand Side Programme f in each Trading Interval t outside the Hot Season relative to its Flexible Reserve Capacity Obligation Quantity as:

(a) if AEMO has issued a Dispatch Instruction with a non-zero MW quantity under section 7.6 to the Demand Side Programme f for the Trading Interval:

max(0, min(FRCOQ(f,t), DIMW(f,t)) – max (0, RD(f,t) – DSPLMW(f,t)))

where:

FRCOQ(f,t) is the Flexible Reserve Capacity Obligation Quantity of the Demand Side Programme f for Trading Interval t (in MW);

DIMW(f,t) is the quantity by which the Demand Side Programme f was instructed by AEMO to curtail the absolute value of its Withdrawal in Trading Interval t as specified by AEMO in accordance with clause 7.13.5;

RD(f,t) is the Relevant Demand of the Demand Side Programme f for the Trading Day the Trading Interval t falls on, determined by AEMO in accordance with clause 4.26.2CA; and

DSPLMW(f,t) is the Demand Side Programme Load of the Demand Side Programme f in Trading Interval t, multiplied by two to convert to units of MW; and

(b) zero, if AEMO has issued a Dispatch Instruction with a zero MW quantity under section 7.6 to the Demand Side Programme f for Trading Interval t.

4.26.15. For each Market Participant holding Flexible Capacity Credits, AEMO must determine the amount of the refund ("**Flexible Capacity Cost Refund**") to be applied for Trading Day d as the sum of the Flexible Trading Interval Capacity Cost Refunds of every Trading Interval in the Trading Day d, as calculated in accordance with clause 4.26.16.

4.26.16. The Flexible Trading Interval Capacity Cost Refund for Market Participant p and Trading Interval t is the sum of:

(a) either:

i. if Market Participant p holds Flexible Capacity Credits associated with an Energy Producing System, the Flexible Generation Capacity Cost Refund for Market Participant p for Trading Interval t, determined in accordance with clause 4.26.17; or

ii. zero, otherwise;

(b) the sum of the Flexible Demand Side Programme Capacity Cost Refunds for Trading Interval t for each Facility with a Facility Class (or, for an unregistered Facility, an indicative Facility Class) of Demand Side Programme for which Market Participant p holds Flexible Capacity Credits in Trading Interval t.

4.26.17. The Flexible Generation Capacity Cost Refund for Trading Interval t in Capacity Year y for a Market Participant p holding Flexible Capacity Credits associated with an Energy Producing System is the lesser of:

(a) the Maximum Flexible Participant Generation Refund determined for Market Participant p and Capacity Year y less all Flexible Generation Capacity Cost Refunds applicable to Market Participant p in previous Trading Intervals falling in Capacity Year y; and

(b) the Flexible Generation Reserve Capacity Deficit Refund for Market Participant p and Trading Interval t.

4.26.18. The Flexible Demand Side Programme Capacity Cost Refund for Trading Interval t for a Facility f with a Facility Class (or, for an unregistered Facility, an indicative Facility Class) of Demand Side Programme is equal to the lesser of:

(a) the Maximum Flexible Facility Refund for Facility f in the Capacity Year the Trading Interval t falls in, less all Flexible Demand Side Programme Capacity Cost Refunds applicable to the Facility in previous Trading Intervals falling in the same Capacity Year; and

(b) the sum of:

i. either:

1. if Facility f is a Registered Facility:

$$\mathrm{FTIRR}(f,t) \times \mathrm{FCS}(f,t)$$

where:

FCS(f,t) is the Flexible Capacity Shortfall in MW for Facility f determined in accordance with clause 4.26.14 in Trading Interval t, and

FTIRR(f,t) is the Flexible Trading Interval Refund Rate for Facility f in Trading Interval t; or

2. otherwise, zero; and

ii. the Flexible Facility Reserve Capacity Deficit Refund for Trading Interval t for Facility f, determined in accordance with clause 4.26.4.

4.27. Reserve Capacity Performance Monitoring

4.27.1. [Blank]

4.27.2. By the 25th day of each month, AEMO must assess the number of Equivalent Planned Outage Hours taken in the preceding 12 Trading Months by each Scheduled Facility and Semi-Scheduled Facility assigned Capacity Credits for the current Capacity Year.

4.27.3. If the number of Equivalent Planned Outage Hours for a Facility, as determined under clause 4.27.2, exceeds 1,750 hours for the preceding 12 Trading Months, AEMO may require the Market Participant holding Capacity Credits for that Facility to provide to AEMO:

(a) a Reserve Capacity Performance Report as described in clause 4.27.4; and

(b) a Reserve Capacity Performance Improvement Report as described in clause 4.27.4A, to be provided at intervals specified by AEMO, but not more frequently than once per quarter.

4.27.3A. In making its decision whether to require a report under clause 4.27.3, AEMO must assess whether the number of Equivalent Planned Outage Hours taken by the Facility in the previous 12 Trading Months was attributable to specific, infrequent events or is indicative of an underlying performance deficiency, and may consider any matters it deems relevant in making this assessment.

4.27.4. A Reserve Capacity Performance Report must include:

(a) explanations of all Planned Outages taken by the Facility in the 12 Trading Months referred to in clause 4.27.2;

(b) a statement of the expected maximum number of days of Planned Outages to be taken by the Facility in each of the next 36 Trading Months commencing from the Trading Month in which the report is requested, including adequate explanation to make clear the reason for each Planned Outage;

(bA) the relationship of the Planned Outages to the long term asset management strategy and established maintenance plan for the Facility;

(c) measures being undertaken or proposed by the Market Participant to increase the availability of the Facility, and their actual and anticipated effect on the frequency of Planned Outages; and

(d) any other information concerning the availability of the Facility that AEMO may request.

4.27.4A. A Reserve Capacity Performance Improvement Report must include:

(a) descriptions of the measures proposed, being undertaken or already undertaken by the Market Participant to increase the availability of the Facility;

(b) details of any changes to the expected maximum number of days of Planned Outages to be taken by the Facility for a Trading Month previously provided by the Market Participant under clause 4.27.4(b) or this clause 4.27.4A(b), including adequate explanations for each change; and

(c) explanation of any variation between expected and actual improvement of the availability of the Facility as a result of the measures taken.

4.27.5. A Market Participant must:

(a) provide a Reserve Capacity Performance Report to AEMO in a format specified in the WEM Procedure referred to in clause 4.27.12 within 20 Business Days of being requested to do so; and

(b) provide a Reserve Capacity Performance Improvement Report to AEMO in a format specified in the WEM Procedure referred to in clause 4.27.12 by the date specified by AEMO under clause 4.27.3(b).

4.27.6. AEMO may, at the Market Participant's expense, consult with any person AEMO considers suitably qualified to provide an opinion on a report provided under clause

4.27.5. AEMO may ask the person to provide an opinion on the report generally, or to limit the scope of the opinion to specified matters covered in the report.

4.27.7. [Blank]

4.27.8. [Blank]

4.27.9. [Blank]

4.27.10. Market Participants holding Capacity Credits for Facilities that are yet to commence operation must file a report on progress with AEMO:

(a) at least once every three months from the date the Capacity Credits are confirmed under clause 4.20.5A; and

(b) at least once every month between the start of the calendar year in which the date referred to in clause 4.10.1(c)(iii)(7) falls and the date AEMO notifies the Market Participant, under clause 4.13.14, that the need to maintain the Reserve Capacity Security for the Facility has ceased.

4.27.11. Reports provided under clause 4.27.10 must include any changes to Key Project Dates.

4.27.11A Upon receipt of a report provided under clause 4.27.10(a) AEMO must revise the date referred to in clause 4.10.1(c)(iii)(7) in accordance with the report unless, in its opinion, the Facility, or part of the Facility, is unlikely to have completed all Commissioning Tests by that date.

4.27.11B [Blank]

4.27.11C If, in accordance with clause 4.27.11A, AEMO rejects a change to the Key Project Dates provided in accordance with clause 4.27.10(b) or 4.27.11D AEMO must, within ten Business Days of receiving the report, notify the Market Participant of its decision and provide reasons why the dates have been rejected.

4.27.11D ~~Where~~ If AEMO rejects a change to the Key Project Dates it may require the Market Participant to provide additional information, submitted by a suitably authorised person, and may also require the Market Participant to submit further reports or revise the Key Project Dates. The provisions of clauses 4.27.11 to this clause 4.27.11D will apply to any further reports.

4.27.12. AEMO must document the procedure to be followed in performing Reserve Capacity monitoring in a WEM Procedure. Amongst other things, the WEM Procedure must list the documents and other items that may be required by AEMO as supporting evidence in accordance with clause 4.27.11D.

Funding Reserve Capacity Purchased by AEMO

4.28. Funding Reserve Capacity Purchased by AEMO

4.28.1. AEMO must separate the total costs of Peak Capacity Credits acquired by it for a Trading Day into the following two sets:

(a) the Peak Targeted Reserve Capacity Cost, which is the cost of acquiring enough Peak Capacity Credits to ensure, to the extent possible given the number of Peak Capacity Credits AEMO has acquired, that the lesser of:

i. the Peak Reserve Capacity Requirement applicable to that Trading Day; and

ii. total Peak Capacity Credits assigned to Facilities,

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

(b) the Peak Shared Reserve Capacity Cost, calculated in accordance with clause 4.28.4, which is the cost of other Peak Capacity Credits acquired but not allocated to the set referred to in clause 4.28.1(a),

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

4.28.1A. AEMO must separate the total costs of Flexible Capacity Credits acquired by it for a Trading Day into the following two sets:

(a) the Flexible Targeted Reserve Capacity Cost, which is the cost of acquiring enough Flexible Capacity Credits to ensure, to the extent possible given the number of Flexible Capacity Credits AEMO has acquired, that the lesser of:

i. the Flexible Reserve Capacity Requirement applicable to that Trading Day; and

ii. total Flexible Capacity Credits assigned to Facilities,

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

(b) the Flexible Targeted Reserve Capacity Cost, calculated in accordance with clause 4.28.4A, which is the cost of other Flexible Capacity Credits acquired but not allocated to the set referred to in clause 4.28.1A(a),

determined on the basis that the Flexible Capacity Credits acquired by AEMO are allocated to the set referred to in clause 4.28.1(a) in order of decreasing cost per Flexible Capacity Credit until the capacity requirements referred to in clause

4.28.1A(a) are met, with the remaining Flexible Capacity Credits acquired by AEMO being allocated to the set referred to in clause 4.28.1A(b).

4.28.2. For the purposes of clauses 4.28.1 and 4.28.1A:

(a) AEMO is taken to have acquired a Capacity Credit held by a Market Participant in respect of a Facility for a Trading Day if that Capacity Credit has not been allocated by that Market Participant to another Market Participant for settlement purposes under sections 4.30 and 4.31;

(b) any Capacity Credits that have been allocated to a Market Participant in excess of that Market Participant's Individual Reserve Capacity Requirements must be:

i. deemed to be Capacity Credits acquired by AEMO from the Market Participant; and

ii. not counted as Capacity Credits traded bilaterally;

(c) ~~[Blank]~~the cost of a Flexible Capacity Credit deemed to be acquired by AEMO from a Market Participant under clause 4.28.2(b)(i) is the Flexible Excess Allocation Price for that Market Participant in that Trading Day;

(~~cA~~d) ~~[Blank]~~the cost of each other Flexible Capacity Credit acquired by AEMO from a Market Participant is the greater of:

i. zero;

ii. if the Flexible Capacity Credit is associated with a Separately Certified Component, the Component Daily Flexible Reserve Capacity Price for the Separately Certified Component in that Trading Day; and

iii. if the Flexible Capacity Credit is associated with a Demand Side Programme, the Facility Daily Flexible Reserve Capacity Price for the Demand Side Programme in that Trading Day;

(~~cB~~e) the cost of a Peak Capacity Credit deemed to be acquired by AEMO from a Market Participant under clause 4.28.2(b)(i) is the Peak Excess Allocation Price for that Market Participant in that Trading Day; and

(~~d~~f) the cost of each other Peak Capacity Credit acquired by AEMO from a Market Participant ~~Facility~~ is:

i. if the Peak Capacity Credit is associated with a Separately Certified Component, the Component ~~Facility~~ Daily Peak Reserve Capacity Price for the Separately Certfied Component ~~that Facility~~ in that Trading Day~~.~~; and

ii. if the Peak Capacity Credit is assocaiated with a Demand Side Programme or Non-Scheduled Facility, the Facility Daily Peak Reserve Capacity Price for the Facility in that Trading Day.

4.28.3. For each Trading Day, AEMO must calculate the Peak Targeted Reserve Capacity Cost and must allocate this cost to Market Participants in accordance with section 9.8.

4.28.3A. For each Trading Day, AEMO must calculate the Flexible Targeted Reserve Capacity Cost and must allocate this cost to Market Participants in accordance with section 9.8.

Explanatory Note

Peak SRCC includes SRC payments relating to supplementary Peak Capacity. It also now includes refund rebates.

4.28.4. For each Trading Day, AEMO must calculate a Peak Shared Reserve Capacity Cost being the sum of:

(a) the cost defined under clause 4.28.1(b); and

(b) the net payments to be made by AEMO under Supplementary Capacity Contracts relating to shortfalls of Peak Capacity or both Peak Capacity and Flexible Capacity, as identified by AEMO under clause 4.24.1(aA), less any amount drawn under a Reserve Capacity Security or a ~~DSM~~DSP Reserve Capacity Security by AEMO and distributed in accordance with clauses 4.13.11A(a) or 4.13A.16(a) for that Trading Day; less

(c) the sum of all Intermittent Load Refunds, calculated under clause 4.28A.1, paid by all Market Participants for that Trading Day; less

(cA) the sum of all Peak Capacity Cost Refunds, calculated under clause 4.26.2E, paid by all Market Participants for that Trading Day; less

(cB) any payments made by Market Participants under clause 4.25.4CD; less

(d) any amount drawn under a Reserve Capacity Security or a ~~DSM~~DSP Reserve Capacity Security by AEMO and distributed in accordance with clauses 4.13.11A(b), ~~or~~ 4.13A.16(b), or 4.25.4CE for that Trading Day,

and AEMO must allocate this total cost to Market Participants in proportion to each Market Participant's Peak Individual Reserve Capacity Requirement.

Explanatory Note

Flexible SRCC includes SRC payments relating to supplementary Flexible Capacity, and refund rebates. It does not include Reserve Capacity Security rebates, as those are only made in respect of Peak Capacity.

4.28.4A. For each Trading Day, AEMO must calculate a Flexible Shared Reserve Capacity Cost being the sum of:

(a) the cost defined under clause 4.28.1A(b); and

(b) the net payments to be made by AEMO under Supplementary Capacity Contracts relating to shortfalls of Flexible Capacity which are not also

shortfalls of Peak Capacity, as identified by AEMO under clause 4.24.1(aA); less

(c) the sum of all Flexible Capacity Cost Refunds, calculated under clause 4.26.15, paid by all Market Participants for that Trading Day,

and AEMO must allocate this total cost to Market Participants in proportion to each Market Participant's Flexible Individual Reserve Capacity Requirement.

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

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

Explanatory Note

There may be more than 12 Peak IRCR Intervals.

4.28.5B. To determine the Peak IRCR Intervals, AEMO must:

(a) identify the 12 Trading Intervals from the previous Hot Season with the highest Total Sent Out Generation;

(b) select the Trading Days on which the Trading Intervals identified in clause 4.28.5B(a) fell;

(c) if fewer than three Trading Days are selected in clause 4.28.5B(b), select additional Trading Days containing Trading Intervals with the highest Total Sent Out Generation, to make a total of three Trading Days; and

(d) for each Trading Day selected under clauses 4.28.5B(b) and 4.28.5B(c):

i. select the Trading Interval with the highest Total Sent Out Generation;

ii. select all other Trading Intervals that were identified in clause 4.28.5B(a);

iii. if the Trading Intervals selected in clauses 4.28.5B(d)(i) and 4.28.5B(d)(ii) are not contiguous, identify any gaps of three hours or less, and select all Trading Intervals in those gaps; and

iv. if fewer than three Trading Intervals have been selected, select the Trading Intervals with the highest Total Sent Out Generation immediately before or after the selected Trading Intervals to select three Trading Intervals for the Trading Day.

4.28.5C. To determine the Flexible IRCR Intervals, AEMO must:

(a) select the three Trading Days in the previous Capacity Year containing the Trading Intervals with the highest Four-Hour Demand Increase;

(b) for each Trading Day selected in clause 4.28.5C(a) select the Trading Interval with the largest Four-Hour Demand Increase and the seven previous Trading Intervals.

Explanatory Note

These clauses are amended for daily IRCR calculation.

4.28.6. ~~For each Trading Month,~~ AEMO must determine and provide to each Market Participant that Market Participant's Indicative Peak Individual Reserve Capacity Requirement for each Trading Day in a Trading Week by the date and time specified in clause 4.1.23C, and ~~where~~ this Indicative Peak Individual Reserve Capacity Requirement must be ~~is~~ determined using the method~~ology~~ described in Appendix 5.

4.28.6A. AEMO must determine and provide to each Market Participant that Market Participant's Indicative Flexible Individual Reserve Capacity Requirement for each Trading Day of a Trading Week by the date and time specified in clause 4.1.23D, and this Indicative Flexible Individual Reserve Capacity Requirement must be determined using the method described in Appendix 4.

4.28.7. ~~For each Trading Month,~~ AEMO must determine and provide to each Market Participant that Market Participant's Peak Individual Reserve Capacity Requirement for each Trading Day by the date and time specified in clause 4.1.24, and ~~where~~ this Peak Individual Reserve Capacity Requirement must be ~~is~~ determined using the method~~ology~~ described in Appendix 5.

4.28.7A. AEMO must determine and provide to each Market Participant that Market Participant's Flexible Individual Reserve Capacity Requirement for each Trading Day by the date and time specified in clause 4.1.25, and this Flexible Individual Reserve Capacity Requirement must be determined using the method described in Appendix 4.

4.28.8. To assist AEMO in determining Indicative Peak Individual Reserve Capacity Requirements in accordance with clause 4.28.6 and Peak Individual Reserve Capacity Requirements in accordance with clause 4.28.7 for the Capacity Year starting on 1 October of Year 3 of a Reserve Capacity Cycle, Market Participants must, by the date and time specified in clause 4.1.23, provide to AEMO~~:~~

~~(a) the identity of all interval meters associated with that Market Participant which measure Loads that it nominates as Non-Temperature Dependent Loads; and~~

~~(b) [Blank]~~

~~(c)~~ nominations of capacity requirements for Intermittent Loads, deemed to be Intermittent Loads under clause 1.48.2, expressed in MW, where the nominated quantity cannot exceed the greater of:

(a)~~i.~~ the maximum allowed level of Intermittent Load specified in Standing Data for that Intermittent Load at the time of providing the data; and

(b)~~ii.~~ the maximum Contract Maximum Demand expected to be associated with that Intermittent Load during the Capacity Year to which the nomination relates. The Market Participant must provide evidence to AEMO of this Contract

Maximum Demand level unless AEMO has previously been provided with that evidence.

4.28.8A. [Blank]

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

Explanatory Note

TDLs and NTDLs are no longer treated differently, so a process to determine them is not required.

~~4.28.8C. Subject to clause 4.28.11, a Market Participant may provide to AEMO the identity of additional interval meters (to those provided under clause 4.28.8) associated with the Market Participant which measure Loads that it nominates as Non-Temperature Dependent Loads for the remainder of the relevant Capacity Year 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 Participant wants AEMO to take the updated information into account.~~

4.28.9. [Blank]~~AEMO must only accept the load measured by an interval meter nominated in accordance with clauses 4.28.8(a) or 4.28.8C as a Non-Temperature Dependent Load if that load satisfies the requirements of Appendix 5A.~~

~~4.28.9A. A Market Participant may submit a Consumption Deviation Application to AEMO in accordance with the WEM Procedure referred to in clause 4.28.9E, in respect of a Load that it has nominated as a Non-Temperature Dependent Load under clause 4.28.8(a) or clause 4.28.8C and a Trading Interval, if:~~

~~(a) the level of consumption of the Load was affected in the Trading Interval; and~~

~~(b) the Market Participant considers that the deviation in the level of consumption was due to:~~

~~i. the Trading Interval falling on a Trading Day that is not a Business Day; or~~

~~ii. a maintenance event.~~

~~4.28.9B. AEMO may charge an Application Fee to cover its costs of requesting clarification or further information of any aspect of a Consumption Deviation Application in accordance with clause 4.28.9F.~~

~~4.28.9C. A Consumption Deviation Application submitted under clause 4.28.9A must:~~

~~(a) be submitted as soon as practicable, but in any event:~~

i. for an application that relates to the Individual Reserve Capacity Requirement for October in the relevant Capacity Year, must be submitted by the date and time specified in clause 4.1.23; and

ii. for an application that relates to the Individual Reserve Capacity Requirement for a Trading Month, other than October, in the relevant Capacity Year, must be submitted by the date and time specified in clause 4.28.8C; and

(b) contain, or be accompanied by, the information specified in the WEM Procedure referred to in clause 4.28.9E.

4.28.9D. AEMO must accept or reject a Consumption Deviation Application submitted under clause 4.28.9A in accordance with the WEM Procedure referred to in clause 4.28.9E no later than the time the information is needed for the calculation of the relevant Indicative Individual Reserve Capacity Requirement.

4.28.9E. AEMO must specify the following matters in a WEM Procedure:

(a) the process that a Market Participant must follow when submitting a Consumption Deviation Application for a Load under clause 4.28.9A;

(b) the information and supporting evidence that a Market Participant must provide in its Consumption Deviation Application submitted under clause 4.28.9A;

(c) the process that AEMO must follow when it receives a Consumption Deviation Application submitted under clause 4.28.9A; and

(d) the criteria that AEMO must consider when deciding whether to accept or reject a Consumption Deviation Application submitted under clause 4.28.9A.

4.28.9F. If it considers it reasonably necessary to assess the Consumption Deviation Application, AEMO may request clarification or further information of any aspect of the Consumption Deviation Application submitted under clause 4.28.9A. Any clarification or information received is deemed to be part of the Consumption Deviation Application.

4.28.10. [Blank]

4.28.11. For each Capacity Year, a Market Participant 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. When undertaking the Adjustment Process for a Trading Week, which Trading Week contains the first Trading Day of a Trading Month, under clause 9.3.5 in accordance with the settlement cycle timeline, AEMO must recalculate the Peak Individual Reserve Capacity Requirements applicable for each Trading Day in that Trading Month, using the methodology described in Appendix 5, and must provide to each Market Participant the recalculated Peak Individual Reserve Capacity Requirements for that Market Participant applicable for each Trading Day in that Trading Week Trading Month by the Relevant Settlement Statement Date for the Trading Week.

4.28.11B. When undertaking the Adjustment Process for a Trading Week under clause 9.3.5 in accordance with the settlement cycle timeline, AEMO must recalculate the Flexible Individual Reserve Capacity Requirements applicable for each Trading Day in that Trading Week, using the method described in Appendix 4, and must provide to each Market Participant the recalculated Flexible Individual Reserve Capacity Requirements for that Market Participant applicable for each Trading Day in that Trading Week by the Relevant Settlement Statement Date for the Trading Week.

4.28.12. AEMO must document the process to be followed in calculating Indicative Individual Reserve Capacity Requirements and Individual Reserve Capacity Requirements in a WEM Procedure.

~~4.28.13. AEMO must publish on the WEM Website the following ratios calculated by it 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:~~

~~(a) NTDL_Ratio as calculated in accordance with Step 8A of Appendix 5;~~

~~(b) TDL_Ratio as calculated in accordance with Step 8C of Appendix 5; and~~

~~(c) Total_Ratio as calculated in accordance with Step 10 of Appendix 5.~~

Intermittent Load Refunds

4.28A. Intermittent Load Refunds

4.28A.1. AEMO must determine for each Intermittent Load that is and continues to be deemed to be an Intermittent Load under clause 1.48.2, registered to Market Participant p the amount of the refund ("**Intermittent Load Refund**") to be applied for each Trading Day d in respect of that Intermittent Load as the sum over all Trading Intervals t of Trading Day d of the product of:

(a) the IML Trading Interval Refund Rate for Trading Interval t for the Intermittent Load as determined in clause 4.28A.1A; and

(b) [Blank]

(c) the capacity shortfall for Trading Interval t of Trading Day d which is the greater of zero and:

i. double the MWh of the Intermittent Load metered during that Trading Interval, where for the purpose of this calculation the metered amount should be defined at the meter rather than being Loss Factor adjusted so as to be measured at the Reference Node, less;

ii. if the Energy Producing System described in clause 2.30B.2(a) is subject to a Planned Outage in the Trading Interval that would affect the energy production capability of the Energy Producing System, the quantity nominated for that Intermittent Load by its Market Participant in accordance with clause 4.28.8(c); less

iii. 3% of the quantity nominated for that Intermittent Load by its Market Participant in accordance with clause 4.28.8(c); 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 Energy Producing System described in clause 2.30B.2(a) is not subject to a Planned Outage or Forced Outage in the Trading Interval that would affect the energy production capability of the Energy Producing System, the capacity reduction, if any, specified in accordance with clause 2.30B.3(b)(i).

4.28A.1A. The IML Trading Interval Refund Rate for an Intermittent Load f in the Trading Interval t is determined as follows:

$$\text{IML Trading Interval Refund Rate}(f,t) = RF(f,t) \times Y(f,t)$$

where:

(a) IML Trading Interval Refund Rate (f,t) is the IML Trading Interval Refund Rate for Intermittent Load f in Trading Interval t;

(b) RF(f,t) is the refund factor for Intermittent Load f in Trading Interval t, which is the lesser of:

i. six; and

ii. the greater of 1 and the Peak Capacity dynamic refund factor RF dynamic(t) as determined under clause 4.26.1(d); and

(c) Y(f,t) is the per Trading Interval Peak Capacity ~~capacity~~ price associated with Intermittent Load f in Trading Interval t, which equals the Peak Reserve Capacity Price divided by 12 then divided by the number of Trading Intervals in the relevant Trading Month in which Trading Interval t falls.

4.28A.2. To support the implementation of clause 4.28A.1(c)(iv):

(a) AEMO must record the following temperature data for Energy Producing Systems in respect of which this clause 4.28A applies and for which, in accordance with clause 2.30B.3(b)(ii), a valid method for measuring ambient temperature was indicated:

i. the publicly available maximum daily temperature associated with those Energy Producing Systems for which temperature is defined in accordance with clause 2.30B.3(b)(ii)(1); and

ii. temperatures measured by the SCADA system for those Energy Producing Systems for which temperature is defined in accordance with clause 2.30B.3(b)(ii)(2).

(b) [Blank]

4.28B. [Blank]

Early Certification of Reserve Capacity

4.28C. Early Certification of Reserve Capacity

4.28C.1. This section 4.28C is applicable to Facilities to which the following conditions apply:

(a) the Facility is a new Facility;

(b) the Facility is an Energy Producing System;

(c) the Facility is deemed by AEMO to be committed.; and

(d) AEMO is satisfied that:

i. the construction of the Facility cannot be achieved within the Reserve Capacity Cycle for which Capacity Credits are being sought for the Facility; and

ii. the Commissioning Tests for the Facility cannot be achieved before the commencement of the Capacity Year for which Capacity Credits are being sought for the Facility.

4.28C.1A. In forming its opinion under clause 4.28C.1(d), AEMO may have regard to the type of Energy Producing System for which Capacity Credits are being sought for the Facility, and any required augmentation of the SWIS or construction of other infrastructure.

4.28C.2. A Market Participant with a Facility that meets the criteria in clause 4.28C.1 may apply to AEMO, at any time, but no earlier than two years, before 1 January of Year 1 of the Reserve Capacity Cycle to which the application relates, for certification of Reserve Capacity and Capacity Credits for that Facility ("**Early Certified Reserve Capacity**").

4.28C.2A. AEMO must acknowledge receipt of an application made under clause 4.28C.2 within five Business Days of receiving the application.

4.28C.2B. ~~Where~~ If AEMO considers that the Facility does not meet the criteria in clause 4.28C.1, AEMO must reject an application made under clause 4.28C.2 in respect of the Facility and must notify the relevant Market Participant of the rejection and AEMO's reasons for the rejection as soon as practicable.

4.28C.3. Each application for Early Certified Reserve Capacity must relate to a single future Reserve Capacity Cycle. AEMO must not accept more than one application for certification of Reserve Capacity per Facility per calendar year.

4.28C.4. An application under clause 4.28C.2 must state that the applicant intends to trade all assigned Certified Reserve Capacity bilaterally as defined in clause 4.14.2.

4.28C.5. An application made under clause 4.28C.2 must include:

(a) the nomination required by clause 4.4.1(d)(vi) of whether the Facility is expected to be classified as a Network Augmentation Funding Facility; and

(b) the information specified in section 4.10 that is required to be provided for the appropriate type of Facility Technology Type and Facility Class for the Facility to which the application relates to, including whether the application relates to Peak Certified Reserve Capacity or both Peak Certified Reserve Capacity and Flexible Certified Reserve Capacity.

4.28C.6. AEMO must process each application made in accordance with clause 4.28C.2 so as to determine the Early Certified Reserve Capacity for the Facility.

4.28C.7. ~~Where~~ If AEMO has received an application under clause 4.28C.2 prior to the date and time under clause 4.1.5, AEMO must set ~~Early~~ Peak Certified Reserve Capacity and Flexible Certified Reserve Capacity for the Facility:

(a) to the quantities~~that amount~~ it would normally grant the Facility if processing an application for Certified Reserve Capacity in accordance with section 4.11; and

(b) at the time AEMO next processes applications for Certified Reserve Capacity in accordance with section 4.11.

4.28C.7A. ~~Where~~ If AEMO has received an application under clause 4.28C.2, AEMO must determine an Indicative Network Access Quantity for the Facility in accordance with Appendix 3 at the time AEMO next determines Network Access Quantities for Facilities under section 4.15.

4.28C.7AA. ~~Where~~ If AEMO has previously determined an Indicative Network Access Quantity for a Facility in accordance with Appendix 3, and at the time AEMO next determines Network Access Quantities in accordance with Appendix 3 it does not determine a Final Network Access Quantity for that Facility, then AEMO must revise the Indicative Network Access Quantity in accordance with Appendix 3.

4.28C.7B. By 5:00 PM on the last Business Day falling on or before 31 October of the year in which AEMO sets the ~~Early~~ Peak Certified Reserve Capacity and Flexible Certified Reserve Capacity for the Facility under clause 4.28C.7 and determines the Indicative Network Access Quantity for the Facility under clause 4.28C.7A, AEMO must notify the applicant of the Indicative Network Access Quantity determined for the Facility under clause 4.28C.7A.

4.28C.7C. By 5:00 PM on the last Business Day falling on or before 31 October of the year in which AEMO determines the revised Indicative Network Access Quantity under clause 4.28C.7AA, AEMO must notify the applicant of the Indicative Network Access Quantity determined for the Facility under clause 4.28C.7AA.

4.28C.7D. AEMO must publish the following information on the WEM Website by the date and time specified in clause 4.1.16A(d):

(a) the name of each Facility for which an Indicative Network Access Quantity has been determined for a Facility under clause 4.28C.7A and the Indicative Network Access Quantity determined for the Facility; and

(b) the name of each Facility for which a revised Indicative Network Access Quantity has been determined for a Facility under clause 4.28C.7AA and the revised Network Access Quantity determined for the Facility.

4.28C.8. Within 30 Business Days of the applicant receiving notification by AEMO under clause 4.1.12 of the quantity ~~amount~~ of ~~Early~~ Peak Certified Reserve Capacity and Flexible Certified Reserve Capacity assigned to the Facility under clause 4.28C.7 the applicant must ensure that AEMO holds the benefit of a Reserve Capacity Security equal to the amount specified in clause 4.28C.9.

4.28C.8A. If a Market Participant does not comply with clause 4.28C.8 in full by the time specified in clause 4.28C.8, the ~~Early~~ Peak Certified Reserve Capacity and Flexible Certified Reserve Capacity assigned to that Facility under clause 4.28C.7 and the Indicative Network Access Quantity determined for that Facility will lapse.

4.28C.9. The amount for the purposes of clauses 4.28C.8 and 4.28C.12 is 25 percent of the Peak Benchmark Reserve Capacity Price included in the most recent Request for Expressions of Interest at the time and date associated with clause 4.28C.8 or 4.28C.12 as applicable, multiplied by an amount equal to the ~~Early~~ Peak Certified Reserve Capacity assigned to the Facility under clause 4.28C.7.

4.28C.10. [Blank]

4.28C.11. [Blank]

4.28C.12. Prior to the time and date specified in clause 4.1.13, in Year 1 of the first Reserve Capacity Cycle specified in clause 4.10.1(b) in which the Facility will enter service, AEMO must recalculate the amount of Reserve Capacity Security to be provided by each Market Participant in accordance with clause 4.28C.9 and:

(a) If an additional amount of Reserve Capacity Security is required, the Market Participant must ensure that AEMO holds the benefit of the additional Reserve Capacity Security by the time and date specified in clause 4.1.13; and

(b) If a reduced amount of Reserve Capacity Security is required, the Market Participant may request AEMO to return any additional Reserve Capacity Security, in accordance with clause 4.13.14, provided that at all times AEMO holds a Reserve Capacity Security to the level determined in accordance with this clause 4.28C.12.

4.28C.12A From the time and date specified in clause 4.1.13 of Year 1 of the first Reserve Capacity Cycle in which the Facility will enter service, all of the provisions of section 4.13 apply equally to the Reserve Capacity Security of Facilities with Early Certified Reserve Capacity.

4.28C.13. [Blank]

4.28C.14. [Blank]

4.28C.15. AEMO must document the process for the application of this section 4.28C and the matters AEMO will have regard to in forming its opinion under clause 4.28C.1(d) in a WEM Procedure.

Settlement Data

4.29. Settlement Data

Explanatory Note

The Peak Reserve Capacity Price and the Flexible Reserve Capacity Price will use the same curve definition, but different BRCPs. This implements Review Outcome 6 from information paper one.

4.29.1. The Reserve Capacity Prices for a Reserve Capacity Cycle to apply during the period specified in clause 4.1.29 are to be calculated as ~~is to equal~~:

(a) The Peak Reserve Capacity Price RCP_{PEAK} is~~for the 2018 Reserve Capacity Cycle, the value calculated using the following formula:~~

~~$$MIN\{\left(\frac{BRCP \times 1.141}{1 - ((surplus + 0.03) \times -4.7)}\right), BRCP \times 1.1\}$$~~

~~where:~~

~~BRCP is the Benchmark Reserve Capacity Price determined in accordance with section 4.16; and~~

~~surplus is the pro rata excess capacity calculated as follows:~~

~~$$surplus = [\max(0, (\frac{CC - RCR}{RCR})]$$~~

~~where:~~

~~CC is the total number of Capacity Credits assigned by AEMO in accordance with clause 4.20.5A for the Reserve Capacity Cycle; and~~

~~RCR is the Reserve Capacity Requirement for the Reserve Capacity Cycle;~~

~~(b) for a Reserve Capacity Cycle from the 2019 Reserve Capacity Cycle onwards, the value calculated using the following formula~~:

$$RCP_{PEAK} = \max(\text{Peak Segment 1}, \text{Peak Segment 2}, 0) * BRCP_{PEAK}$$

where:

$$\text{Peak Segment 1} = \frac{\text{EZ BRCP Factor} - \text{BRCP Cap Factor}}{\text{EZ}} \text{x surplus}_{PEAK} + \text{BRCP Cap Factor}$$

$$\text{Peak Segment 2} = \frac{\text{EZ BRCP Factor}}{\text{EZ} - \text{AZ}} \text{x } (\text{surplus}_{\text{PEAK}} - \text{AZ})$$

$BRCP_{PEAK}$ is the Peak Benchmark Reserve Capacity Price determined in accordance with section 4.16;

BRCP Cap Factor is 1.3;

EZ BRCP Factor is 0.5;

EZ is 0.1;

AZ is 0.3; and

$surplus_{PEAK}$ is the pro rata excess capacity calculated as follows:

$$\text{surplus}_{\text{PEAK}} = [\max(0, (\frac{\text{CC}_{\text{PEAK}} - \text{RCR}_{\text{PEAK}}}{\text{RCR}_{\text{PEAK}}})]$$

where:

CC_{PEAK} is the total number of Peak Capacity Credits assigned by AEMO in accordance with clause 4.20.5A for the Reserve Capacity Cycle; and

RCR_{PEAK} is the Peak Reserve Capacity Requirement for the Reserve Capacity Cycle.

(b) The Flexible Reserve Capacity Price RCP_{FLEX} is:

$$\text{RCP}_{\text{FLEX}} = \max(\text{RCP}_{\text{PEAK}}, \max(\text{Flexible Segment 1}, \text{Flexible Segment 2}, 0) * \text{BRCP}_{\text{FLEX}}) - \text{RCP}_{\text{PEAK}}$$

where:

$$\text{Flexible Segment 1} = \frac{\text{EZ BRCP Factor} - \text{BRCP Cap Factor}}{\text{EZ}} \text{x surplus}_{\text{FLEX}} + \text{BRCP Cap Factor}$$

$$\text{Flexible Segment 2} = \frac{\text{EZ BRCP Factor}}{\text{EZ} - \text{AZ}} \text{x } (\text{surplus}_{\text{FLEX}} - \text{AZ})$$

$BRCP_{FLEX}$ is the Flexible Benchmark Reserve Capacity Price determined in accordance with section 4.16;

BRCP Cap Factor, EZ BRCP Factor, EZ and AZ are as defined in clause 4.29.1(a); and

$surplus_{FLEX}$ is the pro rata excess capacity calculated as follows:

$$\text{surplus}_{\text{FLEX}} = \max(0, (\frac{\text{CC}_{\text{FLEX}} - \text{RCR}_{\text{FLEX}}}{\text{RCR}_{\text{FLEX}}})$$

where:

CC_{FLEX} is the total number of Flexible Capacity Credits assigned by AEMO in accordance with clause 4.20.5A for the Reserve Capacity Cycle;

RCR_{FLEX} is the Flexible Reserve Capacity Requirement for the

Reserve Capacity Cycle; and

RCP_{PEAK} is the Peak Reserve Capacity Price determined in accordance with clause 4.29.1(a).

Explanatory Note

Facility Capacity Price rules are amended so that each Separately Certified Component can have different Reserve Capacity Prices from other components within the same Facility, including transitional prices and fixed prices.

4.29.1A. The Component ~~Facility~~ Monthly Peak Reserve Capacity Price for a Reserve Capacity Cycle to apply during the period specified in clause 4.1.29 is equal to:

(a) ~~for the 2018 Reserve Capacity Cycle, the Reserve Capacity Price for the Reserve Capacity Cycle divided by 12; and~~

~~(b) for a Reserve Capacity Cycle from the 2019 Reserve Capacity Cycle onwards:~~

~~i. [Blank]~~

~~ii.~~ for a Transitional Component ~~Facility~~ during a Transitional Reserve Capacity Cycle, the value determined in accordance with clause 4.29.1B;

(b)~~iii.~~ for a Fixed Price Component ~~Facility~~ during a Fixed Price Reserve Capacity Cycle for that Fixed Price Component ~~Facility~~, the value determined in accordance with clause 4.29.1D for that Fixed Price Component ~~Facility~~; or

(c)~~iv.~~ for all other Separately Certified Components ~~Facilities~~, the Peak Reserve Capacity Price for the Reserve Capacity Cycle divided by 12.

4.29.1AA. The Facility Monthly Peak Reserve Capacity Price for a Reserve Capacity Cycle to apply for a Non-Scheduled Facility or Demand Side Programme during the period specified in clause 4.1.29 is equal to:

(a) for a Non-Scheduled Facility that is a Transitional Facility during a Transitional Reserve Capacity Cycle, the value determined in accordance with clause 4.29.1BA;

(b) for a Non-Scheduled Facility that is a Fixed Price Facility during a Fixed Price Reserve Capacity Cycle for that Non-Scheduled Facility, the value determined in accordance with clause 4.29.1E for that Non-Scheduled Facility;

(c) for all other Non-Scheduled Facilities, the Peak Reserve Capacity Price for the Reserve Capacity Cycle divided by 12; and

(d) for all Demand Side Programmes, the Peak Reserve Capacity Price for the Reserve Capacity Cycle divided by 12.

4.29.1B. The Component ~~Facility~~ Monthly Peak Reserve Capacity Price for a Transitional Component ~~Facility~~ during a Transitional Reserve Capacity Cycle is the value calculated using the formula below:

~~TFMRCP~~ TCMPRCP = Min(max(R~~eserve_C~~~~apacity_P~~~~rice~~$_{PEAK}$, Trans_Floor), Trans_Ceiling) / 12

where:

~~TFMRCP~~ TCMPRCP is the Component ~~Facility~~ Monthly Peak Reserve Capacity Price for the Transitional Component ~~Facility~~ in the current Transitional Reserve Capacity Cycle for that Transitional Component ~~Facility~~;

R~~eserve_C~~~~apacity_P~~~~rice~~$_{PEAK}$ is the Peak Reserve Capacity Price as determined in accordance with clause 4.29.1 for the Reserve Capacity Cycle;

Trans_Ceiling equals $140,000 for the 2019 Reserve Capacity Cycle and for each subsequent Transitional Reserve Capacity Cycle, the value as escalated in accordance with clause 4.29.1C(a); and

Trans_Floor equals $114,000 for the 2019 Reserve Capacity Cycle and for each subsequent Transitional Reserve Capacity Cycle, the value as escalated in accordance with clause 4.29.1C(b).

4.29.1BA. The Facility Monthly Peak Reserve Capacity Price for a Non-Scheduled Facility that is a Transitional Facility during a Transitional Reserve Capacity Cycle is the value calculated using the formula below:

TFMPRCP = Min(max(Reserve_Capacity_Price$_{PEAK}$, Trans_Floor), Trans_Ceiling) / 12

where:

TFMPRCP is the Facility Monthly Peak Reserve Capacity Price for the Transitional Facility in the current Transitional Reserve Capacity Cycle for that Transitional Facility;

RCP$_{PEAK}$ is the Peak Reserve Capacity Price as determined in accordance with clause 4.29.1 for the Reserve Capacity Cycle;

Trans_Ceiling equals $140,000 for the 2019 Reserve Capacity Cycle and for each subsequent Transitional Reserve Capacity Cycle, the value as escalated in accordance with clause 4.29.1C(a); and

Trans_Floor equals $114,000 for the 2019 Reserve Capacity Cycle and for each subsequent Transitional Reserve Capacity Cycle, the value as escalated in accordance with clause 4.29.1C(b).

4.29.1C. The escalation factors used in clauses 4.29.1B, 4.29.1BA, and 4.29.1F are equal to:

(a) For Trans_Ceiling:

$$\text{Trans\_Ceiling} = \text{Trans\_Ceiling}_{[\text{previous}]} \times \max(1, (1 + \text{CPI}))$$

where:

$\text{Trans\_Ceiling}_{[\text{previous}]}$ is the value of Trans_Ceiling published for the previous Transitional Reserve Capacity Cycle; and

CPI is the latest published value of the Reserve Bank of Australia's Statement of Monetary Policy forecast Consumer Price Index for June of Year 3 of the relevant Transitional Reserve Capacity Cycle; or if that value is not available, the mid-point of the Reserve Bank's latest published target range of inflation, at the time AEMO undertakes the calculation in clause 4.29.2A.

(b) For Trans_Floor:

$$\text{Trans\_Floor} = \text{Trans\_Floor}_{[\text{previous}]} \times \max(1, (1 + \text{CPI}))$$

where:

$\text{Trans\_Floor}_{[\text{previous}]}$ is the value of Trans_Floor published for the previous Transitional Reserve Capacity Cycle; and

CPI is the latest published value of the Reserve Bank of Australia's Statement of Monetary Policy forecast Consumer Price Index for June of Year 3 of the relevant Transitional Reserve Capacity Cycle; or if that value is not available, the mid-point of the Reserve Bank's latest published target range of inflation, at the time AEMO undertakes the calculation in clause 4.29.2A.

4.29.1CA. AEMO must publish on the WEM Website:

(a) the values determined for Trans_Ceiling and Trans_Floor in accordance with clause 4.29.1C that are used in the formula in clause 4.29.1B; and

(b) the value determined by multiplying the ~~Facility~~ Component Monthly Peak Reserve Capacity Price for a Transitional ~~Facility~~ Component determined in clause 4.29.1B by 12.

4.29.1D. The ~~Facility~~ Component Monthly Peak Reserve Capacity Price for a Fixed Price ~~Facility~~ Component during a Fixed Price Reserve Capacity Cycle for the Fixed Price ~~Facility~~ Component is:

(a) for the first Reserve Capacity Cycle for which a ~~Facility~~ Separately Certified Component is classified as a Fixed Price ~~Facility~~ Component, the Peak Reserve Capacity Price divided by 12; and

(b) for each subsequent Fixed Price Reserve Capacity Cycle for the Fixed Price ~~Facility~~ Component, the value calculated in accordance with the following formula divided by 12:

$$\text{~~FRCP~~CPRCP} = \text{~~FRCP~~CPRCP}_{[\text{previous}]} \times \max(1, (1 + \text{CPI}))$$

where:

CPRCP ~~FRCP~~ is the ~~Facility~~ Component Monthly Peak Reserve Capacity Price for the Fixed Price ~~Facility~~ Component in the current

Fixed Price Reserve Capacity Cycle for that Fixed Price ~~Facility~~ Component;

~~FRCP~~CPRCP$_{[previous]}$ is the ~~Facility~~ Component Monthly Peak Reserve Capacity Price for the Fixed Price ~~Facility~~ Component in the previous Fixed Price Reserve Capacity Cycle for that Fixed Price ~~Facility~~ Component; and

CPI is the consumer price index value determined in accordance with clause 4.29.2.

~~CPI is the latest published value of the Reserve Bank of Australia's Statement of Monetary Policy forecast Consumer Price Index for June of Year 3 of the relevant Fixed Price Reserve Capacity Cycle; or if that value is not available, the mid-point of the Reserve Bank's latest published target range of inflation at that time, at the time AEMO undertakes the calculation in clause 4.29.2A.~~

4.29.1E. The Facility Monthly Peak Reserve Capacity Price for a Fixed Price Facility during a Fixed Price Reserve Capacity Cycle for the Fixed Price Facility is:

(a) for the first Reserve Capacity Cycle for which a Facility is classified as a Fixed Price Facility, the Peak Reserve Capacity Price divided by 12; and

(b) for each subsequent Fixed Price Reserve Capacity Cycle for the Fixed Price Facility, the value calculated in accordance with the following formula divided by 12:

$$\text{FPRCP} = \text{FPRCP}_{[previous]} \times \max(1, (1 + \text{CPI}))$$

where:

FPRCP is the Facility Monthly Peak Reserve Capacity Price for the Fixed Price Facility in the current Fixed Price Reserve Capacity Cycle for that Fixed Price Facility;

$\text{FPRCP}_{[previous]}$ is the Facility Monthly Peak Reserve Capacity Price for the Fixed Price Facility in the previous Fixed Price Reserve Capacity Cycle for that Fixed Price Facility; and

CPI is the consumer price index value determined in accordance with clause 4.29.2.

4.29.1F The Component Monthly Flexible Reserve Capacity Price for a Reserve Capacity Cycle to apply during the period specified in clause 4.1.29 is equal to:

(a) For a Transitional Component during a Transitional Reserve Capacity Cycle, the value determined in accordance with clause 4.29.1H;

(b) for a Fixed Price Component during a Fixed Price Reserve Capacity Cycle for that Fixed Price Component, the value determined in accordance with clause 4.29.1J for that Fixed Price Component; or

(c) for all other Separately Certified Components, the Flexible Reserve Capacity Price for the Reserve Capacity Cycle divided by 12.

4.29.1G The Facility Monthly Flexible Reserve Capacity Price for a Reserve Capacity Cycle to apply for a Non-Scheduled Facility or Demand Side Programme during the period specified in clause 4.1.29 is equal to:

(a) For a Non-Scheduled Facility that is a Transitional Facility during a Transitional Reserve Capacity Cycle, the value determined in accordance with clause 4.29.1I;

(b) for a Non-Scheduled Facility that is a Fixed Price Facility during a Fixed Price Reserve Capacity Cycle for that Fixed Price Facility, the value determined in accordance with clause 4.29.1K for that Fixed Price Component;

(c) for all other Non-Scheduled Facilities, the Flexible Reserve Capacity Price for the Reserve Capacity Cycle divided by 12; or

(d) for all Demand Side Programmes, the Flexible Reserve Capacity for the Reserve Capacity Cycle divided by 12.

Explanatory Note

The FMFRCP for a Transitional Facility is floored at the Peak price floor, but is not capped at the Peak price cap.

4.29.1H. The Component Monthly Flexible Reserve Capacity Price for a Transitional Component during a Transitional Reserve Capacity Cycle is the value calculated using the formula below:

$$TCMFRCP = \max(RCP_{FLEX} + RCP_{PEAK}, Trans\_Floor)/ 12 - TCMPRCP$$

where:

TCMFRCP is the Component Monthly Flexible Reserve Capacity Price for the Transitional Component in the current Transitional Reserve Capacity Cycle for that Transitional Component;

RCP_{FLEX} is the Flexible Reserve Capacity Price as determined in accordance with clause 4.29.1 for the Reserve Capacity Cycle;

RCP_{PEAK} is the Peak Reserve Capacity Price as determined in accordance with clause 4.29.1 for the Reserve Capacity Cycle;

Trans_Floor equals $114,000 for the 2019 Reserve Capacity Cycle and for each subsequent Transitional Reserve Capacity Cycle, the value as escalated in accordance with clause 4.29.1C(b); and

TCMPRCP is the Component Monthly Peak Reserve Capacity Price for the Transitional Component in the current Transitional Reserve Capacity Cycle for that Transitional Component, as determined under clause 4.29.1B.

4.29.1I. The Facility Monthly Flexible Reserve Capacity Price for a Non-Scheduled Facility that is a Transitional Facility during a Transitional Reserve Capacity Cycle is the value calculated using the formula below:

TFMFRCP = max(RCP_{FLEX} + RCP_{PEAK}, Trans_Floor) / 12 - TFMPRCP

where:

TFMFRCP is the Facility Monthly Flexible Reserve Capacity Price for the Transitional Facility in the current Transitional Reserve Capacity Cycle for that Transitional Facility;

RCP_{FLEX} is the Flexible Reserve Capacity Price as determined in accordance with clause 4.29.1 for the Reserve Capacity Cycle;

RCP_{PEAK} is the Peak Reserve Capacity Price as determined in accordance with clause 4.29.1 for the Reserve Capacity Cycle;

Trans_Floor equals $114,000 for the 2019 Reserve Capacity Cycle and for each subsequent Transitional Reserve Capacity Cycle, the value as escalated in accordance with clause 4.29.1C(b); and

TCMPRCP is the Component Monthly Peak Reserve Capacity Price for the Transitional Component in the current Transitional Reserve Capacity Cycle for that Transitional Component as determined under clause 4.29.1BA.

4.29.1J. The Component Monthly Flexible Reserve Capacity Price for a Fixed Price Component during a Fixed Price Reserve Capacity Cycle for the Fixed Price Component is:

(a) for the first Reserve Capacity Cycle for which a Separately Certified Component is classified as a Fixed Price Component, the Flexible Reserve Capacity Price divided by 12; and

(b) for each subsequent Fixed Price Reserve Capacity Cycle for the Fixed Price Component, the value calculated in accordance with the following formula divided by 12:

$$\mathrm{CFRCP} = \mathrm{CFRCP}_{\mathrm{previous}} \times \max(1, (1 + \mathrm{CPI}))$$

where:

CFRCP is the Component Monthly Flexible Reserve Capacity Price for the Fixed Price Component in the current Fixed Price Reserve Capacity Cycle for that Fixed Price Component;

$\mathrm{CFRCP}_{\mathrm{previous}}$ is the Component Monthly Flexible Reserve Capacity Price for the Fixed Price Component in the previous Fixed Price Reserve Capacity Cycle for that Fixed Price Component; and

CPI is the consumer price index value determined in accordance with clause 4.29.2.

Explanatory Note

Non-Scheduled Facilities cannot get Flexible Capacity Credits, so there is no need for a facility monthly flexible reserve capacity price for a Fixed Price Facility.

4.29.2. ~~[Blank]~~The consumer price index value to be used in clauses 4.29.4D, 4.29.4E, and 4.29.1J is the latest published value of the Reserve Bank of Australia's Statement of Monetary Policy forecast Consumer Price Index for June of Year 3 of the relevant Fixed Price Reserve Capacity Cycle; or if that value is not available, the mid-point of the Reserve Bank's latest published target range of inflation at that time, at the time AEMO determines the information required under clause 4.29.2B;

4.29.2A. AEMO must determine the information specified in clause 4.29.2B by the date and time specified in clause 4.1.16A.

4.29.2B. For each Reserve Capacity Cycle AEMO must determine the following information in accordance with this section 4.29:

(a) the ~~Facility~~ Component Monthly Peak Reserve Capacity Price for each ~~a~~ Transitional ~~Facility~~ Component if the Reserve Capacity Cycle is a Transitional Reserve Capacity Cycle;

(b) the ~~Facility~~ Component Monthly Peak Reserve Capacity Price for each Fixed Price ~~Facility~~ Component for which the Reserve Capacity Cycle is a Fixed Price Reserve Capacity Cycle; ~~and~~

(c) the ~~Facility~~ Component Monthly Peak Reserve Capacity Price for all other Separately Certified Components ~~Facilities~~;~~.~~

(d) the Component Monthly Flexible Reserve Capacity Price for each Transitional Component if the Reserve Capacity Cycle is a Transitional Reserve Capacity Cycle;

(d) the Component Monthly Flexible Reserve Capacity Price for each Fixed Price Component for which the Reserve Capacity Cycle is a Fixed Price Reserve Capacity Cycle;

(e) the Component Monthly Flexible Reserve Capacity Price for all other Facilities;

(f) the Facility Monthly Peak Reserve Capacity Price for each Transitional Facility if the Reserve Capacity Cycle is a Transitional Reserve Capacity Cycle;

(g) the Facility Monthly Peak Reserve Capacity Price for each Fixed Price Facility for which the Reserve Capacity Cycle is a Fixed Price Reserve Capacity Cycle;

(h) the Facility Monthly Peak Reserve Capacity Price for all other Facilities;

(i) the Facility Monthly Flexible Reserve Capacity Price for each Transitional Facility if the Reserve Capacity Cycle is a Transitional Reserve Capacity Cycle;

(j) the Facility Monthly Flexible Reserve Capacity Price for each Fixed Price Facility for which the Reserve Capacity Cycle is a Fixed Price Reserve Capacity Cycle; and

(k) the Facility Monthly Flexible Reserve Capacity Price for all other Facilities.

4.29.3. AEMO must determine the following information in time for settlement of each Trading Day d:

(a) the ~~Facility~~ Component Monthly Peak Reserve Capacity Price for each ~~Facility~~ Separately Certified Component applying during that Trading Month;

(aA) the ~~Facility~~ Component Daily Peak Reserve Capacity Price for each ~~Facility~~ Separately Certified Component applying during that Trading Day;

(aB) the Component Monthly Flexible Reserve Capacity Price for each Separately Certified Component applying during that Trading Month;

(aC) the Component Daily Flexible Reserve Capacity Price for each Separately Certified Component applying during that Trading Month;

(aD) the Facility Monthly Peak Reserve Capacity Price for each Non-Scheduled Facility and Demand Side Programme applying during that Trading Month;

(aE) the Facility Monthly Peak Reserve Capacity Price for each Non-Scheduled Facility and Demand Side Programme applying during that Trading Day;

(aF) the Facility Monthly Flexible Reserve Capacity Price for each Non-Scheduled Facility and Demand Side Programme applying during that Trading Month;

(aG) the Facility Monthly Flexible Reserve Capacity Price for each Non-Scheduled Facility and Demand Side Programme applying during that Trading Day;

(b) the Peak Targeted Reserve Capacity Cost for that Trading Day as defined in clause 4.28.3;

(bA) the Flexible Targeted Reserve Capacity Cost for that Trading Day as defined in clause 4.28.3A;

(c) the Peak Shared Reserve Capacity Cost for that Trading Day as defined in clause 4.28.4;

(cA) the Flexible Shared Reserve Capacity Cost for that Trading Day as defined in clause 4.28.4A;

(d) for each Market Participant p and for Trading Day d:

i. the quantity of Peak Capacity Credits (including Capacity Credits from Facilities subject to NCESS Contracts) for each Facility and Separately Certified Component acquired by AEMO;

iA. the quantity of Flexible Capacity Credits (including Capacity Credits from Facilities subject to NCESS Contracts) for each Facility and Separately Certified Component acquired by AEMO;

ii. the quantity of Peak Capacity Credits for each Demand Side Programme for Trading Day d;

iii. ~~[Blank]~~the quantity of Flexible Capacity Credits for each Demand Side Programme for Trading Day d;

iv. the quantity of Peak Capacity Credits for each Facility and Separately Certified Component traded bilaterally in accordance with section 4.30;

ivA. the quantity of Flexible Capacity Credits for each Facility and Separately Certified Component traded bilaterally in accordance with section 4.30;

v. the Peak Individual Reserve Capacity Requirement for each Market Participant for that Trading Month in which Trading Day d falls;

vA. the Flexible Individual Reserve Capacity Requirement for each Market Participant for that Trading Month in which Trading Day d falls;

vi. the total Peak Capacity Cost Refund to be paid by the Market Participant to AEMO for all Trading Intervals in Trading Day d; and

vii. ~~the total Participant Capacity Rebate to be paid to the Market Participant by AEMO for all Trading Intervals in Trading Day d~~the total Flexible Capacity Cost Refund to be paid by the Market Participant to AEMO for all Trading Intervals in Trading Day d;

(dA) for each Market Participant, the sum over all of Market Participant p's Intermittent Loads, deemed to be Intermittent Loads under clause 1.48.2, of the Intermittent Load Refund payable to AEMO by Market Participant p in respect of each of its Intermittent Loads for Trading Day d; and

(e) for each Supplementary Capacity Contract:

i. the net payment to be made by AEMO under that contract for the Trading Day d; ~~and~~

ii. to whom the payment is to be made~~.~~; and

iii. whether that contract relates to a shortfall of solely Peak Capacity, both Peak Capacity and Flexible Capacity, or solely Flexible Capacity.

4.29.4. [Blank]

4.29.5. ~~Where~~ If a Facility first enters service prior to 1 October of Year 3 of a Reserve Capacity Cycle and Reserve Capacity Obligations apply to the relevant Facility in accordance with clause 4.1.26, then for the period between commencement of the Reserve Capacity Obligations for the Facility and up to the start of the Trading Day on 1 October of Year 3 of that Reserve Capacity Cycle:~~,~~

(a) if the Facility is a Scheduled Facility or Semi-Scheduled Facility, the ~~Facility~~ Component Monthly Peak Reserve Capacity Price for the ~~Facility~~ Separately Certified Components of that Facility for that period is equal to the Peak

Reserve Capacity Price for the Capacity Year immediately preceding 1 October of Year 3 of that Reserve Capacity Cycle divided by 12;

(b) if the Facility is a Scheduled Facility or Semi-Scheduled Facility, the Component Monthly Flexible Reserve Capacity Price for the Separately Certified Components of that Facility for that period is equal to the Flexible Reserve Capacity Price for the Capacity Year immediately preceding 1 October of Year 3 of that Reserve Capacity Cycle divided by 12;

(c) if the Facility is a Non-Scheduled Facility or Demand Side Programme, the Facility Monthly Peak Reserve Capacity Price for the Facility for that period is equal to the Peak Reserve Capacity Price for the Capacity Year immediately preceding 1 October of Year 3 of that Reserve Capacity Cycle divided by 12; and

(d) if the Facility is a Non-Scheduled Facility or Demand Side Programme, the Facility Monthly Flexible Reserve Capacity Price for the Facility for that period is equal to the Flexible Reserve Capacity Price for the Capacity Year immediately preceding 1 October of Year 3 of that Reserve Capacity Cycle divided by 12.

4.30. Daily Capacity Credit Allocation Process

4.30.1. A Market Participant may submit one or more Capacity Credit Allocation Submissions in respect of a Facility by 5:00PM on the Scheduling Day for the respective Trading Day.

4.30.2. A Capacity Credit Allocation Submission must be submitted in the form specified by AEMO and must include the information specified in clause 4.31.1.

4.30.3. 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 submitting Market Participant of the decision;

(c) if the decision is to reject the Capacity Credit Allocation Submission, notify the submitting Market Participant of the reason for the rejection; and

(d) if the decision is to approve the Capacity Credit Allocation Submission, notify the Market Participant specified as the receiver of the Capacity Credits of the details of the Capacity Credit Allocation Submission.

4.30.4. AEMO must reject a Capacity Credit Allocation Submission in respect of a Facility if the sum of the Peak Capacity Credits:

(a) proposed to be allocat~~e~~ed in the Capacity Credit Allocation Submission; and

(b) proposed to be allocated in any other Capacity Credit Allocation Submission for that Facility by that Market Participant for the relevant Trading Day,

exceeds the number of Peak Capacity Credits that are able to be traded bilaterally for that Facility by that Market Participant under the WEM Rules for the Trading Day.

4.30.4A AEMO must reject a Capacity Credit Allocation Submission in respect of a Facility if the sum of the Flexible Capacity Credits:

(a) proposed to be allocated in the Capacity Credit Allocation Submission; and

(b) proposed to be allocated in any other Capacity Credit Allocation Submission for that Facility by that Market Participant for the relevant Trading Day,

exceeds the number of Flexible Capacity Credits that are able to be traded bilaterally for that Facility by that Market Participant under the WEM Rules for the Trading Day.

4.30.5. AEMO must approve a Capacity Credit Allocation Submission if the Capacity Credit Allocation Submission is not rejected in accordance with clause 4.30.4.

4.30.6. A Market Participant may withdraw a Capacity Credit Allocation Submission in respect of a Facility at any time before 5:00 PM on the Scheduling Day for the respective Trading Day.

4.30.7. By submitting or withdrawing a Capacity Credit Allocation Submission a Market Participant acknowledges that it is acting with the permission of all affected Market Participants.

4.30.8. Within one Trading Day after a Market Participant has withdrawn a Capacity Credit Allocation Submission in respect of a Facility under clause 4.30.6, AEMO must notify the Market Participant specified as the receiver of the Capacity Credits that the Capacity Credit Allocation Submission for that Facility has been withdrawn.

4.30.9. If the termination of a Capacity Credit in respect of a Facility results in the number of Capacity Credits allocated by a Market Participant in Capacity Credit Allocations for that Facility for a Trading Day exceeding the number of Capacity Credits held for that Facility for that Trading Day by the Market Participant that are allowed to be traded bilaterally under the WEM Rules, then AEMO must notify the Market Participant within one Trading Day after the notification of the termination.

4.30.10. Following receipt of a notice provided under clause 4.30.9, a Market Participant may reduce the number of Capacity Credits allocated in respect of the relevant Facility by withdrawing Capacity Credit Allocations and submitting Capacity Credit Allocation Submissions in accordance with clauses 4.30.6 and 4.30.1, respectively.

4.30.11. If, at 5:00 PM on the Scheduling Day, the Capacity Credit Allocations for a Market Participant with respect to a Facility exceeds the number of Capacity Credits held for the Facility, AEMO must, by 5:00 PM on the Trading Day for which the Capacity Credit Allocation relates:

(a) amend all of the relevant Capacity Credit Allocations proportionally, to ensure that the sum of the Capacity Credit Allocations in respect of the relevant

Facility for the Market Participant for the Trading Day equal the number of Capacity Credits held for that Facility; and

(b) for each amended Capacity Credit Allocation, notify each affected Market Participant of the details of the amendment.

4.30.12. AEMO must develop a WEM Procedure dealing with:

(a) Capacity Credit Allocations; and

(b) other matters relating to sections 4.30 and 4.31.

4.31. Format of Capacity Credit Allocation Submissions

Explanatory Note

Capacity Credit Allocation Submissions must now identify the Separately Certified Component that the Capacity Credits are associated with, as different components in a facility can have different capacity prices.

4.31.1. A Capacity Credit Allocation Submission must set out:

(a) the identity of the submitting Market Participant, which must be the holder of the Capacity Credits;

(b) the identity of the Facility from which the Capacity Credits are to be allocated for settlement purposes;

(bA) the identity of the Separately Certified Component from which the Capacity Credits are to be allocated for settlement purposes;

(c) the identity of the Market Participant to which the Capacity Credits are to be allocated for settlement purposes, which may be the submitting Market Participant; ~~and~~

(d) the number of Peak Capacity Credits to be allocated for settlement purposes from the Market Participant which was the holder of the Capacity Credits to the Market Participant which was allocated Capacity Credits, which may be the same Market Participant; and

(e) the number of Flexible Capacity Credits to be allocated for settlement purposes from the Market Participant which was the holder of the Capacity Credits to the Market Participant which was allocated Capacity Credits, which may be the same Market Participant.

4.31.2. A Capacity Credit Allocation Submission in respect of a Facility may allocate part of a Capacity Credit for that Facility provided that the number of Capacity Credits allocated is specified to a precision of 0.001 MW.

4.32. Capacity Credit Allocation Timeline

4.32.1. AEMO must publish the Capacity Credit Allocation Submission timeline for a Financial Year at least one calendar month prior to the commencement of that Financial Year. The Capacity Credit Allocation Submission timeline must include:

(a) the earliest date and time at which Capacity Credit Allocation Submissions for a Trading Day can be submitted, where this is to be not less than 10 Business Days prior to the start of the relevant Trading Day; and

(b) the latest date and time at which Capacity Credit Allocation Submissions for a Trading Day can be submitted, where this is to be no later than 5:00 PM on the Scheduling Day.

…

6.3. Determination of First Peak Electric Storage Resource Obligation Intervals

6.3.1. AEMO must, in accordance with the WEM Procedure referred to in clause 4.11.3A, determine and record the following information by 6:50 AM on each Scheduling Day:

(a) the First Peak Electric Storage Resource Obligation Interval~~s~~ that will apply during the Trading Day for the Scheduling Day; and

(b) the First Peak Electric Storage Resource Obligation Intervals that AEMO expects will apply during each of the seven following Trading Days.

…

6.3A.2. AEMO must make the following information available to each Market Participant by 6:50 AM on each Scheduling Day:

(a) the First Peak Electric Storage Resource Obligation Interval~~s~~ that will apply for the Trading Day for the Scheduling Day, as determined by AEMO under clause 6.3.1(a); and

(b) the First Peak Electric Storage Resource Obligation Intervals that AEMO expects will apply for each of the seven Trading Days following the Trading Day for the Scheduling Day, as determined by AEMO under clause 6.3.1(b).

6.3A.3. Between 8:00 AM and 8:30 AM each Scheduling Day, AEMO must:

…

(g) using the assumptions specified in clause 6.3A.4, determine and record an estimate of the Peak Capacity Adjusted Forced Outage Quantity and Peak Capacity Adjusted Planned Outage Quantity for each Scheduled Facility or Semi-Scheduled Facility, and each Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility, for each Dispatch Interval and each Trading Interval in the STEM Submission Information Window in which AEMO considers the relevant Facility will be in Commercial Operation; and

(h) using the assumptions specified in clause 6.3A.4, determine and record an estimate of the Peak Reserve Capacity Obligation Quantity for each Scheduled Facility or Semi-Scheduled Facility, and each Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility, for each Dispatch Interval in the STEM Submission Information Window in which AEMO considers the relevant Facility will be in Commercial Operation.

6.3A.4. When determining Peak Capacity Adjusted Planned Outage Quantity, Peak Capacity Adjusted Forced Outage Quantity and Peak Reserve Capacity Obligation Quantity estimates on a Scheduling Day under clauses 6.3A.3(g) and 6.3A.3(h), AEMO must assume that:

(a) the First Peak Electric Storage Resource Obligation Intervals and Flexible Electric Storage Resource Obligation Intervals for the Trading Days in the

STEM Submission Information Window are the same as those determined by AEMO on the Scheduling Day under clause 6.3.1;

(b) the Commissioning Test Plan details for each Facility for each Dispatch Interval in the STEM Submission Information Window are the same as those identified by AEMO on the Scheduling Day under clause 6.3A.3(a);

(c) the Planned Outage and Forced Outage details for each Separately Certified Component for each Dispatch Interval in the STEM Submission Information Window are the same as those identified by AEMO on the Scheduling Day under clause 6.3A.3(b);

(d) the maximum daily temperature at the site of each relevant Facility does not exceed 41 degrees Celsius on any Trading Day in the STEM Submission Information Window; and

(e) the Peak Reserve Capacity Obligation Quantity of an Electric Storage Resource is not reduced under clause 4.12.5(g) or clause 4.12.5(h) for any Dispatch Interval in the STEM Submission Information Window.

6.3A.5. By 8:30 AM on each Scheduling Day, AEMO must make available to each Market Participant the following parameters for information in forming its STEM Submissions:

(a) for each Trading Interval in the STEM Submission Information Window:

i. the Maximum Facility Supply Capability determined on the Scheduling Day under clause 6.3A.3(d) for each Scheduled Facility, Semi-Scheduled Facility and Non-Scheduled Facility registered to the Market Participant in the Trading Interval;

ii. the Maximum Supply Capability determined on the Scheduling Day under clause 6.3A.3(e) for the Market Participant; and

iii. the Maximum Consumption Capability determined on the Scheduling Day under clause 6.3A.3(f) for the Market Participant;

(b) for each Trading Interval in the STEM Submission Information Window, for each Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility for which the Market Participant holds Capacity Credits in the Trading Interval and which AEMO considers to be in Commercial Operation in the Trading Interval:

i. the Peak Capacity Adjusted Forced Outage Quantity estimate determined on the Scheduling Day under clause 6.3A.3(g); and

ii. the Peak Capacity Adjusted Planned Outage Quantity estimate determined on the Scheduling Day under clause 6.3A.3(g); and

(c) for each Dispatch Interval in the STEM Submission Information Window, for each Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility for which the Market Participant holds Capacity Credits in the Dispatch Interval and which AEMO considers to be in Commercial Operation in the Dispatch Interval:

i. the Peak Capacity Adjusted Forced Outage Quantity estimate determined on the Scheduling Day under clause 6.3A.3(g);

ii. the Peak Capacity Adjusted Planned Outage Quantity estimate determined on the Scheduling Day under clause 6.3A.3(g); and

iii. the Peak Reserve Capacity Obligation Quantity estimate determined on the Scheduling Day under clause 6.3A.3(h).

…

7.3. Forecast Unscheduled Operational Demand

7.3.1. AEMO must prepare a Forecast Unscheduled Operational Demand for:

(a) each Pre-Dispatch Interval within each Week-Ahead Schedule Horizon; and

(b) each Dispatch Interval within each Dispatch Schedule Horizon.

7.3.2. The Forecast Unscheduled Operational Demand must represent AEMO's best estimate of the total demand, in MW, to be served in the Pre-Dispatch Interval or Dispatch Interval, excluding:

(a) any Withdrawal by Non-Scheduled Facilities; and

(b) any Withdrawal quantities scheduled by the Dispatch Algorithm for Scheduled Facilities or Semi-Scheduled Facilities.

7.3.3. ~~[Blank]~~AEMO must prepare a forecast highest Four-Hour Demand Increase for each Trading Day within each Week-Ahead Schedule Horizon.

7.3.4. AEMO must document in a WEM Procedure the methodology and processes it follows for determining and publishing the Forecast Unscheduled Operational Demand and the forecast highest Four-Hour Demand Increase under this section 7.3.

…

7.4A.8. If a Market Participant receives a notification relating to a Reserve Capacity Test of a Demand Side Programme under clause 4.25.9(h), the Market Participant must:

(a) as soon as practicable and, in the case of a Reserve Capacity Test under clause 4.25.2(b)(ii), clause 4.25.4 or clause 4.25.6(b)(i), no later than one hour before the Reserve Capacity Test is due to commence, review and update the DSP Withdrawal Profile Submissions for the Demand Side Programme for, subject to clause 7.4A.9A, each future Dispatch Interval in the Trading Day in which the Reserve Capacity Test will be conducted; and

(b) take the information provided in the notification under clause 4.25.9(h) into account in determining the relevant DSP Constrained Withdrawal Quantities.

…

7.10.4. ~~Where~~ If a Semi-Scheduled Facility contains an Electric Storage Resource, a Market Participant must not operate the Electric Storage Resource to increase the deviation of the Semi-Scheduled Facility's Injection or Withdrawal from the Semi-Scheduled Facility's Dispatch Forecast, unless the deviation is:

(a) instructed as part of the delivery of one or more Essential System Services; or

(b) to provide a required response as part of the Facility's Registered Generator Performance Standard.

7.10.5. AEMO must document in a WEM Procedure the method for calculating an Electric Storage Resource's contribution to the relevant Semi-Scheduled Facility's deviation from its Dispatch Forecast for the purposes of clause 7.10.4.

7.10.6. Where a Market Participant can control the Injection or Withdrawal of a Semi-Scheduled Facility, it must not exercise that control so as to increase the deviation of the Semi-Scheduled Facility's Injection or Withdrawal from the Semi-Scheduled Facility's Dispatch Forecast, unless this deviation is:

(a) instructed as part of the delivery of one or more Essential System Services; or

(b) to provide a required response as part of the Facility's Registered Generator Performance Standard.

Explanatory Note

This clause prohibits a participant from receiving Capacity Credits for a behind the meter generator or ESR, and also operating that Energy Producing Resource to reduce its IRCR exposure. This implements part of review outcome 3 from information paper two.

7.10.6A. If a Market Participant holds Capacity Credits associated with an Energy Producing System in a Facility that also includes a Non-Dispatchable Load, the Market Participant must not operate the Energy Producing System for the purpose of reducing the Facility's Peak Individual Reserve Capacity Requirement or Flexible Individual Reserve Capacity Requirement.

…

7.13.1F. AEMO must prepare and publish on the WEM Website, for each Trading Interval and Dispatch Interval of a Trading Day, by noon on the first Business Day following the day on which the Trading Day ends:

(a) an estimate of the total quantity of energy not served (in MWh) due to involuntary load shedding (manual and automatic); and

(b) an estimate of the change in Withdrawal (in MWh) of any Interruptible Loads in the provision of Contingency Reserve Raise.; and

(c) an estimate of the change in Withdrawal (in MWh) of Demand Side Programmes in response to any Dispatch Instructions.

…

7.13.5. AEMO must, for the purposes of clauses 7.13.1E(d) and 4.26.2D, calculate, for each Demand Side Programme for each Trading Interval, the quantity, in MW, by which the Facility was requested by the applicable Dispatch Instruction to curtail the absolute value of its Withdrawal during that Trading Interval, where the quantity:

(a) must be measured as a requested decrease from the Facility's Relevant Demand (and so must not include any quantity above the Relevant Demand); and

(b) must not take account of the Facility's actual performance in response to the Dispatch Instruction.

7.13.6. ~~Where~~ If an estimate is required to support the Relevant Level Method~~ology~~ for a Registered Facility that:

(a) contains an Intermittent Generating System; or

(b) is a Non-Scheduled Facility,

AEMO must estimate, for the Intermittent Generating System or Non-Scheduled Facility, for each Trading Interval, the maximum quantity of sent out energy in MWh which the Intermittent Generating System or Non-Scheduled Facility could have potentially generated in the Trading Interval had the output of the Registered Facility associated with the Intermittent Generating System or the Non-Scheduled Facility not been restricted by a Dispatch Instruction or Network limitation during that Trading Interval, in accordance with the WEM Procedure referred to in clause 7.13.8.

7.13.7. If AEMO reasonably believes that the estimate determined under clause 7.13.6 was incorrect, it must revise the estimate for use in the Relevant Level Method~~ology~~.

7.13.8. AEMO must develop a WEM Procedure specifying:

(a) the methods that AEMO will use to determine estimates under clause 7.13.6;

(b) the process for revising an estimate under clause 7.13.7; and

(c) the information that a Market Participant must provide to AEMO for each of the Market Participant's Registered Facilities to support the preparation of estimates under clauses 7.13.6 and 7.13.7.

…

Explanatory Note

Settlement calculations have been amended to add calculations for Flexible Capacity payments and cost recovery, and to allow Separately Certified Components within a Facility to have separate Reserve Capacity Prices.

9.8. Settlement Calculations - Reserve Capacity

9.8.1. AEMO must calculate for each Market Participant the Reserve Capacity settlement amount for a Trading Day.

9.8.2. The Reserve Capacity settlement amount for Market Participant p for Trading Day d is:

RC_SA(p,d)

= Peak_Capacity_Provider_Payment(p,d) – Peak_Capacity_Purchaser_Payment(p,d)

+ Flexible_Capacity_Provider_Payment(p,d) – Flexible_Capacity_Purchaser_Payment(p,d)

where:

(a) Peak_Capacity_Provider_Payment(p,d) is calculated in accordance with clause 9.8.3; and

(b) Peak_Capacity_Purchaser_Payment(p,d) is calculated in accordance with clause 9.8.4;

(c) Flexible_Capacity_Provider_Payment(p,d) is calculated in accordance with clause 9.8.6; and

(d) Flexible_Capacity_Purchaser_Payment(p,d) is calculated in accordance with clause 9.8.7.

9.8.3. For the purposes of clause 9.8.2, Peak_Capacity_Provider_Payment(p,d) for Market Participant p for Trading Day d is:

Peak_Capacity_Provider_Payment(p,d)

= Participant_Capacity_Rebate(p,d)

+ Peak_Capacity_Payments(p,d) – Intermittent_Load_Refund(p,d)

+ Peak_Supplementary_Capacity_Payment(p,d) – Peak_Capacity_Cost_Refund(p,d)

+ Peak_Over_Allocation_Payment(p,d)

where:

(a) [Blank]Participant_Capacity_Rebate(p,d) is the Participant Capacity Rebate payable to the Market Participant p for all Trading Intervals in Trading Day d, as determined in accordance with clause 4.29.3(d)(vii);

(b) $Capacity\_Payments(p, d) = \sum f \in F((CC(f, d) - Facility\_CCA(f, d)) \times \text{FDR}CP(f, d))$

$$Peak\_Capacity\_Payments(p,d) = \sum_{f \in SF(p,d) \cup SSF(p,d)} \left(\sum_{scc \in SCC(f,d)} \left((PCC(scc,d) - Component\_PCCA(scc,d)) \times CDPRCP(scc,d) \right) \right) + \sum_{f \in NSF(p,d) \cup DSP(p,d)} \left((PCC(f,d) - Facility\_PCCA(f,d)) \times FDPRCP(f,d) \right)$$

where:

(bA) ~~i.~~ ~~F~~SF(p,d) is the set of all Scheduled Facilities registered to Market Participant p in Trading Day d ~~and f is a Facility within the set~~;

(bB) SSF(p,d) is the set of all Semi-Scheduled Facilities registered to Market Participant p in Trading Day d;

(bB) SCC(f,d) is the set of all Separately Certified Components of Facility f in Trading Day d;

(bC) ~~ii.~~ ~~CC(f,d)~~ PCC(scc,d) is the number of Peak Capacity Credits assigned to Separately Certified Component scc ~~the Facility f, registered to Market Participant p~~, for ~~the~~ Trading Day d;

(bD) ~~iii.~~ ~~Facility_CCA(f,d)~~ Component_PCCA(scc,d) is the sum of the Peak Capacity Credits associated with Separately Certified Component scc ~~the Facility f, registered to Market Participant p,~~ for ~~the~~ Trading Day d that have been allocated in ~~a~~ Capacity Credit Allocations; ~~and~~

(bE) ~~iv.~~ ~~FDRCP(f,d)~~ CDPRCP(scc,d) is the Component ~~Facility~~ Daily Peak Reserve Capacity Price associated with Separately Certified Component scc ~~the Facility f~~ in Trading Day d;

(bF) NSF(p,d) is the set of all Non-Scheduled Facilities registered to Market Participant p in Trading Day d;

(bG) DSP(p,d) is the set of all Demand Side Programmes registered to Market Participant p in Trading Day d;

(bH) PCC(f,d) is the number of Peak Capacity Credits assigned to Facility f for Trading Day d;

(bI) Facility_PCCA(f,d) is the sum of the Peak Capacity Credits associated with Facility f for Trading Day d that have been allocated in Capacity Credit Allocations;

(bJ) FDPRCP(f,d) is the Facility Daily Peak Reserve Capacity Price associated with Facility f in Trading Day d;

(c) Intermittent_Load_Refund(p,d) is the total Intermittent Load Refund payable to AEMO by Market Participant p in respect of each of its Intermittent Loads,

deemed to be an Intermittent Load under clause 1.48.2, for Trading Day d, as determined in accordance with clause 4.29.3(dA);

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

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

(f) Peak_Over_Allocation_Payment(p,d) = max (0, Participant_PCCA(p,d) – PIRCR(p,d)) × Peak_Excess_Allocation_Price(p,d);

(g) Participant_PCCA(p,d) is the sum of Peak Capacity Credits allocated to Market Participant p in Trading Day d in ~~a~~ Capacity Credit Allocations;

(h) PIRCR(p,d) is the Peak Individual Reserve Capacity Requirement for Market Participant p for ~~the Trading Month in which the~~ Trading Day d ~~falls~~, expressed in units of MW;

(i) if Participant_PCCA(p,d)=0, Peak_Excess_Allocation_Price(p,d) = 0~~,~~. Otherwise ~~if Participant_CCA(p,d) = 0; and~~

~~$\sum_{c \in C}$ (CCA(c,d) × FDRCP(f,d)) / $\sum_{c \in C}$PCCA(c) otherwise;~~

$$Peak\_Excess\_Allocation\_Price(p,d) = \frac{\sum_{c \in C(p,d)} \left(\begin{matrix} \sum_{f \in SF(d) \cup SSF(d)} \left(\sum_{scc \in SCC(f,d)} \left(CPCCA(c,scc,p,d) \times CDPRCP(scc,d) \right) \right) \\ + \sum_{f \in NSF(p,d) \cup DSP(p,d)} \left(FPCCA(c,f,p,d) \times FDPRCP(f,d) \right) \end{matrix} \right)}{\sum_{c \in C(p,d)} \left(\begin{matrix} \sum_{f \in SF(d) \cup SSF(d)} \left(\sum_{scc \in SCC(f,d)} \left(CPCCA(c,scc,p,d) \right) \right) \\ + \sum_{f \in NSF(p,d) \cup DSP(p,d)} \left(FPCCA(c,f,p,d) \right) \end{matrix} \right)}$$

(j) C(p,d) is the set of Capacity Credit Allocations made to Market Participant p in Trading Day d and c is a Capacity Credit Allocation within the set; ~~and~~

~~(k) CCA(c,d) is the number of Capacity Credits that have been allocated in a Capacity Credit Allocation c associated with the Facility f to Market Participant p in the Trading Day d.~~

(k) SF(d) is the set of Scheduled Facilities on Trading Day d;

(l) SSF(d) is the set of Semi-Scheduled Facilities on Trading Day d;

(m) SCC(f,d) is the set of Separately Certified Components of Facility f on Trading Day d;

(n) CPCCA(c,scc,p,d) is the number of Peak Capacity Credits associated with Separately Certified Component scc that have been allocated to Market Participant p in Capacity Credit Allocation c in Trading Day d;

(o) CDPRCP(scc,d) is the Component Daily Peak Reserve Capacity Price associated with Separately Certified Component scc in Trading Day d;

(p) NSF(d) is the set of all Non-Scheduled Facilities in Trading Day d;

(g) DSP(d) is the set of all Demand Side Programmes in Trading Day d;

(r) FPCCA(c,f,p,d) is the number of Peak Capacity Credits associated with Facility f that have been allocated to Market Participant p in Capacity Credit Allocation c in Trading Day d; and

(s) FDPRCP(f,d) is the Facility Daily Peak Reserve Capacity Price associated with Facility f in Trading Day d.

9.8.4. For the purposes of clause 9.8.2, Peak Capacity_Purchaser_Payment(p,d) for Market Participant p for Trading Day d is:

Peak Capacity_Purchaser_Payment(p,d) =
Peak Targeted_Reserve_Capacity_Cost(p,d) +
Peak Shared_Reserve_Capacity_Cost(p,d)

where:

(a) Peak Targeted_Reserve_Capacity_Cost(p,d) =
Peak Targeted_Reserve_Capacity_Cost(d) × Peak Shortfall_Share(p,d)

(b) Peak Shared_Reserve_Capacity_Cost(p,d) =
Peak Shared_Reserve_Capacity_Cost(d) × Peak Capacity_Share(p,d)

(c) Peak Targeted_Reserve_Capacity_Cost(d) is the cost of Peak Capacity ~~Reserve Capacity~~ to be shared amongst those Market Participants who have not had sufficient Peak Capacity Credits allocated to them for Trading Day d where this cost is specified under clause 4.29.3(b);

(d) Peak Shortfall_Share(p,d) = (max(0, PIRCR(p,d) – Participant_PCCA(p,d))) / ∑p∈P(max(0, PIRCR(p,d) – Participant_PCCA(p,d)))

(e) Peak Shared_Reserve_Capacity_Cost(d) is the cost of Peak Capacity ~~Reserve Capacity~~ to be shared amongst all Market Participants for Trading Day d where this cost is specified under clause 4.29.3(c);

(f) Peak Capacity_Share(p,d) = PIRCR(p,d) / $\sum_{p \in P}$PIRCR(p,d)

(g) P is the set of all Market Participants where p is a member of that set;

(h) PIRCR(p,d) is the Peak Individual Reserve Capacity Requirement for Market Participant p for ~~the Trading Month in which the~~ Trading Day d ~~falls~~, expressed in units of MW; and

(i) Participant_PCCA(p,d) is the sum of the Peak Capacity Credits allocated to Market Participant p in ~~the~~ Trading Day d, in a Capacity Credit Allocation.

9.8.5. The net payment to be made by AEMO under a Supplementary Capacity Contract to a person who is not a Market Participant will be settled by AEMO in accordance with contract conditions which are not required to be consistent with other settlement processes or prudential processes under these WEM Rules.

9.8.6. For the purposes of clause 9.8.2, Flexible Capacity Provider Payment(p,d) for Market Participant p for Trading Day d is:

Flexible_Capacity_Provider_Payment(p,d)

= Flexible_Capacity_Payments(p,d) + Flexible_Supplementary_Capacity_Payment(p,d)

– Flexible_Capacity_Cost_Refund(p,d) + Flexible_Over_Allocation_Payment(p,d)

where:

Explanatory Note

The price used for Flexible Capacity Payments is the difference between the Flexible Capacity Price and the Peak Capacity Price.

(a)

$$Flexible\_Capacity\_Payments(p,d) = \sum_{f \in SF(p,d) \cup SSF(p,d)} \left(\sum_{scc \in SCC(f,d)} \left((FCC(scc,d) - Component\_FCCA(scc,d)) \times CDFRCP(scc,d) \right) \right) + \sum_{f \in DSP(p,d)} \left((FCC(f,d) - Facility\_FCCA(f,d)) \times FDFRCP(f,d) \right)$$

(b) SF(p,d) is the set of all Scheduled Facilities registered to Market Participant p in Trading Day d;

(c) SSF(p,d) is the set of all Semi-Scheduled Facilities registered to Market Participant p in Trading Day d;

(d) SCC(f,d) is the set of all Separately Certified Components of Facility f in Trading Day d;

(e) FCC(scc,d) is the number of Flexible Capacity Credits assigned to Separately Certified Component scc for Trading Day d;

(f) Component_FCCA(scc,d) is the sum of the Flexible Capacity Credits associated with Separately Certified Component scc for Trading Day d that have been allocated in a Capacity Credit Allocation;

(g) CDFRCP(scc,d) is the Component Daily Flexible Reserve Capacity Price associated with Separately Certified Component scc in Trading Day d;

(h) DSP(p,d) is the set of all Demand Side Programmes registered to Market Participant p in Trading Day d;

(i) FCC(f,d) is the number of Flexible Capacity Credits assigned to Facility f for Trading Day d;

(j) Facility_FCCA(f,d) is the sum of the Flexible Capacity Credits associated with Facility f for Trading Day d that have been allocated in a Capacity Credit Allocation;

(k) FDFRCP(f,d) is the Component Daily Flexible Reserve Capacity Price associated with Facility f in Trading Day d;

(l) Flexible_Supplementary_Capacity_Payment(p,d) is the net payment to be made by AEMO under a Supplementary Capacity Contract to Market Participant p for Trading Day d, as specified by AEMO in accordance with clause 4.29.3(e)(i), for a contract relating solely to Flexible Capacity as specified by AEMO in accordance with clause 4.29.3(e)(iii);

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

(n) Flexible_Over_Allocation_Payment(p,d) = max (0, Participant_FCCA(p,d) – FIRCR(p,d)) × Flexible_Excess_Allocation_Price(p,d);

(o) Participant_FCCA(p,d) is the sum of Flexible Capacity Credits allocated to Market Participant p in Trading Day d in Capacity Credit Allocations;

(p) FIRCR(p,d) is the Flexible Individual Reserve Capacity Requirement for Market Participant p for Trading Day d, expressed in units of MW;

(q) if Participant_FCCA(p,d) = 0, Flexible_Excess_Allocation_Price(p,d) = 0. Otherwise:

$$Flexible\_Excess\_Allocation\_Price(p,d) = \frac{\sum_{c \in C(p,d)} \left(\begin{array}{c} \sum_{f \in SF(d) \cup SSF(d)} \left(\sum_{scc \in SCC(f,d)} \left(CFCCA(c,scc,p,d) \times CDFRCP(scc,d) \right) \right) \\ + \sum_{f \in DSP(p,d)} \left(FFCCA(c,f,p,d) \times FDFRCP(f,d) \right) \end{array} \right)}{\sum_{c \in C(p,d)} \left(\begin{array}{c} \sum_{f \in SF(d) \cup SSF(d)} \left(\sum_{scc \in SCC(f,d)} \left(CFCCA(c,scc,p,d) \right) \right) \\ + \sum_{f \in DSP(p,d)} \left(FFCCA(c,f,p,d) \right) \end{array} \right)}$$

(r) C(p,d) is the set of Capacity Credit Allocations made to Market Participant p in Trading Day d and c is a Capacity Credit Allocation within the set;

(s) SF(d) is the set of Scheduled Facilities on Trading Day d;

(t) SSF(d) is the set of Semi-Scheduled Facilities on Trading Day d;

(u) SCC(f,d) is the set of Separately Certified Components of Facility f on Trading Day d;

(v) CFCCA(c,scc,p,d) is the number of Flexible Capacity Credits associated with Separately Certified Component scc that have been allocated to Market Participant p in Capacity Credit Allocation c in Trading Day d;

(w) CDFRCP(scc,d) is the Component Daily Flexible Reserve Capacity Price associated with Separately Certified Component scc in Trading Day d;

(x) DSP(d) is the set of all Demand Side Programmes in Trading Day d;

(y) FFCCA(c,f,p,d) is the number of Flexible Capacity Credits associated with Facility f that have been allocated to Market Participant p in Capacity Credit Allocation c in Trading Day d; and

(z) FDFRCP(f,d) is the Facility Daily Flexible Reserve Capacity Price associated with Facility f in Trading Day d.

9.8.7. For the purposes of clause 9.8.2, Flexible_Capacity_Purchaser_Payment(p,d) for Market Participant p for Trading Day d is:

Flexible_Capacity_Purchaser_Payment(p,d) =
Flexible_Targeted_Reserve_Capacity_Cost(p,d) +
Flexible_Shared_Reserve_Capacity_Cost(p,d)

where:

(a) Flexible_Targeted_Reserve_Capacity_Cost(p,d) =
Flexible_Targeted_Reserve_Capacity_Cost(d) × Flexible_Shortfall_Share(p,d)

(b) Flexible_Shared_Reserve_Capacity_Cost(p,d) =
Flexible_Shared_Reserve_Capacity_Cost(d) × Flexible_Capacity_Share(p,d)

(c) Flexible_Targeted_Reserve_Capacity_Cost(d) is the cost of Flexible Capacity to be shared amongst those Market Participants who have not had sufficient Flexible Capacity Credits allocated to them for Trading Day d where this cost is specified under clause 4.29.3(bA);

(d) Flexible_Shortfall_Share(p,d) = (max(0, FIRCR(p,d) – Participant_FCCA(p,d))) / ∑p∈P(max(0, FIRCR(p,d) – Participant_FCCA(p,d)))

(e) Flexible_Shared_Reserve_Capacity_Cost(d) is the cost of Flexible Capacity to be shared amongst all Market Participants for Trading Day d where this cost is specified under clause 4.29.3(cA);

(f) Flexible_Capacity_Share(p,d) = FIRCR(p,d) / $\sum_{p \in P}$FIRCR(p,d)

(g) P is the set of all Market Participants where p is a member of that set;

(h) FIRCR(p,d) is the Flexible Individual Reserve Capacity Requirement for Market Participant p for Trading Day d, expressed in units of MW; and

(i) Participant_FCCA(p,d) is the sum of the Flexible Capacity Credits allocated to Market Participant p in Trading Day d, in a Capacity Credit Allocation.

…

11. Glossary

Explanatory Note

Many terms that previously related to the single reserve capacity service have been redefined to refer to both capacity services, and new definitions added specific to each service.

Generally the new definitions have the same name as the old definition, but with “Peak” or “Flexible” at the beginning. This approach has been adopted for ease of reference, even where it may feel grammatically incorrect (eg Peak Benchmark Reserve Capacity Price and Flexible Individual Reserve Capacity Requirement instead of Benchmark Peak Reserve Capacity Price and Individual Flexible Reserve Capacity Requirement).

The definition for the Peak Capacity service is usually drawn from the old single service definition.

These rules have not yet undergone legal review, and this approach may still be adjusted.

~~**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.~~

2022 Reserve Capacity Cycle: Means the Reserve Capacity Cycle:

(a) in which Year 1 of that Reserve Capacity Cycle is 2022; and

(b) which relates to Reserve Capacity required between 1 October 2024 and 1 October 2025.

3 High-Ramp Trading Days: For a Trading Month, means the three Trading Days with the highest Four-Hour Demand Increase, as published by AEMO under clause 4.1.23BA.

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

Additional Reduction Payment Amount: For a Demand Side Programme in a Trading Day, the amount calculated by AEMO under clause 4.25.5CC(i).

Allocated Refund Amount: For a Demand Side Programme in a Trading Day, the capacity refunds that have been used to calculate the Peak Capacity Credit Reduction Payment for that Trading Day, as calculated by AEMO under clause 4.25.4CC(h).

~~**Availability Class**: Means the annual availability of Certified Reserve Capacity set out in clause 4.5.12, as either Availability Class 1 or Availability Class 2, as applicable.~~

~~**Availability Class 1**: The Availability Class assigned by AEMO to a facility containing an Intermittent Generating System or Non-Intermittent Generating System, and any other facility~~

~~that is expected to be available to be dispatched for all Trading Intervals in a Capacity Year, under clause 4.11.4(a).~~

~~**Availability Class 2**: The Availability Class assigned by AEMO to Certified Reserve Capacity that is not expected to be available to be dispatched for all Trading Intervals in a Capacity Year, under clause 4.11.4(b).~~

Availability Curve: A curve developed by AEMO under clause 4.5.10(e).

Availability Duration Gap: for a Capacity Year, the value most recently determined by AEMO under clause 4.5.12(d).

Availability Duration Gap Load Scenario: for a Capacity Year, the load scenario determined by AEMO under clause 4.5.12(a).

AZ: Means the ratio of excess Reserve Capacity to ~~the~~ a Reserve Capacity Requirement for a Reserve Capacity Cycle that is determined to be sufficiently high for the relevant Reserve Capacity Price to be zero.

Benchmark Reserve Capacity Price: In respect of a Reserve Capacity Cycle, the Peak Benchmark Reserve Capacity Price or the Flexible Benchmark Reserve Capacity Price~~price published by the Economic Regulation Authority under clause 4.16.1~~.

Benchmark Capacity Provider: The Benchmark Flexible Capacity Provider or the Benchmark Peak Capacity Provider.

BRCP Cap Factor: Means the ratio of a ~~the~~ Reserve Capacity Price to the relevant Benchmark Reserve Capacity Price for a Reserve Capacity Cycle if there was to be no excess Peak Capacity or Flexible Capacity as applicable ~~Reserve Capacity~~ in that Reserve Capacity Cycle.

Benchmark Flexible Capacity Provider: A notional new entrant facility based on the technology which is expected to be able to provide Flexible Capacity at the lowest annual capital cost.

Benchmark Peak Capacity Provider: A notional new entrant facility based on the technology which is expected to be able to provide Peak Capacity at the lowest annual capital cost.

Candidate Fixed Price Component: Means a Separately Certified Component that has been nominated to be classified as a Fixed Price Facility in accordance with clause 4.14.1B.

Candidate Fixed Price Facility: Means a Facility that has been nominated to be classified as a Fixed Price Facility in accordance with clause 4.14.1B.

Capability Class: Means the class of Peak Certified Reserve Capacity set out in clause 4.5.12, as either Capability Class 1, Capability Class 2, or Capability Class 3, as applicable.

Capability Class 1: The Capability Class assigned by AEMO under clause 4.11.4(a) to a Facility or Separately Certified Component of a Facility, that:

(a) is registered as, or is expected to be registered as, either a Scheduled Facility or a Demand Side Programme; and

(b) allowing for Outages, is reasonably expected to be available for Injection in all Trading Intervals in a Capacity Year.

Capability Class 1 Availability Assessment Duration: 28 Trading Intervals.

Capability Class 1 Availability Assessment Interval: A Trading Interval defined by AEMO under clause 4.11.3A(aB).

Capability Class 2: The Capability Class assigned by AEMO under clause 4.11.4(b) to a Facility, or Separately Certified Component of a Facility, that:

(a) is registered as, or is expected to be registered as, either a Scheduled Facility or a Demand Side Programme; and

(b) has energy or availability limitations such that it is not expected to be available to be dispatched for all Trading Intervals in a Capacity Year.

Capability Class 3: The Capability Class assigned by AEMO under clause 4.11.4(c) to a Facility, or Separately Certified Component of a Facility, that is registered as, or is expected to be registered, as a Semi-Scheduled Facility or a Non-Scheduled Facility.

~~**Capacity Adjusted Forced Outage Quantity:** Means, the quantity, in MW, of the derating of a Facility or Separately Certified Component in a Dispatch Interval or Trading Interval from the Reserve Capacity Obligation Quantity for the Facility or Separately Certified Component as determined by AEMO in accordance with:~~

~~(a) for a Separately Certified Component in a Dispatch Interval, the formula in clause 3.21.7;~~

~~(b) for a Separately Certified Component in a Trading Interval, the formula in clause 3.21.7A;~~

~~(c) for a Facility in a Trading Interval, the formula in clause 3.21.7B; and~~

~~(d) for a Facility in a Dispatch Interval, the formula in clause 3.21.7C.~~

~~**Capacity Adjusted Planned Outage Quantity:** Means, the quantity, in MW, of the derating of a Facility or Separately Certified Component in a Dispatch Interval or Trading Interval from the Reserve Capacity Obligation Quantity for the Facility or Separately Certified Component as determined by AEMO in accordance with:~~

~~(a) for a Separately Certified Component in a Dispatch Interval, the formula in clause 3.21.8;~~

~~(b) for a Separately Certified Component in a Trading Interval, the formula in clause 3.21.8A;~~

~~(c) for a Facility in a Trading Interval, the formula in clause 3.21.8B; and~~

~~(d) for a Facility in a Dispatch Interval, the formula in clause 3.21.8C.~~

~~**Capacity Cost Refund**: Has the meaning given in clause 4.26.2E.~~

Capacity Credit: A Peak Capacity Credit or a Flexible Capacity Credit. ~~notional unit of Reserve Capacity provided by a Facility during a Capacity Year. The total number of Capacity Credits provided by a Facility is determined in accordance with section 4.20. Each Capacity Credit is equivalent to 1MW of Reserve Capacity. The Capacity Credits to be provided by a Facility are held by the Market Participant registered in respect of that Facility. The number of Capacity Credits to be provided by a Facility may be reduced in certain circumstances under the WEM Rules, including under clause 4.25.4 or adjusted under clause 4.25.6.~~

Capacity Credit Allocation: The allocation of a number of Capacity Credits held by a Market Participant for a Facility to a Market Participant for a Trading Day for settlement purposes through the allocation process in section 4.30.

Capacity Credit Allocation Submission: A submission from a Market Participant to AEMO made in accordance with clauses 4.30.1 and 4.30.3 to allocate Capacity Credits to a single Market Participant.

Certified Reserve Capacity: Peak Certified Reserve Capacity or Flexible Certified Reserve Capacity. ~~For a Facility, and in respect of a Reserve Capacity Cycle, is the quantity of Reserve Capacity that AEMO has assigned to the Facility for the Reserve Capacity Cycle in accordance with clause 4.11, as adjusted under these WEM Rules including clause 4.14.8. Certified Reserve Capacity assigned to a Facility registered by a Market Participant is held by that Facility.~~

Component Daily Flexible Reserve Capacity Price: Means the Component Monthly Flexible Reserve Capacity Price for a Separately Certified Component as determined in accordance with clause 4.29.1F, divided by the number of Trading Days in the relevant Trading Month.

Component Daily Peak Reserve Capacity Price: Means the Component Monthly Peak Reserve Capacity Price for a Separately Certified Component as determined in accordance with clause 4.29.1A, divided by the number of Trading Days in the relevant Trading Month.

Component Daily Reserve Capacity Price: The Component Daily Flexible Reserve Capacity Price or the Component Daily Peak Capacity Price.

Component Monthly Flexible Reserve Capacity Price: Means the dollar price per Flexible Capacity Credit per Trading Month calculated in respect of a Separately Certified Component in accordance with clause 4.29.1F.

Component Monthly Peak Reserve Capacity Price: Means the dollar price per Peak Capacity Credit per Trading Month calculated in respect of a Separately Certified Component in accordance with clause 4.29.1A.

Component Monthly Reserve Capacity Price: The Component Monthly Flexible Reserve Capacity Price or the Component Monthly Peak Reserve Capacity Price.

Conditional Certified Reserve Capacity: Has the meaning given in clause 4.9.5.

~~**Consumption Deviation Application:** An application submitted by a Market Participant to AEMO under clause 4.26.2CB(a) or clause 4.28.9A, notifying AEMO and providing evidence that the consumption of a Load was affected.~~

Cumulative Allocated Refund Amount: For a Demand Side Programme in a Trading Day, the total capacity refunds that have been used in calculating a Peak Capacity Credit Reduction Payment, as calculated by AEMO under clause 4.25.4CC(g).

Default Peak Electric Storage Resource Obligation Intervals: For a Trading Day in a Capacity Year, the set of contiguous Trading Intervals starting with the First Peak Electric Storage Resource Obligation Interval for that Trading Day, and including the number of Trading Intervals in the ESR Duration Requirement for that Capacity Year.

~~**Deemed DSM Dispatch:** The quantity (in MWh) for a Demand Side Programme for a Trading Interval equal to the least of:~~

~~(a) half of the Facility's Capacity Credits;~~

~~(b) the requested decrease in consumption specified under clause 7.13.1(eG); and~~

~~(c) the greater of zero and the difference between:~~

~~i. half of the Relevant Demand set in clause 4.26.2CA; and~~

~~ii. the Demand Side Programme Load measured in the Trading Interval, adjusted to add back any Further DSM Consumption Decrease.~~

~~**Demand Side Programme Capacity Cost Refund:** Has the meaning given in clause 4.26.3A.~~

Demand Side Programme Dispatch Requirement: For a Reserve Capacity Cycle, the number of Trading Intervals which a Demand Side Programme can be dispatched, which is:

(a) for Reserve Capacity Cycles up to and including the 2022 Reserve Capacity Cycle, 400 Trading Intervals;

(b) for Reserve Capacity Cycles after 2022, the value published by AEMO under clause 4.5.12(f) for Year 3 of the Reserve Capacity Cycle.

~~DSM~~ DSP **Reserve Capacity Security**: The reserve capacity security to be provided for a Demand Side Programme that:

(a) has the meaning given in clause 4.13A.6; and

(b) is as calculated and re-calculated under section 4.13A.

Early Certified Reserve Capacity: Reserve Capacity which is certified and assigned to a new Facility by AEMO for a future Reserve Capacity Cycle under clause 4.28C, which may be Peak Certified Reserve Capacity or both Peak Certified Reserve Capacity and Flexible Certified Reserve Capacity.

~~**Electric Storage Resource Obligation Duration**: The eight contiguous Electric Storage Resource Obligation Intervals which apply each Trading Day and commence at the time published by AEMO in accordance with clause 4.11.3A.~~

~~**Electric Storage Resource Obligation Interval**: A Trading Interval, that AEMO has determined in accordance with the WEM Procedure referred to in clause 4.11.3A, in which a non-zero Reserve Capacity Obligation Quantity is applied to an Electric Storage Resource.~~

~~**Electric Storage Resource Obligation Quantity**: The specific amount of capacity required to be provided in a Trading Interval as part of a Reserve Capacity Obligation for an Electric Storage Resource set by AEMO in accordance with clauses 4.12.14 and 4.12.14A as adjusted from time to time in accordance with these WEM Rules, including under clause 4.12.6.~~

Eligible Services: Peak Eligible Services or Flexible Eligible Services. ~~Has the meaning given in clause 4.24.3.~~

~~**ESR Charge Shortfall**: The MW quantity of capacity of a Scheduled Facility or Semi-Scheduled Facility that is subject to a capacity refund in a Trading Interval due to the inadequate Charge Level of an Electric Storage Resource, calculated in accordance with clause 4.26.1E.~~

ESR Duration Requirement: For a Reserve Capacity Cycle, the number of Trading Intervals in each Trading Day to be designated as Peak Electric Storage Resource Obligation Intervals for Electric Storage Resources first allocated Peak Capacity Credits in that Reserve Capacity Cycle, which is:

(a) for Reserve Capacity Cycles up to and including the 2022 Reserve Capacity Cycle, eight Trading Intervals;

(b) for Reserve Capacity Cycles after 2022, the value published by AEMO under clause 4.5.12(c) for Year 3 of the Reserve Capacity Cycle.

~~**Excess Allocation Price**: For a Market Participant is as calculated in accordance with clause 9.8.3(i).~~

~~**Existing Facility Load for Scheduled Generation**: Means the MWh quantity determined for a Trading Interval under step 7 of the Relevant Level Methodology.~~

EZ: Means the ratio of excess Reserve Capacity to ~~the~~ a Reserve Capacity Requirement for a Reserve Capacity Cycle at which no additional resources should enter the market under a very wide range of market conditions.

EZ BRCP Factor: Means the ratio of ~~the~~ a Reserve Capacity Price to the relevant Benchmark Reserve Capacity Price for a Reserve Capacity Cycle if the ratio of excess Reserve Capacity to the relevant Reserve Capacity Requirement for a Reserve Capacity Cycle was equal to EZ in that Reserve Capacity Cycle.

Facility Daily Flexible Reserve Capacity Price: Means the Facility Monthly Flexible Reserve Capacity Price for a Facility as determined in accordance with clause 4.29.1G, divided by the number of Trading Days in the relevant Trading Month.

Facility Daily Peak Reserve Capacity Price: Means the Facility Monthly Flexible Reserve Capacity Price for a Facility as determined in accordance with clause 4.29.1AA, divided by the number of Trading Days in the relevant Trading Month.

Facility Daily Reserve Capacity Price: The Facility Daily Flexible Reserve Capacity Price or the Facility Daily Peak Reserve Capacity Price. ~~The Facility Monthly Reserve Capacity Price for a Facility as determined in accordance with clause 4.29.1A, divided by the number of Trading Days in the relevant Trading Month.~~

Facility Maximum Peak Refund Factor: For a Facility:

(a) if the Facility is a Demand Side Programme, 1.25;

(b) otherwise, 1.

Facility Monthly Flexible Reserve Capacity Price: Means the dollar price per Flexible Capacity Credit per Trading Month calculated in respect of a Demand Side Programme in accordance with clause 4.29.1G.

Facility Monthly Peak Reserve Capacity Price: Means the dollar price per Peak Capacity Credit per Trading Month calculated in respect of a Non-Scheduled Facility or a Demand Side Programme in accordance with clause 4.29.1AA.

Facility Monthly Reserve Capacity Price: For a Non-Scheduled Facility or Demand Side Programme, the Facility Monthly Flexible Reserve Capacity Price or the Facility Monhtly Peak Reserve Capacity Price. ~~Means the dollar price per Capacity Credit per Trading Month calculated in respect of a Facility in accordance with clause 4.29.1A.~~

First Peak Electric Storage Resource Obligation Interval: For a Trading Day, the Trading Interval that AEMO has determined, in accordance with the WEM Procedure referred to in clause 4.11.3A, to be the first Peak Electric Storage Resource Obligation Interval for all Electric Storage Resources.

Fixed Price Component: Means a Separately Certified Component that was assigned Capacity Credits for a Reserve Capacity Cycle in which it nominated in accordance with clause 4.14.1B to be classified as a Fixed Price Component.

Fixed Price Facility: Means a Non-Scheduled Facility ~~Candidate Fixed Price Facility~~ that was assigned Capacity Credits for a Reserve Capacity Cycle in which it nominated in accordance with clause 4.14.1B to be classified as a Fixed Price Facility.

Fixed Price Reserve Capacity Cycle: Means, for a Fixed Price Facility or Fixed Price Component~~, which is either~~:

(a) the Reserve Capacity Cycle in which the Fixed Price Facility or Fixed Price Component was first assigned Capacity Credits; ~~or~~ and

(b) any of the subsequent four Reserve Capacity Cycles.

Flexible Benchmark Reserve Capacity Price: In respect of a Reserve Capacity Cycle, the price published by the Economic Regulation Authority under clause 4.16.8.

Flexible Capacity: Reserve Capacity that meets the requirements determined under clause 4.10.1A for the relevant Reserve Capacity Cycle, such that it is able to respond at very short notice to manage variations in load and Intermittent Generating System output during high ramp periods.

Flexible Capacity Adjusted Forced Outage Quantity: Means, the quantity, in MW, of the derating of a Facility or Separately Certified Component in a Dispatch Interval or Trading Interval from the Flexible Reserve Capacity Obligation Quantity for the Facility or Separately Certified Component as determined by AEMO in accordance with:

(a) for a Separately Certified Component in a Dispatch Interval, the formula in clause 3.21.12;

(b) for a Separately Certified Component in a Trading Interval, the formula in clause 3.21.13;

(c) for a Facility in a Trading Interval, the formula in clause 3.21.14; and

(d) for a Facility in a Dispatch Interval, the formula in clause 3.21.15.

Flexible Capacity Adjusted Planned Outage Quantity: Means, the quantity, in MW, of the derating of a Facility or Separately Certified Component in a Dispatch Interval or Trading Interval from the Flexible Reserve Capacity Obligation Quantity for the Facility or Separately Certified Component as determined by AEMO in accordance with:

(a) for a Separately Certified Component in a Dispatch Interval, the formula in clause 3.21.16;

(b) for a Separately Certified Component in a Trading Interval, the formula in clause 3.21.17;

(c) for a Facility in a Trading Interval, the formula in clause 3.21.18; and

(d) for a Facility in a Dispatch Interval, the formula in clause 3.21.19.

Flexible Capacity Cost Refund: Has the meaning given in clause 4.26.15.

Flexible Capacity Credit: A notional unit of Flexible Capacity provided by a Facility during a Capacity Year. Each Flexible Capacity Credit is equivalent to 1MW of Flexible Capacity. The Flexible Capacity Credits associated with a Facility are held by the Market Participant registered in respect of that Facility.

Flexible Certified Reserve Capacity: For a Facility, and in respect of a Reserve Capacity Cycle, the quantity of Flexible Capacity that AEMO has assigned to the Facility for the Reserve Capacity Cycle in accordance with clause 4.11, as adjusted under these WEM Rules including clause 4.14.8. Flexible Reserve Capacity assigned to a Facility registered by a Market Participant is held by that Facility.

Flexible Capacity Obligation Duration: 8 Trading Intervals.

Flexible Capacity Outage Quantity: The quantity, in MW, of the derating of a Separately Certified Component in a Dispatch Interval as a result of a Planned Outage or Forced Outage for Flexible Capacity, determined in accordance with clause 3.21.11.

Flexible Demand Side Programme Capacity Cost Refund: Has the meaning given in clause 4.26.18.

Flexible DSP Test Shortfall: For a Demand Side Programme in a Trading Interval, the quantity in MW by which it failed a Reserve Capacity Test for Flexible Capacity, calculated under clause 4.25.3E, clause 4.25.3G(b) or clause 4.25.6(b)(ii);

Flexible Electric Storage Resource Obligation Interval: A Trading Interval determined in accordance with clause 4.11.3A(c), in which a non-zero Flexible Reserve Capacity Obligation Quantity is applied to a Facility component which holds Flexible Capacity Credits.

Flexible Eligible Services: Has the meaning given in clause 4.24.3A.

Flexible ESR Charge Shortfall: The MW quantity of capacity of a Scheduled Facility or Semi-Scheduled Facility that is subject to a capacity refund in a Trading Interval due to the inadequate Charge Level of an Electric Storage Resource, calculated in accordance with clause 4.26.9.

Flexible Excess Allocation Price: For a Market Participant is as calculated in accordance with clause 9.8.6(i).

Flexible Generation Capacity Cost Refund: Has the meaning given in clause 4.26.17.

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

Flexible IRCR Intervals: For a Capacity Year, the Trading Intervals determined by AEMO under clause 4.1.23AA.

Flexible Not In-Service Capacity Refund Quantity: The MW quantity of Not In-Service Capacity of a Scheduled Facility or Semi-Scheduled Facility that is subject to a Peak Capacity refund in a Trading Interval, calculated in accordance with clause 4.26.8.

Flexible Real-Time Market Offer Shortfall: Has the meaning given in clause 4.26.11.

Flexible Real-Time Market Reserve Capacity Deficit: Has the meaning given in clause 4.26.5.

Flexible Refund Exempt Planned Outage Count: In respect of a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility and a period of time, the sum over all Trading Intervals in that period of:

(a) if no Flexible Capacity Credits were associated with the Separately Certified Component in the Trading Interval, zero; or

(b) otherwise, the total Flexible Refund Exempt Planned Outage Quantity determined by AEMO for the Separately Certified Component in the Trading Interval under clauses 4.26.1C or 4.26.1CA, divided by the number of Flexible Capacity Credits associated with the Separately Certified Component in the Trading Interval.

Flexible Refund Exempt Planned Outage Quantity: A Flexible Capacity Adjusted Planned Outage Quantity for a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility in a Trading Interval for which a Flexible Facility Reserve Capacity Deficit Refund is not payable, as determined by AEMO under clauses 4.26.6 or 4.26.7.

Flexible Refund Payable Planned Outage Quantity: A Flexible Capacity Adjusted Planned Outage Quantity for a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility in a Trading Interval for which a Flexible Facility Reserve Capacity Deficit Refund is payable, as determined by AEMO under clauses 4.26.6 or 4.26.7.

Flexible Reserve Capacity Deficit: Has the meaning given in clause 4.26.4.

Flexible Reserve Capacity Price: In respect of a Reserve Capacity Cycle, the price for Flexible Capacity determined in accordance with clause 4.29.1, where this price is expressed in units of dollars per Flexible Capacity Credit per year.

Flexible Reserve Capacity Requirement: Has the meaning given in clause 4.6.1A.

Flexible Reserve Capacity Target: In respect of a Capacity Year, AEMO's estimate of the total amount of Flexible Capacity required in the SWIS to satisfy clause 4.5.9(c) for that Capacity Year determined in accordance with clause 4.5.10(bA).

Flexible Shared Reserve Capacity Cost: The amount determined in accordance with clause 4.28.4A.

Flexible Targeted Reserve Capacity Cost: The cost defined under clause 4.28.1A(a).

Flexible Trading Interval Capacity Cost Refund: The refund a Market Participant holding Flexible Capacity Credits incurs in a Trading Interval, as calculated in accordance with clause 4.26.16.

Flexible Trading Interval Refund Rate: The Flexible Capacity refund rate applicable in a Trading Interval, and in respect of a Facility, as calculated in accordance with clause 4.26.1(h).

Forced Outage Threshold: The Forced Outage rate above which a Facility will have its historical Forced Outage rate reflected in its Certified Reserve Capacity, which is 10%.

Four-Hour Demand Increase: For a Trading Interval:

$$\mathrm{FHDI}_t = (\mathrm{OPDEM}_t - |\mathrm{OPWITH}_t|) - (\mathrm{OPDEM}_{t-8} - |\mathrm{OPWITH}_{t-8}|)$$

where:

FHDI_t is the Four-Hour Demand Increase for Trading Interval t;

OPDEM_t is the Operational Demand for Trading Interval t;

OPWITH_t is the Operational Withdrawal for Trading Interval t.

~~**Generation Capacity Cost Refund:** Has the meaning given in clause 4.26.3.~~

IML Trading Interval Refund Rate: The Peak Capacity refund rate applicable in a Trading Interval, and in respect of an Intermittent Load, as calculated in accordance with clause 4.28A.1A.

Indicative Demand Side Programme Dispatch Threshold: For a Reserve Capacity Cycle, the value published by AEMO under clause 4.5.12(e) for Year 3 of the Reserve Capacity Cycle.

Indicative Flexible Individual Reserve Capacity Requirement: Means the estimate of a Market Participant's Flexible Individual Reserve Capacity Requirement determined and provided to that Market Participant by AEMO in accordance with clause 4.28.6A.

Indicative Peak Electric Storage Resource Obligation Intervals: For a Trading Day in a Capacity Year, the set of contiguous Trading Intervals starting with the First Peak Electric Storage Resource Obligation Interval for that Trading Day, and including the number of Trading Intervals in the ESR Duration Requirement for the previous Capacity Year.

Indicative Peak Individual Reserve Capacity Requirement: Means the estimate of a Market Participant's Peak Individual Reserve Capacity Requirement determined and provided to that Market Participant 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 to which clause 1.48.2 applies for a Trading Month determined in accordance with Appendix 4A.~~

Individual Reserve Capacity Requirement: A Peak Individual Reserve Capacity Requirement or a Flexible Individual Reserve Capacity Requirement~~The MW quantity determined by AEMO in respect of a Market Participant, 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 Participant's Indicative Individual Reserve Capacity Requirement determined in accordance with Step 11 of Appendix 5.~~

Explanatory Note

The Linearly Derating Capacity for an Electric Storage Resource depends on the duration requirement, which is fixed for the first five years after commissioning.

Linearly Derating Capacity: The maximum capacity, in MW, of an Electric Storage Resource that can be guaranteed to be available over the Peak Electric Storage Resource Obligation Duration, being the minimum of:

(a) the nameplate capacity; and

(b) the maximum Charge Level capability (in MWh) divided by half the number of Trading Intervals in the Peak Electric Storage Resource Obligation Duration~~4 hours~~, being the maximum sustainable MW capacity, which could be delivered continuously across the Peak Electric Storage Resource Obligation Duration.

Long Term PASA: A PASA study conducted in accordance with clause 4.5 in order to determine the Reserve Capacity Targets and Availability Duration Gap for each year in the Long Term PASA Study Horizon and prepare the Statement of Opportunities Report for a Reserve Capacity Cycle.

Maximum Flexible Facility Refund: The total amount of the Flexible Capacity Credit payments paid or to be paid under these WEM Rules to a Market Participant in relation to a Facility and in relation to a Capacity Year assuming that:

(a) AEMO acquires all of the Flexible Capacity Credits held by the Market Participant in relation to its Facility; and

(b) the cost of each Flexible Capacity Credit so acquired is determined in accordance with clause 4.28.2(d).

Explanatory Note

The maximum peak capacity refund for a DSP is now 125% of its potential peak capacity payments for the year.

Maximum Peak Facility Refund: The Facility Maximum Peak Refund Factor multiplied by the total amount of the Peak Capacity Credit payments paid or to be paid under these WEM Rules to a Market Participant in relation to a Facility and in relation to a Capacity Year assuming that:

(a) AEMO acquires all of the Peak Capacity Credits held by the Market Participant in relation to its Facility; and

(b) the cost of each Peak Capacity Credit so acquired is determined in accordance with clause 4.28.2(d).

Maximum Flexible Participant Generation Refund: The total amount of the Flexible Capacity Credit payments paid or to be paid under these WEM Rules to a Market Participant in relation to its Facilities (other than Facilities with a Facility Class or indicative Facility Class of Demand Side Programme) and in relation to a Capacity Year assuming that:

(a) AEMO acquires all of the Flexible Capacity Credits held by the Market Participant in relation to those Facilities; and

(b) the cost of each Flexible Capacity Credit so acquired is determined in accordance with clause 4.28.2(d).

Maximum Peak Participant Generation Refund: The total amount of the Peak Capacity Credit payments paid or to be paid under these WEM Rules to a Market Participant in relation to its Facilities (other than Facilities with a Facility Class or indicative Facility Class of Demand Side Programme) and in relation to a Capacity Year assuming that:

(a) AEMO acquires all of the Peak Capacity Credits held by the Market Participant in relation to those Facilities; and

(b) the cost of each Peak Capacity Credit so acquired is determined in accordance with clause 4.28.2(d).

Minimum Capacity Credits Quantity: The minimum quantity of Peak Capacity Credits a Market Participant requires to be assigned to a Facility or upgrade to the Facility for a Reserve Capacity Cycle for the Facility or upgrade to the Facility to participate in the Reserve Capacity Cycle, as notified to AEMO under clause 4.14.1D.

New Notional Wholesale Meter: A notional interval meter representing Non-Dispatchable Loads without interval meters that are served by Synergy which are new since the end of the previous Hot Season.

~~**New Facility Load for Scheduled Generation**: Means, for a new or upgraded Facility that has applied to be assigned Certified Reserve Capacity under clause 4.11.2(b), the MWh quantity determined for a Trading Interval under step 11 of the Relevant Level Methodology for that Facility and the relevant Reserve Capacity Cycle.~~

~~**Non-Temperature Dependent Load**: A Non-Dispatchable Load accepted by AEMO as a Non-Temperature Dependent Load under clause 4.28.9.~~

~~**Not In-Service Capacity Refund Quantity**: The MW quantity of Not In-Service Capacity of a Scheduled Facility or Semi-Scheduled Facility that is subject to a capacity refund in a Trading Interval, calculated in accordance with clause 4.26.1D.~~

Notional Wholesale Meter: A notional interval meter representing Non-Dispatchable Loads without interval meters that are served by Synergy.

~~**Outage Quantity**: The quantity, in MW, of the derating of a Separately Certified Component in a Dispatch Interval as a result of a Planned Outage or Forced Outage for energy, determined in accordance with clause 3.21.6.~~

~~**Participant Capacity Rebate**: For a Market Participant holding Capacity Credits associated with a Scheduled Facility, Semi-Scheduled Facility or a Demand Side Programme, the rebate determined for a Trading Interval, as calculated in accordance with clause 4.26.4.~~

Peak Benchmark Reserve Capacity Price: In respect of a Reserve Capacity Cycle, the price published by the Economic Regulation Authority under clause 4.16.8.

Peak Capacity: Reserve Capacity that contributes to meeting peak demand.

Peak Capacity Adjusted Forced Outage Quantity: Means, the quantity, in MW, of the derating of a Facility or Separately Certified Component in a Dispatch Interval or Trading Interval from the Peak Reserve Capacity Obligation Quantity for the Facility or Separately Certified Component as determined by AEMO in accordance with:

(a) for a Separately Certified Component in a Dispatch Interval, the formula in clause 3.21.7;

(b) for a Separately Certified Component in a Trading Interval, the formula in clause 3.21.7A;

(c) for a Facility in a Trading Interval, the formula in clause 3.21.7B; and

(d) for a Facility in a Dispatch Interval, the formula in clause 3.21.7C.

Peak Capacity Adjusted Planned Outage Quantity: Means, the quantity, in MW, of the derating of a Facility or Separately Certified Component in a Dispatch Interval or Trading Interval from the Peak Reserve Capacity Obligation Quantity for the Facility or Separately Certified Component as determined by AEMO in accordance with:

(a) for a Separately Certified Component in a Dispatch Interval, the formula in clause 3.21.8;

(b) for a Separately Certified Component in a Trading Interval, the formula in clause 3.21.8A;

(c) for a Facility in a Trading Interval, the formula in clause 3.21.8B; and

(d) for a Facility in a Dispatch Interval, the formula in clause 3.21.8C.

Peak Capacity Cost Refund: Has the meaning given in clause 4.26.2E.

Peak Capacity Credit: A notional unit of Peak Capacity provided by a Facility during a Capacity Year. Each Peak Capacity Credit is equivalent to 1MW of Peak Capacity. The Peak Capacity Credits associated with a Facility are held by the Market Participant registered in respect of that Facility.

Peak Capacity Credit Reduction Payment: For a Demand Side Programme on a Trading Day, the amount calculated by AEMO in accordance with clause 4.25.4CC.

Peak Capacity Credit Reduction Quantity: For a Demand Side Programme on a Trading Day, the amount by which AEMO reduced the Peak Capacity Credits of the Demand Side Programme under clause 4.25.4C(c).

Peak Capacity Outage Quantity: The quantity, in MW, of the derating of a Separately Certified Component in a Dispatch Interval as a result of a Planned Outage or Forced Outage for energy, determined in accordance with clause 3.21.6.

Peak Certified Reserve Capacity: For a Facility, and in respect of a Reserve Capacity Cycle, the quantity of Peak Capacity that AEMO has assigned to the Facility for the Reserve Capacity Cycle in accordance with clause 4.11, as adjusted under these WEM Rules including clause 4.14.8. Peak Reserve Capacity assigned to a Facility registered by a Market Participant is held by that Facility.

Peak Demand Side Programme Capacity Cost Refund: Has the meaning given in clause 4.26.3A.

Peak Electric Storage Resource Obligation Interval: For an Electric Storage Resource that holds Peak Capacity Credits, a Trading Interval in the Peak Electric Storage Resource Obligation Duration, in which a non-zero Peak Reserve Capacity Obligation Quantity is applied to a Facility component which holds Peak Capacity Credits.

Peak Electric Storage Resource Obligation Duration: For an Electric Storage Resource and a Trading Day, the contiguous Trading Intervals which commence in the First Peak Electric Storage Resource Obligation Interval published by AEMO in accordance with clause 4.11.3A, where the number of Trading Intervals is equal to:

(a) if the Electric Storage Resource first received Capacity Credits within any of the four previous Capacity Years, the ESR Duration Requirement for the Capacity Year in which it first received Capacity Credits; and

(b) otherwise the ESR Duration Requirement for the current Capacity Year.

Peak Eligible Services: Has the meaning given in clause 4.24.3.

Peak ESR Charge Shortfall: The MW quantity of capacity of a Scheduled Facility or Semi-Scheduled Facility that is subject to a capacity refund in a Trading Interval due to the inadequate Charge Level of an Electric Storage Resource, calculated in accordance with clause 4.26.1E.

Peak Excess Allocation Price: For a Market Participant is as calculated in accordance with clause 9.8.3(i).

Peak Generation Capacity Cost Refund: Has the meaning given in clause 4.26.3.

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

Peak Individual Reserve Capacity Requirement Contribution: Means the contribution of an Associated Load to a Market Participant's Indicative Individual Reserve Capacity Requirement determined in accordance with step 1 of Appendix 5.

Peak IRCR Intervals: For a Capacity Year, the Trading Intervals determined by AEMO under clause 4.1.23A.

Peak DSP Test Shortfall: For a Demand Side Programme in a Trading Interval, the quantity in MW by which it failed a Reserve Capacity Test for Peak Capacity, calculated under clause 4.25.3D, clause 4.25.4(b) or clause 4.25.6(b)(i).

Peak Not In-Service Capacity Refund Quantity: The MW quantity of Not In-Service Capacity of a Scheduled Facility or Semi-Scheduled Facility that is subject to a Peak Capacity refund in a Trading Interval, calculated in accordance with clause 4.26.1D.

Peak Real-Time Market Offer Shortfall: Has the meaning given in clause 4.26.1G.

Peak Real-Time Market Reserve Capacity Deficit: Has the meaning given in clause 4.26.1B.

Peak Refund Exempt Planned Outage Count: In respect of a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility and a period of time, the sum over all Trading Intervals in that period of:

(a) if no Peak Capacity Credits were associated with the Separately Certified Component in the Trading Interval, zero; or

(b) otherwise:

i. if the Trading Interval occurs before 8:00 AM on 1 June 2016, zero;

ii. if the Trading Interval occurs on or after 8:00 AM on 1 June 2016 and before New WEM Commencement Day, the total MW quantity of Refund Exempt Planned Outage determined for the relevant Scheduled Generator (or Scheduled Generators) in the Trading Interval under the WEM Rules that were in force immediately before New WEM Commencement Day, divided by the number of Capacity Credits associated with the Scheduled Generator (or Scheduled Generators) in the Trading Interval;

iii. if the Trading Interval occurs on or after New WEM Commencement Day and before RCM Reform Commencement, the total Refund Exempt Planned Outage Quantity determined by AEMO for the Separately Certified Component in the Trading Interval under the WEM Rules that were in force immediately before RCM Reform Commencement, divided by the number of Peak Capacity Credits associated with the Separately Certified Component in the Trading Interval; or

iv. if the Trading Interval occurs on or after RCM Reform Commencement, the total Peak Refund Exempt Planned Outage Quantity determined by AEMO for the Separately Certified Component in the Trading Interval under clauses 4.26.1C or 4.26.1CA, divided by the number of Peak Capacity Credits associated with the Separately Certified Component in the Trading Interval.

Peak Refund Exempt Planned Outage Quantity: A Peak Capacity Adjusted Planned Outage Quantity for a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility in a Trading Interval for which a Peak Facility Reserve Capacity Deficit Refund is not payable, as determined by AEMO under clauses 4.26.1C or 4.26.1CA.

Peak Refund Payable Planned Outage Quantity: A Peak Capacity Adjusted Planned Outage Quantity for a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility in a Trading Interval for which a Peak Facility Reserve Capacity Deficit Refund is payable, as determined by AEMO under clauses 4.26.1C or 4.26.1CA.

Peak Reserve Capacity Deficit: Has the meaning given in clause 4.26.1A.

Peak Reserve Capacity Price: In respect of a Reserve Capacity Cycle, the price for Peak Capacity determined in accordance with clause 4.29.1, where this price is expressed in units of dollars per Peak Capacity Credit per year.

Peak Reserve Capacity Requirement: Has the meaning given in clause 4.6.1.

Peak Reserve Capacity Target: In respect of a Capacity Year, AEMO's estimate of the total amount of Energy Producing Systems' capacity or Demand Side Programme capacity required in the SWIS to satisfy clauses 4.5.9(a) and (b) for that Capacity Year determined in accordance with clause 4.5.10(b).

Peak Shared Reserve Capacity Cost: The amount determined in accordance with clause 4.28.4.

Peak Targeted Reserve Capacity Cost: The cost defined under clause 4.28.1(a).

~~**Peak Trading Interval**: A Trading Interval occurring between 8 AM and 10 PM.~~

Peak Trading Interval Capacity Cost Refund: The refund a Market Participant holding Peak Capacity Credits incurs in a Trading Interval, as calculated in accordance with clause 4.26.2F.

Peak Trading Interval Refund Rate: The Peak Capacity refund rate applicable in a Trading Interval, and in respect of a Facility, as calculated in accordance with clause 4.26.1(a).

Planning Criterion: Has the meaning given in clause 4.5.9.

Price-Quantity Pair: In the context of:

(a) ~~Reserve Capacity Offers,~~ Supply Portfolio Curves and STEM Offers, a quantity that will be provided to AEMO by a Market Participant for a price equalling or exceeding the specified price. In the context of Demand Portfolio Curves and STEM Bids, a quantity that will be purchased from AEMO by a Market Participant for a price equalling or less than the specified price.;

(b) Real-Time Market Submissions the specified non-Loss Factor adjusted MW quantity at which a Market Participant is prepared to provide a Market Service from a Registered Facility as at the end of a Dispatch Interval and the non-Loss Factor Adjusted Price at which the Market Participant is prepared to provide that quantity by the end of the Dispatch Interval, where the price is:

i. in $ per MWh for energy;

ii. in $ per MW per hour for Contingency Reserve Raise, Contingency Reserve Lower, Regulation Raise and Regulation Lower; and

iii. in $ per MWs per hour for RoCoF Control Service.

RCM Reform Commencement: The date and time specified by the Minister as the RCM Reform Commencement, as published in the Government Gazette.

~~**Real-Time Market Offer Shortfall**: Has the meaning given in clause 4.26.1G.~~

~~**Real-Time Market Reserve Capacity Deficit**: Has the meaning given in clause 4.26.1B.~~

~~**Refund Exempt Planned Outage Count:** In respect of a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility and a period of time, the sum over all Trading Intervals in that period of:~~

~~(a) if no Capacity Credits were associated with the Separately Certified Component in the Trading Interval, zero; or~~

~~(b) otherwise:~~

~~i. if the Trading Interval occurs before 8:00 AM on 1 June 2016, zero;~~

ii. if the Trading Interval occurs on or after 8:00 AM on 1 June 2016 and before New WEM Commencement Day, the total MW quantity of Refund Exempt Planned Outage determined for the relevant Scheduled Generator (or Scheduled Generators) in the Trading Interval under the WEM Rules that were in force immediately before New WEM Commencement Day, divided by the number of Capacity Credits associated with the Scheduled Generator (or Scheduled Generators) in the Trading Interval; or

iii. if the Trading Interval occurs on or after New WEM Commencement Day, the total Refund Exempt Planned Outage Quantity determined by AEMO for the Separately Certified Component in the Trading Interval under clauses 4.26.1C or 4.26.1CA, divided by the number of Capacity Credits associated with the Separately Certified Component in the Trading Interval.

Refund Exempt Planned Outage Quantity: A Capacity Adjusted Planned Outage Quantity for a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility in a Trading Interval for which a Facility Reserve Capacity Deficit Refund is not payable, as determined by AEMO under clauses 4.26.1C or 4.26.1CA.

Refund Payable Planned Outage Quantity: A Capacity Adjusted Planned Outage Quantity for a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility in a Trading Interval for which a Facility Reserve Capacity Deficit Refund is payable, as determined by AEMO under clauses 4.26.1C or 4.26.1CA.

Relevant Level: Means the MW quantity determined by AEMO in accordance with the Relevant Level Methodology.

Relevant Level Methodology: Means the method of determining the Relevant Level specified in Appendix 9.

Reserve Capacity: Capacity associated with a Facility. Capacity may be either Peak Capacity or both Peak Capacity and Flexible Capacity, and may be:

(a) the capacity of Energy Producing Systems to produce electricity and send it out into a Network forming part of the SWIS; or

(b) Demand Side Management, being the capability of a Demand Side Programme Facility registered by the Market Participant at a connection point to a Network forming part of the SWIS to reduce the consumption of electricity at that connection points to a Network forming part of the SWIS.

Reserve Capacity Deficit: Has the meaning given in clause 4.26.1A.

Reserve Capacity Price: The Peak Reserve Capacity Price or the Flexible Reserve Capacity Price.In respect of a Reserve Capacity Cycle, the price for Reserve Capacity

~~determined in accordance with clause 4.29.1, where this price is expressed in units of dollars per Capacity Credit per year.~~

Reserve Capacity Price Factors: Means the BRCP Cap Factor, the EZ BRCP Factor, EZ and AZ used in the formula~~e~~ specified in clause 4.29.1~~(b)(iv)~~.

Reserve Capacity Requirement: For a Reserve Capacity Cycle, the Peak Reserve Capacity Requirement or the Flexible Reserve Capacity Requirement. ~~Has the meaning given in clause 4.6.1.~~

Reserve Capacity Target: For a Capacity Year, the Peak Reserve Capacity Target or the Flexible Reserve Capacity Target~~In respect of a Capacity Year, AEMO's estimate of the total amount of Energy Producing Systems' capacity or Demand Side Management capacity required in the SWIS to satisfy the Planning Criterion for that Capacity Year determined in accordance with clause 4.5.10(b)~~.

Explanatory Note

The RLM Reference Period runs from October to September, because it requires load adjustments based on the Capacity Year based growth figures in the ESOO.

RLM Reference Period: For a Reserve Capacity Cycle, the five-year period ending at 8:00 AM on 1 October of Year 1 of the previous Reserve Capacity Cycle

~~**Shared Reserve Capacity Cost**: The amount determined in accordance with clause 4.28.4.~~

STEM Peak Reserve Capacity Obligation Quantity: An estimate of the Peak Reserve Capacity Obligation Quantity for a Scheduled Facility or Semi-Scheduled Facility, or a Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility, for a Dispatch Interval that is determined by AEMO on the Scheduling Day for the relevant Trading Day in accordance with clause 6.3A.3(h).

~~**Targeted Reserve Capacity Cost:** The cost defined under clause 4.28.1(a).~~

~~**Temperature Dependent Load**: A Non-Dispatchable Load that is not a Non-Temperature Dependent Load.~~

~~**Trading Interval Capacity Cost Refund**: The refund a Market Participant holding Capacity Credits incurs in a Trading Interval, as calculated in accordance with clause 4.26.2F.~~

~~**Trading Interval Refund Rate**: The refund rate applicable in a Trading Interval, and in respect of a Facility, as calculated in accordance with clause 4.26.1(a).~~

Transitional Component: Means a Separately Certified Component that was part of a Transitional Facility at the time that Facility was assigned Capacity Credits for the 2018 Reserve Capacity Cycle.

Transitional Facility: Means a Facility (other than a Demand Side Programme) that was assigned Capacity Credits for the 2018 Reserve Capacity Cycle.

Unallocated Refund Amount: For a Demand Side Programme in a Trading Day, the amount of Peak Capacity refunds that have not been used in calculating a Peak Capacity Credit Reduction Payment, as calculated by AEMO under clause 4.25.4CC(e).

Appendix 1: Standing Data

Explanatory Note

Appendix 1 is amended to add parameters relating to Flexible Capacity.

…

(b) For a Scheduled Facility:

…

xvi. details of any potential energy limits of the Facility;

xvii. if the Facility is a Fast Start Facility;

xviii. the minimum time to synchronisation for the Facility from each of the following states, if applicable:

1. cold;

2. warm; and

3. hot,

and the number of hours that must have elapsed since the Facility last ran for it to be considered in each of these states;

xviiiA. The minimum time to operation at the minimum stable loading level for each Facility Technology Type from each of the following states, if applicable:

1. cold;

2. warm; and

3. hot;

xix. the minimum time before each Facility Technology Type in the Facility can be restarted after it is shut down, excluding Loads;

xixA. the minimum time before each Facility Technology Type in the Facility can be shut down after it is started, excluding Loads;

xx. the minimum stable loading level of the Facility, expressed in sent out MW;

xxi. the minimum dispatchable loading level of the Facility, expressed in sent out MW;

xxii. the minimum physical response time before the Facility can begin to respond to a Dispatch Instruction, when the Facility is running;

xxiiA. the minimum time required to ramp down from the minimum stable loading level to zero output;

xxiii. any output range between minimum dispatchable loading level and nameplate capacity in which the Facility is incapable of stable or safe operation;

xxiiiA. The output range over which the Facility and each Separately Certified Component is capable of meeting the requirements for Flexible Capacity determined under clause 4.10.1A(a);

xxiv. the minimum load at the connection point of the Facility that will automatically trip off if the Facility fails, expressed in MW;

xxv. sub-transient, transient and steady state impedances (positive, negative and zero sequence) for the Facility;

xxvi. the Standing Maximum Upwards Ramp Rate;

xxvii. the Standing Maximum Downwards Ramp Rate;

xxviii. the emergency upwards ramp rate;

xxix. the emergency downwards ramp rate;

…

Appendix 3: Determination of Network Access Quantities

Explanatory Note

Appendix 3 is amended to:

- explicitly relate to Peak Capacity
- remove the need to calculate separate capacity shortfalls for each Availability Class
- change the tiebreak criteria to reintroduce EOI responses.

The objectives of this appendix are:

1. To prevent AEMO determining Network Access Quantities (and assigning Peak Capacity Credits) for Facilities that have been assigned Peak Certified Reserve Capacity -that have insufficient access to the Network and availability to usefully address the Peak Reserve Capacity Requirement. A single algorithm is used for testing of Peak Certified Reserve Capacity and for determining whether, in respect of a Reserve Capacity Cycle, a Network Access Quantity will be determined for any new Candidate Fixed Price Facilities for the current Reserve Capacity Cycle. -The process is:
    - ~~where~~ if the Facilities, for which Peak Capacity Credits for the current Reserve Capacity Cycle are being sought, do not include a Candidate Fixed Price Facility or Candidate Fixed Price Component, set out in Part A; and
    - ~~where~~ if the Facilities, for which Peak Capacity Credits for the current Reserve Capacity Cycle are being sought, include a Candidate Fixed Price Facility or Candidate Fixed Price Component, set out in Part B.
2. To determine, using the Network Access Quantity Model:
    - whether a Network Access Quantity will be determined for a new Facility, or Facility Upgrade, for the current Reserve Capacity Cycle and, if so, to determine a Network Access Quantity for that Facility or Facility Upgrade;
    - a preliminary Network Access Quantity or an Indicative Network Access Quantity for an Early CRC Facility, as applicable; and
    - a Network Access Quantity (which may be zero) for other NAQ Facilities for the current Reserve Capacity Cycle.

Terms defined in this Appendix 3 are defined for the purposes of this Appendix 3 alone and must not be used to infer the meaning of those words, or other words, in these WEM Rules. Terms which are defined in the WEM Rules will apply to this Appendix unless defined in this Appendix.

AEMO must use the applicable Constraint Sets in the Network Access Quantity Model for the Facilities assessed in each step of this Appendix 3.

Appendix 3

In this Appendix 3:

- ~~Q[a] is the quantity associated with Availability Class "a" in clauses 4.5.12(b) or 4.5.12(c);~~
- ~~CR[a] is the capacity requirement associated with Availability Class "a";~~
- ~~Z is the total preliminary Network Access Quantity determined for Facilities where the capacity is associated with Availability Class 1;~~
- ~~the "capacity requirement" of:~~
  - ~~Availability Class 1 is CR[1] = Q[1]; and~~
  - ~~Availability Class 2 is CR[2] = max(0, Q[2]) – max(0, Z – CR[1]);~~
- "current Reserve Capacity Cycle" means the Reserve Capacity Cycle for which the processes in this Appendix are being undertaken to procure Reserve Capacity for the Capacity Year for that Reserve Capacity Cycle;
- "Early CRC Facility" is a Facility for which:
  - an application for Early Certified Reserve Capacity has been made under section 4.28C to deliver ~~Reserve~~ Peak Capacity for a future Reserve Capacity Cycle; and
  - pursuant to that application, AEMO has assigned Early Certified Reserve Capacity to the Facility in accordance with section 4.28C;
- "Facility Upgrade" means, for a NAQ Facility, an increase in the nameplate capacity of the NAQ Facility, being the difference between:
  - the nameplate capacity specified under clause 4.10.1(dA), for the NAQ Facility, as provided in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle; and
  - the nameplate capacity specified under clause 4.10.1(dA), for the NAQ Facility as provided in the current Reserve Capacity Cycle;
- "future Reserve Capacity Cycle" means a Reserve Capacity Cycle that is subsequent to the current Reserve Capacity Cycle;
- "Indicative NAQ Facility" means an Early CRC Facility for which an Indicative Network Access Quantity was determined for the Facility under Step 13(c)(ii) in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle, but does not include:
  - an Early CRC Facility that is also a Network Augmentation Funding Facility; or
  - an NAQ Facility;
- "NAQ Facility" means:
  - a Facility for which a Final Network Access Quantity has been determined in a previous Reserve Capacity Cycle and the Facility has

been assigned Peak Certified Reserve Capacity for the current Reserve Capacity Cycle;

- an Early CRC Facility where the current Reserve Capacity Cycle is the Reserve Capacity Cycle in which the Facility will first deliver Peak ~~Reserve~~ Capacity; or
- a Facility that has been assigned Peak Certified Reserve Capacity and is subject to an NCESS Contract for the current Reserve Capacity Cycle,

but excludes a Facility for which AEMO has received a notice under section 4.4A.1 that the Facility is expected to retire in the Capacity Year to which the current Reserve Capacity Cycle relates and the notice has not been withdrawn under clause 4.4A.6;

- "NAQ rules" means:
  - the preliminary Network Access Quantity determined for a Facility under a step in Part A or Part B, as applicable, cannot be reduced, but can be increased, in a subsequent step; and
  - the maximum preliminary Network Access Quantity that can be determined for a Facility at the end of a step in Part A or Part B, as applicable, cannot exceed the Peak Certified Reserve Capacity assigned to the Facility for the current Reserve Capacity Cycle;
- "preliminary Network Access Quantity" is the Network Access Quantity first determined by AEMO for a Facility in a step, as may be adjusted by AEMO in a subsequent step;
- "prioritisation order" means, ~~where~~ if two or more Facilities are tied with respect to the selection criteria such that assigning a preliminary Network Access Quantity to all but one of them would result in the total preliminary Network Access Quantity assigned to those Facilities exceeding the Peak Reserve Capacity Requirement ~~total capacity requirement of the Availability Class~~, then those tied Facilities are to be selected according to the following rules until the tie is resolved:
  - the ratio of a Facility's preliminary Network Access Quantity to Peak Certified Reserve Capacity from highest to lowest; then
  - the combination of the Peak Certified Reserve Capacity for Facilities that will minimise the excess of the total Network Access Quantities to be assigned to the Facilities to achieve the Peak Reserve Capacity Requirement ~~capacity requirement for the Availability Class~~; then
  - in order of Capability Class, with Facilities in Capability Class 1 being selected first, then Facilities in Capability Class 2, and then Facilities in Capability Class 3;

- whether or not the Facility was included in an Expression of Interest submission, with Facilities included in Expression of Interest Submissions being selected first;
- in the order of the time Expression of Interest submissions were received by AEMO, with the Facility to which the earlier submission relates being selected first; then
- in the order of the time the applications for Certified Reserve Capacity were received by AEMO, with the Facility to which the earlier application relates being selected first.

Part A No Candidate Fixed Price Facility or Candidate Fixed Price Component

Step 1: Identify the Peak Reserve Capacity Requirement for the current Reserve Capacity Cycle.~~Calculate the capacity requirement of Availability Class 1.~~

Step 2: Let the Network Access Quantity Model contain:

(a) NAQ Facilities ~~for Availability Class 1 and Availability Class 2~~; and

(b) Indicative NAQ Facilities.

Step 3: For:

(a) the 2022 Reserve Capacity Cycle, AEMO must:

i. undertake the processes in Steps 3A, 3B and 3C excluding:

1. each NAQ Facility that is also a GIA Facility; and

2. each Indicative NAQ Facility; then

ii. repeat Steps 3A, 3B and 3C with all NAQ Facilities and Indicative NAQ Facilities in accordance with the processes set out in those steps; and

(b) subsequent Reserve Capacity Cycles, go to Step 3A.

Step 3A: Subject to the NAQ rules, using the Network Access Quantity Model determine the preliminary Network Access Quantity for each NAQ Facility and, ~~where~~ if applicable, Indicative Network Access Quantity for each Indicative NAQ Facility, which is a value up to the minimum of:

(a) the Network Access Quantity determined for the NAQ Facility or Indicative NAQ Facility in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle, which~~, for an Early CRC Facility is deemed to be~~:

i. for an Early CRC Facility is deemed to be:

1. for an Early CRC Facility that is also a Network Augmentation Funding Facility, the preliminary Network

Access Quantity determined for the Facility at Step 13(c)(i) in a previous Reserve Capacity Cycle; or

2. for each other Early CRC Facility, the Indicative Network Access Quantity determined for the Facility in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle; and

ii. for an NAQ Facility subject to an NCESS Contract, that was not assigned a Network Access Quantity in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle, is deemed to be the Peak Certified Reserve Capacity for the NAQ Facility; and

(b) the Peak Certified Reserve Capacity for the NAQ Facility or ~~Early Certified Reserve Capacity~~ for the Indicative NAQ Facility with Early Certified Reserve Capacity,

then go to Step 3B.

Step 3B: Using the Network Access Quantity Model and, subject to the NAQ Rules, adjust the preliminary Network Access Quantity determined for an NAQ Facility under a prior step to a value up to the Highest Network Access Quantity for the NAQ Facility where this is greater than the preliminary Network Access Quantity determined for the NAQ Facility in a prior step and, ~~where~~ if applicable, adjust the Indicative Network Access Quantity determined under a prior step for an Indicative NAQ Facility up to the Early Certified Reserve Capacity for the Indicative NAQ Facility,

then go to Step 3C.

Step 3C: Using the Network Access Quantity Model and, subject to the NAQ rules, adjust the preliminary Network Access Quantity determined for an NAQ Facility or Indicative Network Access Quantity for an Indicative NAQ Facility under a prior step to a value up to a value equal to the Peak Certified Reserve Capacity for the NAQ Facility or Early Certified Reserve Capacity for an Indicative NAQ Facility, excluding, for the NAQ Facility, any associated Facility Upgrade, where this is greater than the preliminary Network Access Quantity determined in a prior step.

Step 4: Add all new committed Network Augmentation Funding Facilities (as defined in section 4.10A) to the Network Access Quantity Model, then using the Network Access Quantity Model and, subject to the NAQ rules:

(a) determine the preliminary Network Access Quantity for each such Network Augmentation Funding Facility; and

(b) ~~where~~ if applicable, adjust the preliminary Network Access Quantity determined for a Facility under a prior step or the Indicative Network Access Quantity for an Indicative NAQ Facility.

To avoid doubt, an Early CRC Facility that is also a Network Augmentation Funding Facility is not a Network Augmentation Funding Facility for the purposes of this Step 4.

Step 5: Add to the Network Access Quantity Model:

(a) any remaining committed Facilities ~~associated with Availability Class 1 and Availability Class 2~~, excluding any new Early CRC Facilities; and

(b) any committed Facility Upgrade for an NAQ Facility, then:

(c) using the Network Access Quantity Model and, subject to the NAQ rules:

i. determine the preliminary Network Access Quantity for each such Facility or Facility Upgrade; and

ii. ~~where~~ if applicable, adjust the preliminary Network Access Quantity determined for a Facility under a prior step or the Indicative Network Access Quantity for an Indicative NAQ Facility.

Step 6: If the sum of the preliminary Network Access Quantity determined for each Facility ~~that is associated with Availability Class 1~~ under all prior steps ~~does not~~ fully covers the Peak Reserve Capacity Requirement, go to Step 8. Otherwise: ~~capacity requirement of Availability Class 1, then:~~

(a) add all remaining Facilities and Facility Upgrades, excluding any new Early CRC Facilities~~, associated with Availability Class 1~~ to the Network Access Quantity Model; then

(b) using the Network Access Quantity Model and, subject to the NAQ rules, determine the preliminary Network Access Quantity for each Facility added in Step 6(a); then

(c) select Facilities, subject to, ~~where~~ if applicable, the preliminary Network Access Quantity determined for a Facility being not less than the Minimum Capacity Credits Quantity for the Facility ~~(as specified under clause 4.14.1D)~~, until the Peak Reserve Capacity Requirement ~~capacity requirement of Availability Class 1~~ is fully covered, applying the prioritisation order, if required, or until there are no Facilities left to be selected; then

(d) remove any Facilities not selected under Step 6(c) from the Network Access Quantity Model; then

(e) using the Network Access Quantity Model and, subject to the NAQ rules:

i. determine the preliminary Network Access Quantity for each Facility selected under Step 6(c); and

ii. ~~where~~ if applicable, adjust the preliminary Network Access Quantity determined for a Facility under a prior step or the Indicative Network Access Quantity for an Indicative NAQ Facility.

For the purposes of Step 8~~11~~, Facilities that have not been selected under Step 6(c) will not be treated as a Facility for which a preliminary Network Access Quantity has been determined.

Step 7: If a preliminary Network Access Quantity has been determined for each Facility in the Network Access Quantity Model ~~associated with Availability Class 1~~ (except for any Facilities that were not selected due to the preliminary Network Access Quantity determined for the Facility being less than the Minimum Capacity Credits Quantity for the Facility ~~as specified under clause 4.14.1D~~) but the Peak Reserve Capacity Requirement ~~capacity requirement of Availability Class 1~~ has not been covered, then record the difference as the capacity shortfall for Peak Capacity ~~Availability Class 1~~.

~~Step 8: Calculate the capacity requirement of Availability Class 2.~~

~~Step 9: If the sum of the preliminary Network Access Quantity determined for each Facility that is associated with Availability Class 2 under all prior steps does not fully cover the capacity requirement of Availability Class 2, then:~~

~~(a) add all remaining Facilities associated with Availability Class 2 to the Network Access Quantity Model and any Facilities that were removed from the Network Access Quantity Model at Step 6(d); then~~

~~(b) using the Network Access Quantity Model and, subject to the NAQ rules, determine the preliminary Network Access Quantity for each Facility added at Step 9(a); then~~

~~(c) select Facilities, subject to, where applicable, the preliminary Network Access Quantity determined for a Facility being not less than the Minimum Capacity Credits Quantity for the Facility (as specified under clause 4.14.1D), in order of decreasing availability until the capacity requirement of Availability Class 2 is fully covered, applying the prioritisation order, if required, or until there are no Facilities left to be selected; then~~

~~(d) remove any Facilities not selected under Step 6(c) from the Network Access Quantity; then~~

~~(e) using the Network Access Quantity Model and, subject to the NAQ rules:~~

~~i. determine the preliminary Network Access Quantity for each Facility selected under Step 9(c); and~~

~~ii. where applicable, adjust the preliminary Network Access Quantity determined for a Facility under a prior step or Indicative Network Access Quantity for an Indicative NAQ Facility.~~

~~For the purposes of Step 11, Facilities that have not been selected under Step 9(c) will not be treated as a Facility for which a preliminary Network Access Quantity has been determined.~~

~~Step 10: If a preliminary Network Access Quantity has been determined for each Facility in the Network Access Quantity Model associated with Availability Class 2 (except for any Facilities that were not selected due to the preliminary Network Access Quantity determined for the Facility being less than the Minimum Capacity Credits Quantity for the Facility as specified under clause 4.14.1D) but the capacity requirement of Availability Class 2 has not been covered, then record the difference as the capacity shortfall for Availability Class 2.~~

Step 8~~11~~: Record:

(a) for an Indicative NAQ Facility, if the Indicative Network Access Quantity has been adjusted under this Part A, the adjusted Indicative Network Access Quantity; and

(b) for each other Facility, the preliminary Network Access Quantity determined under this Part A as the Final Network Access Quantity for the Facility.

Step 9~~12~~: ~~For each Availability Class report~~ Report the capacity shortfall for Peak Capacity, which indicates the amount to be procured through the supplementary capacity process in section 4.24.

Step 10~~13~~: Add the Facilities referred to in Step 10~~13~~(a) and (b) (each comprising a "group") in the order specified to the Network Access Quantity Model, except that before adding the next group of Facilities to the Network Access Quantity Model, undertake the applicable determination in Step 10~~13~~(c) for that group of Facilities before adding the next group of Facilities and repeating Step 10~~13~~(c) for that subsequent group of Facilities:

(a) new Early CRC Facilities that are also Network Augmentation Funding Facilities; then

(b) any other new Early CRC Facilities; then

(c) using the Network Access Quantity Model and, subject to the NAQ rules:

i. determine the preliminary Network Access Quantity for each Facility in the group of Facilities described in Step 10~~13~~(a); and

ii. determine the Indicative Network Access Quantity for each Facility in the group of Facilities described in Step 10~~13~~(b).

Step 11~~14~~: End.

Part B Candidate Fixed Price Facility or Candidate Fixed Price Component

Step 1: Identify the Peak Reserve Capacity Requirement for the third year of the current Reserve Capacity Cycle.~~Calculate the capacity requirement of Availability Class 1.~~

Step 2: Let the Network Access Quantity Model contain:

(a) NAQ Facilities ~~for Availability Class 1 and Availability Class 2~~; and

(b) Indicative NAQ Facilities.

Step 3: For:

(a) the 2022 Reserve Capacity Cycle, AEMO must:

i. undertake the processes in Steps 3A, 3B and 3C excluding:

1. each NAQ Facility that is also a GIA Facility; and

2. each Indicative NAQ Facility; then

ii. repeat Steps 3A, 3B and 3C with all NAQ Facilities and Indicative NAQ Facilities in accordance with the processes set out in those steps; and

(b) subsequent Reserve Capacity Cycles, go to Step 3A.

Step 3A: Subject to the NAQ rules, using the Network Access Quantity Model determine the preliminary Network Access Quantity for each NAQ Facility and, ~~where~~ if applicable, Indicative Network Access Quantity for each Indicative NAQ Facility, which is a value up to the minimum of:

(a) the Network Access Quantity determined for the NAQ Facility or Indicative NAQ Facility in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle, which~~, for an Early CRC Facility is deemed to be~~:

i. for an Early CRC Facility is deemed to be:

1. for an Early CRC Facility that is also a Network Augmentation Funding Facility, the preliminary Network Access Quantity determined for the Facility at Step 13(c)(i) in a previous Reserve Capacity Cycle; or

2. for each other Early CRC Facility, the Indicative Network Access Quantity determined for the Facility in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle; and

ii. for an NAQ Facility subject to an NCESS Contract, that was not assigned a Network Access Quantity in the Reserve Capacity Cycle immediately preceding the current Reserve Capacity Cycle, is deemed to be the Peak Certified Reserve Capacity for the NAQ Facility; and

(b) the Peak Certified Reserve Capacity for the NAQ Facility or Early Certified Reserve Capacity for the Indicative NAQ Facility,

then go to Step 3B.

Step 3B: Using the Network Access Quantity Model and, subject to the NAQ Rules, adjust the preliminary Network Access Quantity determined for an NAQ Facility under a

prior step to a value up to the Highest Network Access Quantity for the NAQ Facility where this is greater than the preliminary Network Access Quantity determined for the NAQ Facility in a prior step and, ~~where~~ if applicable, adjust the Indicative Network Access Quantity determined under a prior step for an Indicative NAQ Facility up to the Early Certified Reserve Capacity for the Indicative NAQ Facility,

then go to Step 3C.

Step 3C: Using the Network Access Quantity Model and, subject to the NAQ rules, adjust the preliminary Network Access Quantity determined for an NAQ Facility or Indicative Network Access Quantity for an Indicative NAQ Facility under a prior step to a value up to a value equal to the Peak Certified Reserve Capacity for the NAQ Facility or Early Certified Reserve Capacity for an Indicative NAQ Facility, excluding, for the NAQ Facility any associated Facility Upgrade, where this is greater than the preliminary Network Access Quantity determined in a prior step.

Step 4: Add all new committed Network Augmentation Funding Facilities (as defined in section 4.10A) to the Network Access Quantity Model, then using the Network Access Quantity Model and, subject to the NAQ rules:

(a) determine the preliminary Network Access Quantity for each such Network Augmentation Funding Facility; and

(b) ~~where~~ if applicable, adjust the preliminary Network Access Quantity determined for a Facility under a prior step or the Indicative Network Access Quantity for an Indicative NAQ Facility.

To avoid doubt, an Early CRC Facility that is also a Network Augmentation Funding Facility is not a Network Augmentation Funding Facility for the purposes of this Step 4.

Step 5: Add to the Network Access Quantity Model:

(a) any remaining committed Facilities ~~associated with Availability Class 1 and Availability Class 2~~, excluding:

i. any new Early CRC Facilities; and

ii. any committed Candidate Fixed Price Facilities; and

(b) any committed Facility Upgrade for an NAQ Facility, excluding any that are Candidate Fixed Price Components, then:

(c) using the Network Access Quantity Model and, subject to the NAQ rules:

i. determine the preliminary Network Access Quantity for each such Facility, or Facility Upgrade; and

ii. ~~where~~ if applicable, adjust the preliminary Network Access Quantity determined for a Facility under a prior step or the Indicative Network Access Quantity for an Indicative NAQ Facility.

Step 6: If the sum of the preliminary Network Access Quantity determined for each Facility under all prior steps is:

(a) less than the Peak Reserve Capacity Requirement plus 3%, then go to Step 6A; or

(b) equal to or more than the Peak Reserve Capacity Requirement plus 3%, then go to Step 6C.

Step 6A: Add all committed Candidate Fixed Price Facilities and committed Facility Upgrades that are Candidate Fixed Price Components ~~associated with Availability Class 1 and Availability Class 2~~ to the Network Access Quantity Model, then, using the Network Access Quantity Model and, subject to the NAQ rules:

(a) determine the preliminary Network Access Quantity for each committed Candidate Fixed Price Facility and each Facility with a Facility Upgrade that is a Candidate Fixed Price Component; and

(b) ~~where~~ if applicable, adjust the preliminary Network Access Quantity determined for a Facility under a prior step or the Indicative Network Access Quantity for an Indicative NAQ Facility.

Step 6B: If the sum of the preliminary Network Access Quantity determined for each Facility ~~that is associated with Availability Class 1~~ under all prior steps does not fully cover the Peak Reserve Capacity Requirement ~~capacity requirement of Availability Class 1~~, then:

(a) add the Facilities referred to in Step 6B(a)(i) and (ii) (each comprising a "group") in the order specified to the Network Access Quantity Model, except that before adding the next group of Facilities to the Network Access Quantity Model, undertake Steps 6B(b), 6B(c), 6B(d) and 6B(e)(i) for that group of Facilities, and Step 6B(e)(ii) in respect to the Facilities referred to in Step 6B(e)(ii), before adding the next group of Facilities, if required, and repeating Steps 6B(b), 6B(c), 6B(d) and 6B(e)(i) for that subsequent group of Facilities, and Step 6B(e)(ii) in respect to the Facilities referred to in Step 6B(e)(ii):

i. any remaining Facilities ~~associated with Availability Class 1~~ that are not committed or Candidate Fixed Price Facilities or Facility Upgrades that are Candidate Fixed Price Components; then

ii. Candidate Fixed Price Facilities ~~associated with Availability Class 1~~ that are not committed and Facility Upgrades that are Candidate Fixed Price Components that are not committed; then

(b) using the Network Access Quantity Model and, subject to the NAQ rules, determine the preliminary Network Access Quantity for each Facility in that group of Facilities; then

(c) select Facilities from that group of Facilities, subject to, ~~where~~ if applicable, the preliminary Network Access Quantity determined for a Facility in that group of Facilities being not less than the Minimum Capacity Credits Quantity for the Facility ~~(as specified under clause 4.14.1D)~~, until the Peak Reserve Capacity Requirement ~~capacity requirement of Availability Class 1~~ is fully covered, applying the prioritisation order, if required, or until there are no Facilities left to be selected; then

(d) remove any Facilities not selected under Step 6B(c) from that group of Facilities from the Network Access Quantity Model; then

(e) using the Network Access Quantity Model and, subject to the NAQ rules:

i. determine the preliminary Network Access Quantity for each Facility selected under Step 6B(c); and

ii. ~~where~~ if applicable, adjust the preliminary Network Access Quantity determined for a Facility under a prior step (other than a step in this Step 6B) or the Indicative Network Access Quantity for an Indicative NAQ Facility,

then go to Step 7.

For the purposes of Step 8~~11~~, Facilities that have not been selected under Step 6B(c) will not be treated as a Facility for which a preliminary Network Access Quantity has been determined.

Step 6C: If the sum of the preliminary Network Access Quantity determined for each Facility ~~that is associated with Availability Class 1~~ under all prior steps does not fully cover the Peak Reserve Capacity Requirement ~~capacity requirement of Availability Class 1~~, then:

(a) add the Facilities referred to in Step 6C(a)(i), (ii) and (iii) (each comprising a "group") in the order specified to the Network Access Quantity Model, except that before adding the next group of Facilities to the Network Access Quantity Model, undertake Steps 6C(b), 6C(c), 6C(d) and 6C(e)(i) for that group of Facilities, and Step 6C(e)(ii) in respect to the Facilities referred to in Step 6C(e)(ii), before adding the next group of Facilities, if required, and repeating Steps 6C(b), 6C(c), 6C(d) and 6C(e)(i) for that subsequent group of Facilities (as applicable), and Step 6C(e)(ii) in respect to the Facilities referred to in Step 6C(e)(ii):

i. Facilities ~~associated with Availability Class 1~~ that are not committed or Candidate Fixed Price Facilities or Facility Upgrades that are Candidate Fixed Price Components; then

ii. committed Candidate Fixed Price Facilities and committed Facility Upgrades that are Candidate Fixed Price Components ~~associated with Availability Class 1~~; then

iii. Candidate Fixed Price Facilities ~~associated with Availability Class 1~~ that are not committed and Facility Upgrades that are Candidate Fixed Price Components that are not committed; then

(b) using the Network Access Quantity Model and, subject to the NAQ rules, determine the preliminary Network Access Quantity for each Facility in that group of Facilities; then

(c) select Facilities from that group of Facilities subject to, ~~where~~ if applicable, the preliminary Network Access Quantity for a Facility in that group of Facilities being not less than the Minimum Capacity Credits Quantity for the Facility ~~(as specified under clause 4.14.1D)~~, until the Peak Reserve Capacity Requirement ~~capacity requirement of Availability Class 1~~ is fully covered, applying the prioritisation order, if required, or until there are no Facilities left to be selected; then

(d) remove any Facilities not selected from the group of Facilities under Step 6C(c) from the Network Access Quantity Model; then

(e) using the Network Access Quantity Model and, subject to the NAQ rules:

i. determine the preliminary Network Access Quantity for each Facility selected under Step 6C(c); and

ii. ~~where~~ if applicable, adjust the preliminary Network Access Quantity determined for a Facility under a prior step (other than a step in this Step 6C) or the Indicative Network Access Quantity for an Indicative NAQ Facility,

For the purposes of Step 8~~11~~, Facilities that have not been selected under Step 6C(c) will not be treated as a Facility for which a preliminary Network Access Quantity has been determined.

Step 7: If a preliminary Network Access Quantity has been determined for all Facilities in the Network Access Quantity Model ~~associated with Availability Class 1~~ (except for any Facilities that were not selected due to the preliminary Network Access Quantity determined for the Facility being less than the Minimum Capacity Credits Quantity for the Facility ~~as specified under clause 4.14.1D~~) but the Peak Reserve Capacity Requirement ~~capacity requirement of Availability Class 1~~ has not been covered, then record the difference as the capacity shortfall for Peak Capacity ~~Availability Class 1~~.

~~Step 8: Calculate the capacity requirement for Availability Class 2.~~

~~Step 9: Based on the Facilities for which a preliminary Network Access Quantity has been determined under all prior steps (except for any facilities that were not selected~~

due to the preliminary Network Access Quantity determined for the Facility being less than the Minimum Capacity Credits Quantity for the Facility as specified under clause 4.14.1D), determine if there is a shortfall for Availability Class 2. Go to Step 11 if there is no shortfall, otherwise go to:

(a) Step 9A if no committed Candidate Fixed Price Facility was added to the Network Access Quantity Model at Step 6A; or

(b) Step 9B if committed Candidate Fixed Price Facilities were added to the Network Access Quantity Model at Step 6A.

Step 9A: Add the Facilities referred to in Step 9A(a), (b), (c), (d), (e) and (f) (each comprising a "group") in the order specified to the Network Access Quantity Model, except that before adding the next group of Facilities to the Network Access Quantity Model, undertake Steps 9A(g), 9A(h), 9A(i) and 9A(j)(i) for that group of Facilities, and Step 9A(j)(ii) in respect to the Facilities referred to in Step 9A(j)(ii), before adding the next group of Facilities, if required, and repeating Steps 9A(g), 9A(h), 9A(i) and 9A(j)(i) (as applicable) for that subsequent group of Facilities, and Step 9A(j)(ii) in respect to the Facilities referred to in Step 9A(j)(ii):

(a) any remaining committed Candidate Fixed Price Facilities associated with Availability Class 1 and any Facilities that were removed from the Network Access Quantity Model at Step 6C(d); then

(b) committed Candidate Fixed Price Facilities associated with Availability Class 2; then

(c) any remaining Facilities associated with Availability Class 1 that are not committed or Candidate Fixed Price Facilities; then

(d) Facilities that are not committed or Candidate Fixed Price Facilities associated with Availability Class 2; then

(e) any remaining Candidate Fixed Price Facilities associated with Availability Class 1 that are not committed; then

(f) Candidate Fixed Price Facilities associated with Availability Class 2 that are not committed; then

(g) using the Network Access Quantity Model and, subject to the NAQ rules, determine the preliminary Network Access Quantity for each Facility in that set of Facilities; then

(h) select Facilities from that group of Facilities, subject to, where applicable, the preliminary Network Access Quantity for a Facility in that group of Facilities being not less than the Minimum Capacity Credits Quantity for the Facility (as specified under clause 4.14.1D), until the capacity requirement of Availability Class 2 is fully covered, applying the prioritisation order, if required, or until there are no Facilities left to be selected; then

(i) remove any Facilities not selected under Step 6C(h) from the Network Access Quantity Model; then

(j) using the Network Access Quantity Model and, subject to the NAQ rules:

i. determine the preliminary Network Access Quantity for each Facility selected under Step 9A(h); and

ii. where applicable, adjust the preliminary Network Access Quantity determined for a Facility under a prior step (other than a step in this Step 9A) , or the Indicative Network Access Quantity for an Indicative NAQ Facility ; then

go to Step 10.

For the purposes of Step 11, Facilities that have not been selected under Step 9A(h) will not be treated as a Facility for which a preliminary Network Access Quantity has been determined.

Step 9B: Add the Facilities referred to in Step 9B(a), (b), (c) and (d) (each comprising a "group") in the order specified to the Network Access Quantity Model, except that before adding the next group of Facilities to the Network Access Quantity Model, undertake Steps 9B(e), 9B(f), 9B(g) and 9B(h)(i) for each group of Facilities, and Step 9B(h)(ii) in respect to any other Facilities referred to in Step 9B(h)(ii), before adding the next group of Facilities, if required, and repeating Steps 9B(e), 9B(f), 9B(g) and 9B(h)(i) for that subsequent group of Facilities, and Step 9B(h)(ii) in respect of any other Facilities referred to in Step 9B(h)(ii):

(a) any remaining Facilities that are not committed or Candidate Fixed Price Facilities associated with Availability Class 1 and any Facilities that were removed from the Network Access Quantity Model at Step 6B(d); then

(b) Facilities that are not committed or Candidate Fixed Price Facilities associated with Availability Class 2; then

(c) any remaining Candidate Fixed Price Facilities associated with Availability Class 1 that are not committed; then

(d) Candidate Fixed Price Facilities associated with Availability Class 2 that are not committed; then

(e) using the Network Access Quantity Model and, subject to the NAQ rules, determine the preliminary Network Access Quantity for each Facility in that set of Facilities; then

(f) select Facilities from that set of Facilities, subject to, where applicable, the preliminary Network Access Quantity for a Facility being not less than the Minimum Capacity Credits Quantity for the Facility (as specified under clause 4.14.1D) until the capacity requirement of Availability Class 2 is fully covered, applying the prioritisation order, if required, or until there are no Facilities left to be selected; then

~~(g) remove any Facilities not selected under Step 9B(f) from the Network Access Quantity Model; then~~

~~(h) using the Network Access Quantity Model and, subject to the NAQ rules:~~

~~i. determine the preliminary Network Access Quantity for each such Facility selected under Step 9B(f); and~~

~~ii. where applicable, adjust the preliminary Network Access Quantity determined for a Facility under a prior step (other than a step in this Step 9B) or Indicative Network Access Quantity for an Indicative NAQ Facility.~~

~~For the purposes of Step 11, Facilities that have not been selected under Step 9B(f) will not be treated as a Facility for which a preliminary Network Access Quantity has been determined.~~

~~Step 10: If a preliminary Network Access Quantity has been determined for all Facilities in the Network Access Quantity Model associated with Availability Class 1 and Availability Class 2 (except for any Facilities that were not selected due to the preliminary Network Access Quantity determined for the Facility being less than the Minimum Capacity Credits Quantity for the Facility as specified under clause 4.14.1D) but the capacity requirement of Availability Class 2 has not been covered, then record the difference as the capacity shortfall for Availability Class 2.~~

Step 8~~11~~: Record:

(a) for an Indicative NAQ Facility, if the Indicative Network Access Quantity has been adjusted under this Part B, the adjusted Indicative Network Access Quantity; and

(b) for each other Facility, the preliminary Network Access Quantity determined under this Part B as the Final Network Access Quantity for the Facility.

Step 9~~12~~: ~~For each Availability Class report~~ Report the capacity shortfall for Peak Capacity, which indicates the amount to be procured through the supplementary capacity process in section 4.24.

Step 10~~13~~: Add the Facilities referred to in Step 10~~13~~(a) and (b) (each comprising a "group") in the order specified to the Network Access Quantity Model, except that before adding the next group of Facilities to the Network Access Quantity Model, undertake the applicable determination in Step 10~~13~~(c) for that group of Facilities before adding the next group of Facilities and repeating Step 10~~13~~(c) for that subsequent group of Facilities:

(a) new Early CRC Facilities that are also Network Augmentation Funding Facilities; then

(b) any other new Early CRC Facilities; then

(c) using the Network Access Quantity Model and, subject to the NAQ rules:

i. determine the preliminary Network Access Quantity for each Facility in the group of Facilities described in Step 10~~13~~(a); and

ii. determine the Indicative Network Access Quantity for each Facility in the group of Facilities described in Step 10~~13~~(b).

Step 11~~14~~: End.

Appendix 4: ~~[Blank]~~ Flexible Individual Reserve Capacity Requirements

Explanatory Note

Flexible IRCRs are calculated based on load contributions to the ramp period. This implements review outcome 2 of information paper two.

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

- Indicative Flexible Individual Reserve Capacity Requirements as required under clause 4.28.6A;
- Flexible Individual Reserve Capacity Requirements as required under clause 4.28.7A; and
- revised Flexible Individual Reserve Capacity Requirements as required under clause 4.28.11B.

AEMO must perform steps 1 to 4 to determine the Indicative Flexible Individual Reserve Capacity Requirements, Flexible Individual Reserve Capacity Requirements or revised Flexible Individual Reserve Capacity Requirements for a Trading Day.

For the purpose of this Appendix:

1. All references, apart from those in step 1(c)(ii), to meters are interval meters.

2. The Notional Wholesale Meter is to be treated as a registered interval meter. This meter is denoted by meter m=m*.

3. The New Notional Wholesale Meter, determined in accordance with step 1(c), is to be treated as a registered interval meter. This meter is denoted by $m=m^{+}$.

4. A meter measuring a Facility containing an Intermittent Load is to be included in these calculations as a single meter representing a Non-Dispatchable Load, with metered consumption calculated according to clause 2.30B.11 and clause 9 of this Appendix 4.

5. 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.

6. When calculating the Indicative Flexible Individual Reserve Capacity Requirements AEMO must assume that all meters registered to a Market Participant on the day of calculation will remain registered to that Market Participant for all future Trading Intervals.

7. A meter measuring a Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility not containing an Intermittent Load is to be included in these calculations with metered consumption calculated in accordance with clause 9 of this Appendix 4.

8. Each meter measuring an Aggregated Facility is to be included as a separate meter with metered consumption calculated in accordance with clause 9 of this Appendix 4.

9. Metered consumption for meter m, in Trading Interval t, is zero when AEMO issues a direction under clause 7.7.5 in respect of an Electric Storage Resource associated with m for a Dispatch Interval within t, otherwise it is -1 x min(0, SOMS(m, t)), where SOMS(m, t) is the Sent Out Metered Schedule of m in t.

Step 1: Determine the contribution of each meter m to the Flexible Reserve Capacity Requirement as:

(a) for a meter that was registered with AEMO for all of the Flexible IRCR Intervals, including the Notional Wholesale Meter:

$$\mathrm{FRCRC(m)} = \frac{\sum_{\mathrm{d \in FIRCRD}} \max_{\mathrm{t \in FIRCRI(d)}} \left(\mathrm{Demand\left(m, LATESTINT(d)\right) - Demand(m, t)}\right)}{3} \times 2$$

where:

i. Demand(m,t) is the metered consumption in MWh of meter m in Trading Interval t;

ii. d∈FIRCRD refers to all Trading Days containing Flexible IRCR Intervals; and

iii. t∈FIRCRI(d) refers to all Flexible IRCR Trading Intervals on Trading Day d; and

iv. LATESTINT(d) is the latest Flexible IRCR Trading Interval on Trading Day d;

(b) for a meter that was not registered with AEMO for all of the Flexible IRCR Intervals, but which was registered by the end of the previous Trading Month, except for the New Notional Wholesale Meter:

$$\mathrm{FRCRC(m)} = 2 \times \max_{\mathrm{M \in PTM}} \left(\frac{\sum_{\mathrm{d \in 3HRTD}} \left(\max_{\mathrm{t \in HRTI(d)}} \left(\mathrm{Demand\left(m, LATESTINT(d)\right) - Demand(m, t)}\right)\right)}{3} \right)$$

where:

i. Demand(m,t) is the metered consumption in MWh of meter m in Trading Interval t; and

ii. d∈ 3HRTD(M) refers to all Trading Days in the 3 High-Ramp Trading Days in Trading Month M;

iii. $t \in HRTI(d)$ refers to the Trading Interval with the highest Four-Hour Demand Increase on Trading Day d and the seven prior Trading Intervals;

iv. LATESTINT(d) is the Trading Interval with the highest Four-Hour Demand Increase on Trading Day d; and

iv. $M \in PTM$ refers to all Trading Months from the start of the current Capacity Year to the previous Trading Month inclusive; and

(c) for the New Notional Wholesale Meter:

$$\mathrm{FRCRC}(m^{+}) = \frac{\mathrm{FRCRC}(m^{*})}{\mathrm{NIMCount}(\mathrm{FMPCY})} \times \left(\mathrm{NIMCount}(\mathrm{PM}) - \mathrm{NIMCount}(\mathrm{FMPCY})\right)$$

where:

i. FIRCRC(m*) is the contribution to the Flexible Reserve Capacity Requirement by the Notional Wholesale Meter calculated under step 2(a);

ii. NIMCount(M) is the number of non-interval or accumulation meters that existed at the end of Trading Month M;

iii. FMPCY is the final Trading Month of the previous Capacity Year;

iv. PM is the previous Trading Month.

Step 2: For each Market Participant p, calculate the contribution to the Flexible Reserve Capacity Requirement as:

$$\mathrm{FRCRC}(p) = \sum_{m \in \mathrm{METERS}(p)} \mathrm{FRCRC}(m)$$

where:

(a) FRCRC(m) is the contribution to the Flexible Reserve Capacity Requirement of meter m calculated under step 1; and

(b) $m \in METERS(p)$ refers to all meters registered to Market Participant p.

Step 3: For each Market Participant p, calculate the Indicative Flexible Individual Reserve Capacity Requirement or Flexible Individual Reserve Capacity Requirement, as applicable as:

$$\mathrm{FIRCR}(p) = \frac{\mathrm{FRCRC}(p)}{\sum_{p} \mathrm{FRCRC}(p)} \times \mathrm{FRCR}$$

where:

(a) FRCRC(p) is the contribution to the Flexible Reserve Capacity Requirement by Market Participant p calculated under step 2;

(b) FRCR is the Flexible Reserve Capacity Requirement for the Capacity Year in which the relevant Trading Day falls.

Explanatory Note

Appendix 4A is deleted, as the required calculations are now covered in step 1(d) of the new appendix 5.

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

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

~~The Individual Intermittent Load Reserve Capacity Requirement is only to be determined for Intermittent Loads that are and continue to be deemed to be Intermittent Loads under clause 1.48.2.~~

~~Define:~~

- ~~MaxL(k,d) is the nominated load level for Intermittent Load k to apply for Trading Month n as specified in clause 4.28.8(c);~~
- ~~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 Requirement 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 Trading Month n (based on information provided to AEMO in accordance with clause 4.28.8(c)), 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 Trading Month n (based on information provided to AEMO in accordance with clause 4.28.8(c)), then set the Individual Intermittent Load Reserve Capacity Requirement for Intermittent Load k equal to zero.~~

Appendix 5: Peak Individual Reserve Capacity Requirements

Explanatory Note

Appendix 5 is amended to implement the new Peak IRCR calculation, which is significantly simplified by removal of the TDL/NTDL distinction. This implements review outcome 1 from information paper two.

The use of median demand is retained, though over a larger set of intervals.

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

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

AEMO must perform steps~~Steps~~ 1 to 3~~10A~~ to determine the Indicative Peak Individual Reserve Capacity Requirements, Peak Individual Reserve Capacity Requirements or revised Peak Individual Reserve Capacity Requirements for a Trading Day ~~Trading Month n~~.

AEMO must perform step~~Step~~ 1~~11~~ as required to determine the Peak 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 Peak Individual Reserve Capacity Requirements for the Trading Day ~~Trading Month n~~.

For the purpose of this Appendix:

1. All references, apart from those in step~~Step~~ 1(c)(ii)~~5A~~, to meters are interval meters.

2. 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 m=m*~~ v=v*~~.

3. The New Notional Wholesale Meter, determined in accordance with step~~Step~~ 1(c)~~5A~~, is to be treated as a registered interval meter. This meter is denoted by $m=m^{+}$ ~~measuring Temperature Dependent Load~~.

4. A meter measuring a Facility containing an Intermittent Load, that is and continues to be deemed to be an Intermittent Load under clause 1.48.2, is to be included in these

calculations as if it were two meters, one representing the Intermittent Load ~~and included in the set indexed by w,~~ and one representing other load at the Facility ~~and included in the set indexed by u or v as applicable~~, with metered consumption calculated according to clause 2.30B.10 and clause 9~~11~~ of this Appendix 5.

5. A meter measuring a Facility containing an Intermittent Load, for which an application was approved under clause 2.30B.6 on or after New WEM Commencement Day, is to be included in these calculations as a single meter representing a Non-Dispatchable Load ~~and included in the set indexed by u or v as applicable~~, with metered consumption calculated according to clause 2.30B.11 and clause 10~~12~~ of this Appendix 5.

6. 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.

~~7. 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").~~

~~8. 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.~~

9~~7~~. When calculating the Indicative Peak Individual Reserve Capacity Requirements AEMO must assume ~~it is assumed that~~ all meters registered to a Market Participant on the day of calculation will remain registered to that Market Participant for all future Trading Intervals ~~the entirety of Trading Month n~~.

10~~8~~. A meter measuring a Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility not containing an Intermittent Load is to be included in these calculations ~~and included in the set indexed by u or v as applicable,~~ with metered consumption calculated in accordance with clause 10~~12~~ of this Appendix 5.

11~~9~~. Each meter measuring an Aggregated Facility is to be included as a separate meter ~~and included in the set indexed by u or v as applicable,~~ with metered consumption calculated in accordance with clause 10~~12~~ of this Appendix 5.

12~~10~~. Metered consumption for meter m, in Trading Interval t, is zero when AEMO issues a direction under clause 7.7.5 in respect of an Electric Storage Resource associated with m for a Dispatch Interval within t, otherwise it is -1 x min(0, SOMS(m, t)), where SOMS(m, t) is the Sent Out Metered Schedule of m in t.

Step 1: Determine the contribution of each meter m to the Peak Reserve Capacity Requirement as:

(a) for a meter that is not an Intermittent Load meter and was registered with AEMO for all of the Peak IRCR Intervals, including the Notional Wholesale Meter, PRCRC(m) is two times the median metered consumption in MWh of meter m in the Peak IRCR Intervals.

(b) for a meter that is not an Intermittent Load meter and was not registered with AEMO for all of the Peak IRCR Intervals, but which was registered by the end of the previous Trading Month, except for the New Notional Wholesale Meter:

$$\mathrm{PIRCRC(m)} = 2 \times \max_{\mathrm{M \in PTM}}(\mathrm{Median4Peaks(m, M)})$$

where:

i. M∈PTM refers to all Trading Months from the first month after the end of the previous Hot Season to the previous Trading Month inclusive; and

ii. Median4Peaks(m,M) is the median metered consumption of meter m in the 4 Peak Intervals of Trading Month M.

(c) for the New Notional Wholesale Meter:

$$\mathrm{PRCRC(m^{+})} = \frac{\mathrm{PRCRC(m^{*})}}{\mathrm{NIMCount(FMPHS)}} \times (\mathrm{NIMCount(PM)} - \mathrm{NIMCount(FMHPS)})$$

where:

i. PRCRC(m*) is the contribution to the Peak Reserve Capacity Requirement by the Notional Wholesale Meter calculated under step 2(a);

ii. NIMCount(M) is the number of non-interval or accumulation meters that existed at the end of Trading Month M;

iii. FMPHS is the final month of the previous Hot Season;

iv. PM is the previous Trading Month;

(d) for an Intermittent Load meter:

i. if the Intermittent Load is registered and operating or AEMO reasonably expects it to be registered and operating during the relevant Trading Day (based on information provided to AEMO in accordance with clause 4.28.8(c)):

$$\mathrm{PRCRC(m)} = \mathrm{MaxL(m)} \times \mathrm{RM}$$

where:

1. MaxL(m) is the nominated load level for Intermittent Load m to apply for Trading Day d as specified in clause 4.28.8(c);

2. RM is the reserve margin for the Reserve Capacity Cycle defined as negative one plus the ratio of the Peak 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;

ii. otherwise zero.

Step 2: For each Market Participant p, calculate the contribution to the Peak Reserve Capacity Requirement as:

$$\mathrm{PRCRC(p)} = \sum_{\mathrm{m \in METERS(p)}} \mathrm{PRCRC(m)}$$

where:

(a) PRCRC(m) is the contribution to the Peak Reserve Capacity Requirement by meter m calculated under step 1; and

(b) m∈METERS(p) refers to all meters registered to Market Participant p.

Step 3: For each Market Participant p, calculate the Indicative Peak Individual Reserve Capacity Requirement or Peak Individual Reserve Capacity Requirement, as applicable, as:

$$\mathrm{PIRCR(p)} = \frac{\mathrm{PRCRC(p)}}{\sum_{\mathrm{p}} \mathrm{PRCRC(p)}} \times \mathrm{PRCR}$$

where:

(a) PRCRC(p) is the contribution to the Peak Reserve Capacity Requirement by Market Participant p calculated under step 2;

(b) PRCR is the Peak Reserve Capacity Requirement for the Capacity Year in which the relevant Trading Day falls.

~~Step 1: Calculate:~~

~~RR = min(RCR, CC)~~

~~FL = FL_RCR × 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~~

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

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

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

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

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

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

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

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

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

~~Step 5A:~~

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

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

~~Subtract the number of non-interval or accumulation meters disconnected 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.

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

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

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

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

Step 8: For each Market Participant i, calculate:

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

Step 8A: Calculate:

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

$NTDL\_Ratio = NRR / FL$

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

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

~~Step 8C: Calculate:~~

~~TDL_Ratio = (NRR - Sum(i, NTDLRCR(i))) / Sum(i, Sum(MTDL(v) × d(v,i)))~~

~~where~~

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

~~Step 8D: For each Market Participant i, calculate:~~

~~TDLRCR(i) = (Sum MTDL(v) × d(v,i)) × TDL_Ratio~~

~~Step 9: For each Market Participant i, calculate~~

~~X(i) = Sum(i, ILRCR(i) + NTDLRCR(i) + TDLRCR(i)) + Sum(u, NMNTCR(u) × d(u,i)) + Sum(v, NMTDCR(v) × d(v,i))~~

~~Step 10: Calculate:~~

~~Total_Ratio = RR / Sum(i, X(i))~~

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

~~X(i) × Total_Ratio~~

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

~~(a) for meter u at a connection point measuring Non-Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals equals (NTDL(u) x NTDL_Ratio x Total_Ratio);~~

~~(b) for meter v at a connection point measuring Temperature Dependent Load that was registered with AEMO for all of the 12 Peak SWIS Trading Intervals equals (TDL(v) 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).~~

Explanatory Note

Appendix 5A is deleted due to the removal of the TDL/NTDL distinction. This was decided in outcome 1 of information paper two.

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

~~This Appendix specifies how AEMO must determine whether or not to accept a Load measured by an interval meter nominated in accordance with clauses 4.28.8(a) or 4.28.8C as a Non-Temperature Dependent Load for the purposes of clause 4.28.9.~~

~~For the purpose of this Appendix:~~

- ~~AEMO must use the current set of meter data (as at the time when it commences its calculations);~~
- ~~the 4 Peak SWIS Trading Intervals in a Trading Month are the 4 Peak SWIS Trading Intervals determined and published by AEMO under clause 4.1.23B for that Trading Month; and~~

  ~~AEMO must treat each connection point measured by an interval meter measuring a Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility as if it were a separate Non-Dispatchable Load.~~

~~AEMO must perform the following steps (in sequential order) when determining whether or not to accept a Load measured by an interval meter nominated in accordance with clauses 4.28.8(a) or 4.28.8C as a Non-Temperature Dependent Load for the purposes of clause 4.28.9:~~

~~Step 1:~~

- ~~If, in accordance with clause 4.28.8(a), the Market Participant provides AEMO in Trading Month n-2 with the identity of an interval meter associated with that Market Participant which measures a Load that it nominates as a Non-Temperature Dependent Load from Trading Month n;~~
- ~~If the identity of the interval meter is provided by the date and time specified in clause 4.1.23; and~~
- ~~If the Load was treated as a Non-Temperature Dependent Load in Trading Month n-8,~~

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

~~(a) the median value of the metered consumption for the Load, calculated for the set of Trading Intervals defined as the 4 Peak 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, exceeded 1.0 MWh; and~~

(b) the metered consumption for the Load did not deviate downwards from the median value 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 for which:

i. the metered consumption was 0 MWh; or

ii. consumption was reduced at the request of AEMO; or

iii. AEMO has accepted a Consumption Deviation Application for the Load under clause 4.28.9D.

Step 2:

- If, in accordance with clauses 4.28.8(a) or 4.28.8C, the Market Participant provides AEMO in Trading Month n-2 with the identity of an interval meter associated with that Market Participant which measures a Load that it nominates as a Non-Temperature Dependent Load from Trading Month n;
- If the Load was 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 for the Load during the 4 Peak SWIS Trading Intervals in Trading Month n-3 exceeded 1.0 MWh; and

(b) the metered consumption for the Load did not deviate downwards from the median value in paragraph (a) by more than 10% for more than 10% of the time during Trading Month n-3, except during Trading Intervals for which:

i. the metered consumption was 0 MWh; or

ii consumption was reduced at the request of AEMO; or

iii. AEMO has accepted a Consumption Deviation Application for the Load under clause 4.28.9D.

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 the Load, calculated for 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 was used by AEMO to accept the Load as a Non-Temperature Dependent Load under Step 2 to the end of Trading Month n-3, exceeded 1.0 MWh; and

(b) the metered consumption for the Load did not deviate downwards from the median value 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 was 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 for which:

i. the metered consumption was 0 MWh; or

ii. consumption was reduced at the request of AEMO; or

iii. AEMO has accepted a Consumption Deviation Application for the Load under clause 4.28.9D.

Step 4:

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

Appendix 9: Relevant Level Determination

Explanatory Note

Appendix 9 is completely replaced to implement the new Relevant Level Method (RLM), as per outcome 11 from information paper 1.

It is now structured as follows:

- Part A defines terms
- Part B sets out the overall process, starting by determining the input data, and then iterating through the sets of committed facilities, proposed facilities, early certified facilities, and conditionally certified facilities, and finally publishing the results.
- Part C is a subroutine to determine the Fleet Effective Load Carying Capability (ELCC) (the total CRC available for allocation) for a given fleet of Facilities.
- Part D is a subroutine to determine expected unserved energy for a given fleet of Facilities and time period, by using Monte Carlo simulation of Forced Outages.

Unlike the current RLM (as in place before the RCM Reform Commencement), the whole five year period is explicitly recalculated each Reserve Capacity Cycle.

~~**Appendix 9 Overview**~~

- ~~Part A of this Appendix 9 sets out definitions and introductory material.~~
- ~~Part B sets out the Relevant Level Methodology.~~

~~Part A: Introduction~~

~~Interpretations and Definitions~~

~~A.1. This Appendix 9 presents the methodology for determining the Relevant Levels for Candidate Facilities for a given Reserve Capacity Cycle.~~

~~A.2. In this Appendix 9:~~

~~(a) a Candidate Facility is a Facility, or a component of a Facility, for which:~~

~~i. a Market Participant has applied for:~~

~~1. Certified Reserve Capacity for the relevant Reserve Capacity Cycle under section 4.9;~~

~~2. Conditional Certified Reserve Capacity for a future Reserve Capacity Cycle under section 4.9, where AEMO is required under clause 4.9.7A to process the application at the time it processes applications for Certified Reserve Capacity for the relevant Reserve Capacity Cycle; or~~

~~3. Early Certified Reserve Capacity for a Reserve Capacity Cycle under clause 4.28C.2, where AEMO is required to process the application at the time it processes applications~~

for Certified Reserve Capacity for the relevant Reserve Capacity Cycle;

ii. the Market Participant's application includes all supporting information required under section 4.10 or clause 4.28C.5 (as applicable); and

iii. the Certified Reserve Capacity, Conditional Certified Reserve Capacity or Early Certified Reserve Capacity (as applicable) is required to be determined in accordance with clause 4.11.2(b);

(b) the full operation date of a Candidate Facility for the relevant Reserve Capacity Cycle ("Full Operation Date") is:

i. the date provided under clause 4.10.1(c)(iii)(7) or revised in accordance with clause 4.27.11A, where at the time the application for certification of Reserve Capacity is made the Candidate Facility is yet to enter service; or

ii. the date most recently provided for a Reserve Capacity Cycle under clause 4.10.1(k) otherwise; and

(c) a Candidate Facility will be considered to be:

i. a new Candidate Facility if the five-year period identified in Step 1(a) of this Appendix 9 commenced before 8:00 AM on the Full Operation Date for the Facility ("New Candidate Facility"); or

ii. an existing Candidate Facility ("Existing Candidate Facility") otherwise.

A.3. AEMO must determine the Relevant Levels for Candidate Facilities for a given Reserve Capacity Cycle by following each of the steps set out in Part B of this Appendix 9.

Part B: Process Steps

Determining Existing Facility Load for Scheduled Generation

Step 1: Identify:

(a) the five year period ending at 8:00 AM on 1 April of Capacity Year 1 of the relevant Reserve Capacity Cycle;

(b) any 12 month period, from 1 April to 31 March, occurring during the five year period identified in Step 1(a), where the 12 Trading Intervals with the highest Existing Facility Load for Scheduled Generation in that 12 month period have not previously been determined under this Appendix 9; and

(c) any 12 month period, from 1 April to 31 March, occurring during the five year period identified in Step 1(a), where the 12 Trading Intervals with the

highest Existing Facility Load for Scheduled Generation in that 12 month period have previously been determined under this Appendix 9.

Step 2: Determine the quantity of electricity (in MWh) sent out by each Candidate Facility:

(a) using Facility Sub-Metering, where the Candidate Facility is a component of a Facility for which Facility Sub-Metering is required to be installed; and

(b) using Sent Out Metered Schedules, where the Candidate Facility is not a component of a Facility for which Facility Sub-Metering is required to be installed,

for each of the Trading Intervals in the period identified in Step 1(b).

Step 3: For each Candidate Facility, identify any Trading Intervals in the period identified in Step 1(b) where:

(a) the Candidate Facility, other than a Facility in the Balancing Portfolio, was directed to restrict its output under a Dispatch Instruction as provided in a schedule under clause 7.13.1(c); or

(b) the Candidate Facility, if in the Balancing Portfolio, was instructed by AEMO to deviate from its Dispatch Plan or change its commitment or output as provided in a schedule under clause 7.13.1C(d); or

(c) the Candidate Facility was affected by a Consequential Outage; or

(d) the Candidate Facility was directed to restrict its output under an Operating Instruction issued in accordance with a NCESS Contract, as provided in a schedule under clause 7.13.1(cC).

Step 4: For each Candidate Facility and Trading Interval identified in Step 3(a):

(a) identify the actual quantity as determined in Step 2 if:

i. AEMO has made a revised estimate of the maximum quantity in accordance with clause 7.7.5A(c) and the WEM Procedure specified in clause 7.7.5A; and

ii. the revised estimate of the maximum quantity is lower than the actual quantity as determined in Step 2;

(b) identify the actual quantity as determined in Step 2 if:

i. Step 4(a) does not apply; and

ii. the estimated maximum quantity determined by AEMO under clause 7.13.1(eF) is lower than the actual quantity as determined in Step 2; and

(c) if Steps 4(a) and 4(b) do not apply:

i. identify the revised estimate of the maximum quantity determined by AEMO in accordance with the WEM Procedure specified in clause 7.7.5A; or

ii. if there is no revised estimate, identify the estimate determined by AEMO under clause 7.13.1(eF).

Step 5: For each Candidate Facility and Trading Interval identified in Step 3(b) use:

(a) the estimate recorded by AEMO under clause 7.13.1C(e); and

(b) the quantity determined for the Candidate Facility and Trading Interval in Step 2,

to estimate the quantity of energy (in MWh) that would have been sent out by the Candidate Facility had it not complied with AEMO's instruction to change its commitment or output during the Trading Interval.

Step 6: For each Candidate Facility and Trading Interval identified in Step 3(c) use:

(a) the Unadjusted Consequential Outage Quantity for the Candidate Facility for the Trading Interval;

(b) the quantity determined for the Candidate Facility and Trading Interval in Step 2; and

(c) the information recorded by AEMO under clause 7.13.1C(a),

to estimate the quantity of energy (in MWh) that would have been sent out by the Candidate Facility had it not been affected by the Consequential Outage during the Trading Interval.

Step 6A: For each Candidate Facility and Trading Interval identified in Step 3(d) use:

(a) the schedule of Operating Instructions determined by AEMO under clause 7.13.1(cC);

(b) the quantity determined for the Candidate Facility and Trading Interval in Step 2; and

(c) the information recorded by AEMO under clause 7.13.1C(a),

to estimate the quantity of energy (in MWh) that would have been sent out by the Candidate Facility had it not been subject to an Operating Instruction during the Trading Interval.

Step 7: Determine for each Trading Interval in each 12 month period identified in Step 1(b) the Existing Facility Load for Scheduled Generation (in MWh) as:

(Total_Generation + DSP_Reduction + Interruptible_Reduction + Involuntary_Reduction) – CF_Generation

where

Total_Generation is the Total Sent Out Generation of all Registered Facilities;

DSP_Reduction is the total quantity of Deemed DSM Dispatch for all Demand Side Programmes for that Trading Interval;

Interruptible_Reduction is the total quantity by which all Interruptible Loads reduced their consumption in accordance with the terms of an Ancillary Service Contract, as recorded by AEMO under clause 7.13.1C(c);

Involuntary_Reduction is the total quantity of energy not served due to involuntary load shedding (manual and automatic), as recorded by AEMO under clause 7.13.1C(b); and

CF_Generation is the total sent out generation of all Candidate Facilities, as determined in Step 2 or estimated in Steps 4, 5, 6 or 6A as applicable.

Step 8: Determine for each 12 month period identified in Step 1(b) the 12 Trading Intervals, occurring on separate Trading Days, with the highest Existing Facility Load for Scheduled Generation.

Step 9: Identify, for each 12 month period identified in Step 1(c), the following:

(a) the Existing Facility Load for Scheduled Generation previously determined under this Appendix 9 for each Trading Interval in the 12 month period;

(b) subject to Step 9A, the sent out generation (in MWh) for each Candidate Facility and for each Trading Interval in that 12 month period, where that sent out generation was used to determine the CF_Generation (which is one of the variables used to determine the Existing Facility Load for Scheduled Generation in Step 7) for that Trading Interval; and

(c) the 12 Trading Intervals occurring on separate Trading Days that were previously determined to have the highest Existing Facility Load for Scheduled Generation in the 12 month period.

Step 9A: For the purposes of Step 9(b), if:

(a) AEMO has determined a revised estimate of the maximum quantity in accordance with the WEM Procedure specified in clause 7.7.5A;

(b) the revised estimate relates to a Candidate Facility and a Trading Interval in a 12 month period identified in Step 1(c); and

(c) AEMO determined the sent out generation for that Candidate Facility and for that Trading Interval in accordance with Step 4 before it revised the estimate,

then AEMO must redetermine the sent out generation for that Candidate Facility and that Trading Interval in accordance with Step 4.

Determining New Facility Load for Scheduled Generation

Step 10: For each New Candidate Facility determine, for each Trading Interval in the period identified in Step 1(a) that falls before 8:00 AM on the Full Operation Date for the Candidate Facility, an estimate of the quantity of energy (in MWh) that would have been sent out by the Candidate Facility in the Trading Interval, if it had been in operation with the configuration proposed under clause 4.10.1(dA) in the relevant

application for certification of Reserve Capacity. The estimates must reflect the estimates in the expert report provided for the Candidate Facility under clause 4.10.3, unless AEMO reasonably considers the estimates in the expert report to be inaccurate.

Step11: For each New Candidate Facility determine, for each Trading Interval in the period identified in Step 1(a), the New Facility Load for Scheduled Generation (in MWh) as:

(a) if the Trading Interval falls before 8:00 AM on the Full Operation Date for the Facility:

EFLSG + Actual_CF_Generation – Estimated_CF_Generation

where

EFLSG is the Existing Facility Load for Scheduled Generation for the Trading Interval, determined in Step 7 or identified in Step 9(a) as applicable;

Actual_CF_Generation is the sent out generation of the New Candidate Facility for the Trading Interval, as identified in Step 9(b), determined in Step 2 or estimated in Steps 4, 5, 6 or 6A as applicable; and

Estimated_CF_Generation is the quantity determined for the New Candidate Facility and the Trading Interval in Step 10;

or

(b) the Existing Facility Load for Scheduled Generation for the Trading Interval, otherwise.

Step 12: For each New Candidate Facility determine, for each 12 month period identified in Step 1(a), the 12 Trading Intervals, occurring on separate Trading Days, with the highest New Facility Load for Scheduled Generation.

Determining the Facility Average Performance Level

Step 13: For each Existing Candidate Facility, determine the 60 quantities comprising:

(a) the MWh quantities determined in Step 2 or estimated in Steps 4, 5, 6 or 6A as applicable for each of the Trading Intervals determined in Step 8, multiplied by 2 to convert to units of MW; and

(b) the MWh quantities determined in Step 9(b) for each of the Trading Intervals identified in Step 9(c), multiplied by 2 to convert to units of MW.

Step 14: For each New Candidate Facility, determine the 60 quantities comprising:

(a) the MWh quantities identified in Step 9(b), determined in Step 2 or estimated in Steps 4, 5, 6 or 6A as applicable for each of the Trading Intervals identified in Step 12 that fall after 8:00 AM on the Full Operation

Date for the Candidate Facility, multiplied by 2 to convert to units of MW; and

(b) the MWh quantities determined in Step 10 for each of the Trading Intervals identified in Step 12 that fall before 8:00 AM on the Full Operation Date of the Candidate Facility, multiplied by 2 to convert to units of MW.

Step 15: Determine the average performance level (in MW) for each Candidate Facility f ("Facility Average Performance Level") as the mean of the 60 quantities determined for Candidate Facility f in Step 13 or Step 14 as applicable.

Determine the Facility Adjustment Factor

Step 16: Determine the variance (in MW) for each Candidate Facility f ("Facility Variance") as the variance of the MW quantities determined for Candidate Facility f in Step 13 or Step 14 as applicable.

Step 17: Determine the facility adjustment factor (in MW) for each Candidate Facility f ("Facility Adjustment Factor") in accordance with the following formula:

Facility Adjustment Factor = min(G x Facility Variance (f), Facility Average Performance Level (f) / 3 + K x Facility Variance (f))

Where

G = K + U / Facility Average Performance Level (f)

K is determined in accordance with the following table:

Reserve Capacity Cycle	**Capacity Year**	**K value**
2012	2014/15	0.001
2013	2015/16	0.002
2014	2016/17	0.003
2015 onwards	From 2017/18 onwards	To be determined by the Economic Regulation Authority in accordance with clause 4.11.3C.

U is determined in accordance with the following table:

Reserve Capacity Cycle	**Capacity Year**	**U**
2012	2014/15	0.211
2013	2015/16	0.422
2014	2016/17	0.635

~~2015 onwards~~	~~From 2017/18 onwards~~	~~To be determined by the Economic Regulation Authority in accordance with clause 4.11.3C.~~

~~Determining the Relevant Level for a Candidate Facility~~

~~Step 18: Determine the Relevant Level for each Candidate Facility f (in MW) in accordance with the following formula:~~

~~Relevant Level (f) = max(0, Facility Average Performance Level (f) - Facility Adjustment Factor (f))~~

~~Publication of information~~

~~Step 19: Publish on the WEM Website by 1 June of Year 1 of the relevant Reserve Capacity Cycle on a provisional basis:~~

~~(a) a forecast of the Trading Intervals that may be identified in Step 8; and~~

~~(b) a forecast of the Existing Facility Load for Scheduled Generation quantities that may be determined in Step 7.~~

~~Step 20: Publish on the WEM Website within three Business Days after the date specified in clause 4.1.11 (as modified or extended) for the relevant Reserve Capacity Cycle:~~

~~(a) the Trading Intervals identified in Step 8; and~~

~~(b) the Existing Facility Load for Scheduled Generation quantities determined in Step 7.~~

~~Step 21: Publish on the WEM Website the following information identified for a Reserve Capacity Cycle under the Relevant Level Methodology:~~

~~(a) the Existing Facility Load for Scheduled Generation for each Trading Interval in the five year period determined under Step 1(a) of Appendix 9; and~~

~~(b) the 12 Trading Intervals occurring on separate Trading Days with the highest Existing Facility Load for Scheduled Generation for each 12 month period in the five year period.~~

Part A: Introduction

Interpretations and Definitions

A.1. This Appendix 9 presents the method for determining the Relevant Levels for Facilities or components of Facilities ("**Candidates**") for which:

(a) Market Participants have applied for:

i. Certified Reserve Capacity for a given Reserve Capacity Cycle ("**Current Reserve Capacity Cycle**") under section 4.9;

ii. Conditional Certified Reserve Capacity for a future Reserve Capacity Cycle under section 4.9 and AEMO is required under clause 4.9.7A to process the application at the time it processes applications for Certified Reserve Capacity for the Current Reserve Capacity Cycle; or

iii. Early Certified Reserve Capacity for a Reserve Capacity Cycle under clause 4.28C.2 and AEMO is required under clause 4.28C.7 to process the application at the time it processes applications for Certified Reserve Capacity for the Current Reserve Capacity Cycle;

(b). the Market Participant's application includes all required supporting information and are deemed by AEMO to be complete; and

(c). the Certified Reserve Capacity, Conditional Certified Reserve Capacity or Early Certified Reserve Capacity (as applicable) is required to be determined in accordance with clause 4.11.2(b);

A.2 In this Appendix 9:

(a) a reference to a step is the process step so numbered in this Appendix 9;

(b) the steps in Parts B and C are to be carried out sequentially unless stated otherwise;

(c) the full operation date of a Candidate for the Current Reserve Capacity Cycle ("**Full Operation Date**") is:

i. if at the time the application is made the Candidate is yet to enter service, the date provided under clause 4.10.1(c)(iii)(7) or revised in accordance with clause 4.27.11A; or

ii. otherwise the date most recently provided for a Reserve Capacity Cycle under clause 4.10.1(k);

(d) a "**Committed Candidate**" is a Candidate which is the subject of an application for Certified Reserve Capacity for the Current Reserve Capacity Cycle and is deemed by AEMO to be committed;

(e) a "**Proposed Candidate**" is a Candidate which is the subject of an application for Certified Reserve Capacity for the Current Reserve Capacity Cycle and is deemed by AEMO to not be committed;

(f) an "**Early Candidate**" is a Candidate which is the subject of an application for Early Certified Reserve Capacity for a future Reserve Capacity Cycle that AEMO is required, under clause 4.28C.7, to process at the time it processes applications for Certified Reserve Capacity for the Current Reserve Capacity Cycle; and

(g) a "**Conditional Candidate**" is a Candidate which is the subject of an application for Conditional Certified Reserve Capacity for a future Reserve

Capacity Cycle that AEMO is required, under clause 4.9.7A, to process at the time it processes applications for Certified Reserve Capacity for the Current Reserve Capacity Cycle.

A.3. AEMO must determine the Relevant Levels for Candidates for the Current Reserve Capacity Cycle by following each of the steps set out in Part B, using the subroutines in Part C and Part D as specified.

Part B: Process Steps

Explanatory Note

Part B contains the core of the Relevant Level Method.

Steps B.1 to B.4 set up the input parameters for later steps:

- Step B.1 determines the historical output for each relevant Facility. This step uses estimates for:
  - Trading Intervals before commissioning, and
  - Trading Intervals where Facility output was curtailed
- Step B.2 determines the Reference Demand Profile by:
  - Adding back any load curtailment, including DSP dispatch and interruptible load events
  - Adjusting to account for the change in behind-the-meter solar generation penetration between the historical year and year 3 of the current Reserve Capacity Cycle
  - Removing the Capacity Year with the lowest DER adjusted peak demand (current drafting uses historical peak)
  - Scaling each historical Capacity Year to the forecast year 3 10% POE peak demand
- Step B.3 determines parameters relating to Non-Candidate Facilities (those in Capability Class 1 and 2), for use in the Monte Carlo analysis
- Step B.4 determines the Facility Average Performance Level for each relevant Facility as the average output during historical IRCR intervals

Step B.1: Determine Candidate Historical Output

B.1.1 For each Candidate, determine:

(a) for each Trading Interval (if any) in the RLM Reference Period that falls after 8:00 AM on the Full Operation Date for the Candidate, the quantity of energy (in MWh) sent out by the Candidate using Meter Data Submissions using:

i. Facility Sub-Metering, if the Candidate is a component of a Facility for which Facility Sub-Metering is required to be installed; and

ii. Sent Out Metered Schedules, if the Candidate is not a component of a Facility for which Facility Sub-Metering is required to be installed,

(b) for each Trading Interval (if any) in the RLM Reference Period that falls before 8:00 AM on the Full Operation Date for the Candidate, an estimate

of the quantity of energy (in MWh) that would have been sent out by the Candidate in the Trading Interval, if it had been in operation with the configuration proposed under clause 4.10.1(dA) in the relevant application for certification of Reserve Capacity. The estimates must reflect the estimates in the expert report provided for the Candidate under clause 4.10.3, unless AEMO reasonably considers the estimates in the expert report to be inaccurate.

B.1.2 For each Candidate, identify any Trading Intervals in the RLM Reference Period that fall after 8:00 AM on the Full Operation Date for the Candidate where the output of the parent Facility was restricted by a Dispatch Instruction or Network limitation.

B.1.3 For each Candidate and Trading Interval identified in step B.1.2 identify the higher of:

(a) the actual quantity as determined in step B1.1(a); and

(b) if AEMO made a revised estimate under clause 7.13.7 that estimate, and otherwise AEMO's estimate made under clause 7.13.6.

B.1.4 Determine the "**Historical Output"** for each Candidate for each Trading Interval t in the RLM Reference Period as:

(a) for Trading Intervals that fall after 8:00 AM on the Full Operation Date for the Candidate, the MWh quantity determined in step B.1.1(a) or estimated in step B.1.3 as applicable, multiplied by 2 to convert to units of MW; and

(b) for Trading Intervals that fall before 8:00 AM on the Full Operation Date for the Candidate, the MWh quantity determined in step B.1.1(b) for the Candidate and Trading Interval, multiplied by 2 to convert to units of MW.

Step B.2: Determine Reference Demand Profile

B.2.1 Determine the "**Observed Demand"** (in MW) for each Trading Interval in the RLM Reference Period as:

$$\text{Observed Demand}(t) = (\text{Total Generation}(t) + \text{Interruptible Reduction}(t) + \text{Involuntary Reduction}(t) + \text{DSP Reduction}(t)) \times 2$$

where:

(a) Total Generation(t) is the Total Sent Out Generation of all Registered Facilities in Trading Interval t, as determined from Meter Data Submissions;

(b) Interruptible Reduction(t) is the quantity published under clause 7.13.1F(b) for Trading Interval t;

(c) Involuntary Reduction(t) is the quantity published under clause 7.13.1F(a) for Trading Interval t; and

(d) DSP_Reduction(t) is the quantity published under clause 7.13.1F(c) for Trading Interval t.

B.2.2 Determine the "**DER Adjusted Demand Profile**" for the RLM Reference Period by adjusting the Observed Demand for each Trading Interval determined under step B.2.1 to account for the change in behind-the-meter photovoltaic capacity in the SWIS over time, so that the resulting system demand is equal to AEMO's best estimate of what the Observed Demand would have been in that Trading Interval if the level of behind-the-meter photovoltaic capacity had been equal to the level that AEMO expects to exist on 1 October in Year 3 of the Current Reserve Capacity Cycle.

B.2.3 Identify the Capacity Year in the RLM Reference Period with the lowest maximum demand in the DER Adjusted Demand Profile.

B.2.4 Determine the "**ELCC Reference Period**" by selecting all Trading Intervals in the RLM Reference Period except those in the Capacity Year identified in step B.2.3.

B.2.5 Determine the "**Reference Demand Profile"** for the ELCC Reference Period by adjusting the DER Adjusted Demand Profile so that the peak demand and total annual energy for each Capacity Year in the ELCC Reference Period matches the values determined for the Current Capacity Year in the scenario described in clause 4.5.10(a)(iv).

Step B.3: Determine Non-Candidate fleet parameters

B.3.1 Identify all Facilities or components of Facilities ("**Non-Candidates**") that:

(a) are committed;

(b) AEMO expects to assign Certified Reserve Capacity for the Current Reserve Capacity Cycle; and

(c) are not Candidates.

B.3.2. Determine the "**Non-Candidate Forced Outage Rate**" for each Non-Candidate that is a Non-Intermittent Generating System or Electric Storage Resource as the Forced Outage rate for that Non-Candidate, as determined under clause 4.11.1A for the Current Reserve Capacity Cycle.

B.3.3. Determine the Non-Candidate Forced Outage Rate for each Non-Candidate that is a Demand Side Programme as zero.

B.3.4. Determine the "**Default Capacity Obligation Quantity**" for each Non-Candidate f for each Trading Interval t in the RLM Reference Period as follows:

(a) the quantity of Peak Certified Reserve Capacity that AEMO expects to assign to Non-Candidate f for the Current Reserve Capacity Cycle if:

i. Non-Candidate f is a Non-Intermittent Generating System; or

ii. Non-Candidate f is an Electric Storage Resource and Trading Interval t is a Peak Electric Storage Resource Obligation Interval for Non-Candidate f; or

iii. Non-Candidate f is a Demand Side Programme and Trading Interval t falls in a period specified for the Facility under clause 4.10.1(f)(vi);

(b) zero otherwise.

Step B.4: Determine the Facility Average Performance Level

B.4.1. Identify all Peak IRCR Intervals for each Capacity Year in the ELCC Reference Period.

B.4.2. Count the number of Trading Intervals identified in step B.4.1.

B.4.3. For each Candidate, determine the "**Facility Average Performance Level**" as:

$$\mathrm{FAPL}_c = \frac{\sum_{t \in \mathrm{IRCRIntervals}} \mathrm{HistoricalOutput}_{c,t}}{\mathrm{IntervalCount}}$$

where:

(a) $\mathrm{HistoricalOutput}_{c,t}$ is the Historical Output for Candidate c in Trading Interval t determined under step B.4.1;

(b) $t \in \mathrm{IRCRIntervals}$ denotes the set of Trading Intervals identified in step B.4.1;

(c) IntervalCount refers to the number of Trading Intervals determined in step B.4.2.

Explanatory Note

Steps B.5 to B.8 determine the Relevant Levels for each of four groups of candidate facilities. The groups are evaluated sequentially because facilities in each group can be allocated Certified Reserve Capacity at different times. The groups are:

- Committed Candidates – Facilities which are in commercial operation or are committed to be so for the relevant Capacity Year
- Proposed Candidates – Facilities which could be commissioned for the relevant Capacity Year, but are not committed
- Early Candidates – Facilities for which Early Certified Reserve Capacity has been requested for a future capacity cycle (i.e. they will be commissioned in a year after the relevant Capacity Year, but have to commit some years ahead)
- Conditional Candidates – Facilities for which Conditional Certified Reserve Capacity has been requested for a future capacity cycle (for greater certainty further ahead of a commitment decision)

Each step B.5 through B.8:

- Uses Part C to determine the fleet Equivalent Load Carrying Capacity (ELCC)
- Determines the fleet scaling factor as the fleet ELCC divided by the sum of Facility Average Performance Levels (during historical IRCR intervals) for the fleet
- Determines the Relevant Level for each Facility in the fleet as the Facility Average Performance Factor multiplied by the fleet scaling factor.

If the total nameplate capacity of the Proposed, Early, or Conditional fleet is less than 5 MW, it is likely too small to generate ELCC results that are meaningfully different from the previous fleet. A fleet of less than 5 MW is assumed to have the same ratio of nameplate capacity to ELCC as the previous fleet.

Step B.5: Determine Relevant Levels for Committed Candidates

B.5.1. Determine the "**Committed Fleet Capacity**" for the ELCC Reference Period, by applying the subroutine in Part C using the fleet of Committed Candidates as the Part C Candidate Fleet;

B.5.2 Determine the "**Committed Candidate Scaling Factor**" as:

$$\mathrm{CCSF} = \frac{\mathrm{CFC}}{\sum_{c \in \mathrm{CC}} \mathrm{FAPL_c}}$$

where:

(a) CFC is the Committed Fleet Capacity determined in step B.5.1;

(b) c ∈ CC denotes all Committed Candidates; and

(c) FAPLc is the Facility Average Performance Level for Candidate c determined in step B.4.3.

B.5.3. Determine the Relevant Level for each Committed Candidate c as:

$$\mathrm{RelevantLevel_c} = \max(0, \mathrm{FAPL_c} \times \mathrm{CCSF})$$

where:

(a) $\mathrm{FAPL_c}$ is the Facility Average Performance Level of Candidate c determined in step B.4.3; and

(b) CCSF is the Committed Candidate Scaling Factor determined in step B.5.2.

Explanatory Note

If there are no Proposed Facilities, the Proposed Fleet ELCC will be zero.

Step B.6: Determine Relevant Levels for Proposed Candidates

B.6.1 Determine the "**Committed and Proposed Fleet Capacity**" for the ELCC Reference Period as:

(a) if the sum of the nameplate capacities of all Proposed Candidates is greater than or equal to 5 MW, by applying the subroutine in Part C using the fleet of Committed Candidates and Proposed Candidates as the Part C Candidate Fleet;

Explanatory Note

If there is less than 5 MW of capacity in the fleet, the quantity of capacity is likely too small to calculate a meaningful ELCC that is not mostly noise. In this case, the fleet allocation will be set using the scaling factor from the previous step.

(b) Otherwise, the Committed Fleet Capacity determined in step B.5.1, plus:

i. the sum of the Facility Average Performance Levels of all Proposed Candidates; multiplied by

ii. the Committed Candidate Scaling Factor determined in step B.5.2.

B.6.2 Determine the "**Proposed Fleet Capacity**" for the ELCC Reference Period as:

$$\mathrm{PFC} = \mathrm{CPFC} - \mathrm{CFC}$$

where:

(a) CPFC is the Committed and Proposed Fleet Capacity determined in step B.6.1; and

(b) CFC is the Committed Fleet Capacity determined in step B.5.1.

B.6.3 Determine the "**Proposed Candidate Scaling Factor**" as:

(a) If the sum of the nameplate capacities of all Proposed Candidates is greater than or equal to 5 MW:

$$\mathrm{PCSF} = \frac{\mathrm{PFC}}{\sum_{c \in \mathrm{PC}} \mathrm{FAPL}_c}$$

where:

i. PFC is the Proposed Fleet Capacity determined in step B.6.2;

ii. $c \in \mathrm{PC}$ denotes all Proposed Candidates; and

iii. FAPL_c is the Facility Average Performance Level for Candidate c determined in step B.4.3.

Explanatory Note

If there is less than 5 MW of capacity in the fleet, the quantity of capacity is likely too small to calculate a meaningful ELCC that is not mostly noise. In this case, the scaling factor from the previous step will be used.

(b) Otherwise, the Committed Candidate Scaling Factor determined in step B.5.2.

B.6.4. Determine the Relevant Level for each Proposed Candidate c as:

$$\text{RelevantLevel}_c = \max(0, \text{FAPL}_c \times \text{PCSF})$$

where:

(a) FAPLc is the Facility Average Performance Level of Candidate c determined in step B.4.3; and

(b) PCSF is the Proposed Candidate Scaling Factor determined in step B.6.3.

Step B.7: Determine Relevant Levels for Early Candidates

B.7.1 Determine the "**Committed Proposed and Early Fleet Capacity**" for the ELCC Reference Period as:

(a) If the sum of the nameplate capacities of all Early Candidates is greater than or equal to 5 MW, by applying the subroutine in Part C using the fleet of Committed Candidates, Proposed Candidates, and Early Candidates as the Part C Candidate Fleet;

(b) Otherwise, the Committed and Proposed Fleet Capacity determined in step B.6.1, plus:

i. the sum of the Facility Average Performance Levels of all Early Candidates; multiplied by

ii. the Committed Candidate Scaling Factor determined in step B.5.2.

B.7.2 Determine the "**Early Fleet Capacity**" for the ELCC Reference Period as:

$$\text{EFC} = \text{CPEFC} - \text{CPFC}$$

where:

(a) CPEFC is the Committed and Proposed and Early Fleet Capacity determined in step B.7.1; and

(b) CPFC is the Committed and Proposed Fleet Capacity determined in step B.6.1.

B.7.3 Determine the "**Early Candidate Scaling Factor**" as:

(a) If the sum of the nameplate capacities of all Early Candidates is greater than or equal to 5 MW:

$$\text{ECSF} = \frac{\text{EFC}}{\sum_{c \in \text{EC}} \text{FAPL}_c}$$

where:

i. EFC is the Early Fleet Capacity determined in step B.7.2;

ii. c ∈ EC denotes all Early Candidates; and

iii. FAPL_c is the Facility Average Performance Level for Candidate c determined in step B.4.3.

(b) Otherwise, the Committed Candidate Scaling Factor determined in step B.5.2.

B.7.4. Determine the Relevant Level for each Early Candidate c as:

$$\text{RelevantLevel}_c = \max(0, \text{FAPL}_c \times \text{ECSF})$$

where:

(a) FAPLc is the Facility Average Performance Level of Candidate c determined in step B.4.3; and

(b) ECSF is the Early Candidate Scaling Factor determined in step B.7.3.

Step B.8: Determine Relevant Levels for Conditional Candidates

B.8.1 Determine the "**Committed Proposed Early and Conditional Fleet Capacity**" for the ELCC Reference Period as:

(a) If the sum of the nameplate capacities of all Conditional Candidates is greater than or equal to 5 MW, by applying the subroutine in Part C using the fleet of Committed Candidates, Proposed Candidates, Early Candidates, and Conditional Candidates as the Part C Candidate Fleet;

(b) Otherwise, the Committed and Proposed and Early Fleet Capacity determined in step B.7.1, plus:

i. the sum of the Facility Average Performance Levels of all Committed Candidates; multiplied by

ii. the Committed Candidate Scaling Factor determined in step B.5.2.

B.8.2 Determine the "**Conditional Fleet Capacity**" for the ELCC Reference Period as:

$$\text{ConFC} = \text{CPEConFC} - \text{CPEFC}$$

where:

(a) CPEConFC is the Committed and Proposed and Early and Conditional Fleet Capacity determined in step B.8.1; and

(b) CPEFC is the Committed and Proposed and Early Fleet Capacity determined in step B.7.1.

B.8.3 Determine the "**Conditional Candidate Scaling Factor**" as:

(a) If the sum of the nameplate capacities of all Conditional Candidates is greater than or equal to 5 MW:

$$\text{ConCSF} = \frac{\text{ConFC}}{\sum_{c \in \text{ConC}} \text{FAPL}_c}$$

where:

i. ConFC is the Conditional Fleet Capacity determined in step B.8.2;

ii. c ∈ ConC denotes all Conditional Candidates; and

iii. FAPL_c is the Facility Average Performance Level for Candidate c determined in step B.4.3.

(b) Otherwise, the Committed Candidate Scaling Factor determined in step B.5.2.

B.8.4. Determine the Relevant Level for each Conditional Candidate c as:

$$\text{RelevantLevel}_c = \max(0, \text{FAPL}_c \times \text{ConCSF})$$

where:

(a) FAPLc is the Facility Average Performance Level of Candidate c determined in step B.4.3; and

(b) ConCSF is the Conditional Candidate Scaling Factor determined in step B.8.3.

Step B.9: Publish Inputs and Results on the WEM Website

Explanatory Note

Step B.9 sets out publication requirements for RLM inputs and outputs.

AEMO must publish RLM information in two parts:

- Input data for existing and known facilities must be published alongside the ESOO
- Results must be published in late August.

B.9.1 Publish on the WEM Website by the date specified in clause 4.1.9 (as modified or extended) for the relevant Reserve Capacity Cycle:

(a) the Observed Demand for the RLM Reference Period determined in step B.2.1

(b) the estimated historical and future levels of behind-the-meter photovoltaic capacity in the SWIS that AEMO used to determine the DER Adjusted Demand Profile for the RLM Reference Period in step B.2.2;

(c) the DER Adjusted Demand Profile for the RLM Reference Period determined in step B.2.2;

(c) the Reference Demand Profile for the RLM Reference Period determined in step B.2.5;

(h) for each Committed Candidate:

i. the Historical Output values determined in step B.1.4 for each Trading Interval in the RLM Reference Period;

ii. the Facility Average Performance Level determined in step B.4.3.

B.9.2 Publish on the WEM Website by the date specified in clause 4.1.16 (as modified or extended) for the Current Reserve Capacity Cycle:

(a) the Committed Fleet Capacity determined in step B.5.1;

(b) the Proposed Fleet Capacity determined in step B.6.1;

(c) the Early Fleet Capacity determined in step B.7.1;

(d) the Conditional Fleet Capacity determined in step B.8.1;

(e) for each Candidate:

i. whether the Candidate is a Committed Candidate, a Proposed Candidate, an Early Candidate or a Conditional Candidate;

ii. the Historical Output values determined in step B.1.4 for each Trading Interval in the RLM Reference Period;

iii. the Facility Average Performance Level determined in step B.4.3.

Part C: Subroutine to determine total capacity to be allocated to a given Candidate Fleet

Explanatory Note

Part C calculates the ELCC for a given fleet of Candidate Facilities. It uses Part D to determine:

- A Whole Period ELCC (C.2) for the ELCC Reference Period (which excludes the Capacity Year with the lowest peak demand)
- A Capacity Year ELCC for each Capacity Year in the ELCC Reference Period (C.3)

It then uses those ELCCs to determine:

- The Mean Capacity Year ELCC, which is the average of the Capacity Year ELCCs (C.4)
- The Fleet ELCC, which is the lesser of the Whole Period ELCC and the Mean Capacity Year ELCC (C.5)

C.1 This Part C subroutine requires as input a fleet of Candidates for which a capacity quantity is to be determined ("**Part C Candidate Fleet**").

C.2 Determine the "**Whole Period ELCC**" by applying the subroutine in Part D using:

(a) the Part C Candidate Fleet set under clause C.1 as the Part D Candidate Fleet; and

(b) the ELCC Reference Period as the Part D ELCC Period.

C.3 Determine the "**Capacity Year ELCC**" for each Capacity Year in the ELCC Reference Period by applying the subroutine in Part D using:

(a) the Part C Candidate Fleet set under clause C.1 as the Part D Candidate Fleet; and

(b) the Capacity Year as the Part D ELCC Period.

C.4 Determine the "**Mean Capacity Year ELCC**" for the ELCC Reference Period as:

$$\mathrm{MCYELCC} = \frac{\sum_{\mathrm{cy} \in \mathrm{ELCCRP}} \mathrm{CapacityYearELCC(cy)}}{4}$$

where:

(a) CapacityYearELCC(cy) is the Capacity Year ELCC for Capacity Year cy;

(c) cy ∈ ELCCRP denotes all Capacity Years in the ELCC Reference Period.

C.5 Determine the total capacity to be allocated to the Candidate Fleet as the lesser of:

(a) the Whole Period ELCC determined in step C.2; and

(b) the Mean Capacity Year ELCC determined in step C.4.

Part D: Subroutine to calculate Effective Load Carrying Capacity of a Candidate Fleet for a given time period

Explanatory Note

Part D calculates the ELCC for a given fleet of Candidate Facilities and a given period of time.

It determines the difference between:

- The demand that could be met by Non-Candidate Facilities while meeting a specific level of expected unserved energy (given by the Planning Criterion).

- The demand that could be met by Non-Candidate Facilities and the candidate fleet while meeting that same quantity of expected unserved energy.

Expected unserved energy for a particular demand profile is estimated by taking the average across 50 random forced outage scenarios, using the Non-Candidate Forced Outage Rates identified in step B.3.

D.1 This Part D subroutine requires the following inputs:

(a) a fleet of Candidates for which an ELCC is to be determined ("**Part D Candidate Fleet**"); and

(b) a period of time over which the ELCC is to be determined ("**Part D ELCC Period**").

D.2 Determine the "**Reference Unserved Energy Target**" for the Part D ELCC Period as:

$$\mathrm{RUET} = \mathrm{PCUET} \times \sum_{t \in EP} \mathrm{ReferenceDemand(t)}$$

where:

(a) PCUET is the Planning Criterion unserved energy target percentage in clause 4.5.9(b);

(b) ReferenceDemand(t) is the demand in Trading Interval t in the Reference Demand Profile; and

(c) $t \in EP$ denotes all Trading Intervals in the ELCC Period.

D.3 Determine at least 50 "**Non-Candidate Availability Scenarios**", which identify, for each Non-Candidate, in each Trading Interval of the ELCC Period, whether the Non-Candidate is available. The likelihood of a Non-Candidate being unavailable in each Trading Interval of a Non-Candidate Availability Scenario must match the Non-Candidate Forced Outage Rate for that Non-Candidate.

D.4 Determine the "**Initial Demand Adjustment**" as the MW quantity (which may be positive or negative) which gives Mean Initial Unserved Energy equal to the Reference Unserved Energy Target for the ELCC Period.

D.5 Calculate the "**Mean Initial Unserved Energy**" as:

$$\mathrm{MIUE} = \frac{\sum_{s \in \mathrm{NCAS}} \mathrm{SIUE(s)}}{Count(s \in \mathrm{NCAS})}$$

where:

(a) SIUE(s) is the Scenario Initial Unserved Energy for Non-Candidate Availability Scenario s as calculated in step D.6;

(b) $s \in$ NCAS denotes all Non-Candidate Availability Scenarios; and

(c) Count(s ∈ NCAS) denotes the number of Non-Candidate Availability Scenarios.

D.6 Calculate the "**Scenario Initial Unserved Energy**" for each Non-Candidate Availability Scenario as:

$$SIUE(s) = \sum_{t \in ERP} Max\left(0, ReferenceDemand(t) + InitialDemandAdjustment - \sum_{nc \in ANC(s,t)} DCOQ(nc,t)\right)$$

where:

(a) ReferenceDemand(t) is the demand in Trading Interval t in the Reference Demand Profile;

(b) InitialDemandAdjustment is the Initial Demand Adjustment;

(c) DCOQ(nc,t) is the Default Capacity Obligation Quantity of Non-Candidate nc in Trading Interval t;

(d) t ∈ ERP denotes all Trading Intervals in the ELCC Reference Period; and

(e) nc ∈ ANC(s,t) denotes all Non-Candidates which are available in Trading Interval t in Non-Candidate Availability Scenario s.

D.7 Determine the "**Final Demand Adjustment**" as the MW quantity (which may be positive or negative) which gives Final Mean Unserved Energy (as calculated in step D.8) equal to the Reference Unserved Energy Target for the ELCC Period.

D.8 Calculate the "**Mean Final Unserved Energy**" as:

$$MFUE = \frac{\sum_{s \in NCAS} SFUE(s)}{Count(s \in NCAS)}$$

where:

(a) SFUE(s) is the Scenario Final Unserved Energy for Non-Candidate Availability Scenario s as calculated in step D.9;

(b) s ∈ NCAS denotes all Non-Candidate Availability Scenarios; and

(c) Count(s ∈ NCAS) denotes the number of Non-Candidate Availability Scenarios.

D.9 Calculate the "**Scenario Final Unserved Energy**" for each Non-Candidate Availability Scenario as:

$$SFUE(s) = \sum_{t \in ERP} Max\left(0, ReferenceDemand(t) + FinalDemandAdjustment - \sum_{nc \in ANC(s,t)} DCOQ(nc,t) - \sum_{c \in Candidates} HistoricalOutput(c,t)\right)$$

where:

(a) ReferenceDemand(t) is the demand in Trading Interval t in the Reference Demand Profile;

(b) FinalDemandAdjustment is the Final Demand Adjustment;

(c) DCOQ(nc,t) is the Default Capacity Obligation Quantity of Non-Candidate nc in Trading Interval t;

(d) HistoricalOutput(c,t) is the Historical Output of Candidate c in Trading Interval t;

(e) $t \in ERP$ denotes all Trading Intervals in the ELCC Reference Period;

(e) $nc \in ANC(s,t)$ denotes all Non-Candidates which are available in Trading Interval t in Non-Candidate Availability Scenario s; and

(g) $c \in Candidates$ denotes all Candidates.

D.10 Determine the fleet ELCC as:

$$FleetELCC = FinalDemandAdjustment - InitialDemandAdjustment$$

where:

(a) FinalDemandAdjustment is the Final Demand Adjustment; and

(b) InitialDemandAdjustment is the Initial Demand Adjustment.

Explanatory Note

Appendix 10 is deleted, as the Relevant Demand for a Demand Side Programme is now determined based on either a participant nominated value or the IRCR of its Associated Loads.

~~Appendix 10: Relevant Demand Determination~~

~~This Appendix sets out the 5th percentile methodology for determining the Relevant Demand for each Demand Side Programme, for use in clause 4.26.2CA(a).~~

~~The Relevant Demand value is to be re-calculated for each Demand Side Programme for each Trading Day.~~

~~Step 1~~

~~Identify the 200 Calendar Hours in the previous Capacity Year with the highest Total Sent Out Generation. The Calendar Hours do not have to be contiguous.~~

~~Step 2~~

~~For each Demand Side Programme, for each Calendar Hour identified in Step 1, for each of the Demand Side Programme's Associated Loads, identify the quantity (expressed in MWh)[4] equal to —~~

~~(a) unless paragraphs (b) or (c) apply, the Associated Load's metered consumption for the two Trading Intervals in the Calendar Hour; or~~

~~(b) unless paragraph (c) applies, if the Associated Load's metered consumption is not available or is considered by AEMO to be inappropriate, a quantity determined by AEMO based on —~~

~~i. available Meter Data Submissions; or~~

~~ii. Load information provided by the Market Participant; or~~

~~iii. other relevant information; or~~

~~(c) if AEMO has accepted a Consumption Deviation Application for the Associated Load under clause 4.26.2CB(b), AEMO's estimate of what the consumption of the Associated Load would have been if it had not been affected.~~

~~Step 3~~

~~For each Demand Side Programme, for each Calendar Hour identified in Step 1, sum the values determined under Step 2 across all the Demand Side Programme's Associated Loads.~~

~~[4] On this occasion, the MWh number does not get divided by 2, because measurement is across a full hour, ie. 2 Trading Intervals.~~

~~**Step 4**~~

~~For each Demand Side Programme, rank the 200 values determined under Step 3 from lowest to highest.~~

~~The Demand Side Programme's Relevant Demand is the tenth lowest value.~~