Electricity Industry (Wholesale Electricity Market) Regulations 2004

Wholesale Electricity Market Amendment (FCESS Cost Review) Rules 2024

Commencement

- The amending rules set out in Schedule 1 come into operation at 8:00 AM (WST) on the day after the day of publication of the notice in the Gazette.
- The amending rules set out in Schedule 2 come into operation at 8:00 AM (WST) on 20 November 2024.
- The amending rules set out in Schedule 3 come into operation at 8:00 AM (WST) on 1 February 2025.
- The amending rules set out in Schedule 4 come into operation at 8:00 AM (WST) on 1 March 2025.

Where there are market rules made by the Minister for Energy in accordance with regulation 7(5) of the Electricity Industry (Wholesale Electricity Market) Regulations 2004 prior to the date this Instrument is made which are specified to come into operation on the same day as the amending rules set out in this Instrument, the amending rules set out in this Instrument come into operation immediately after the commencement of those market rules.

Schedule 1

1. Section 1.65 amended

1.1 Insert the following new section 1.65:

1.65. Specific Transitional Provisions regarding the timelines for AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period from 1 July 2025 to 30 June 2028.

1.65.1. Notwithstanding clause 2.22A.2A, for the Review Period from 1 July 2025 to 30 June 2028, the following timelines apply:

(a) AEMO must submit a proposal for its Allowable Revenue and Forecast Capital Expenditure for the Review Period to the Economic Regulation Authority by 31 March 2025;

(b) the Economic Regulation Authority must publish on its website a draft determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period for public consultation by 30 April 2025;

(c) the Economic Regulation Authority must prepare and publish on its website its final determination of AEMO's Allowable Revenue and Forecast Capital Expenditure for the Review Period by 30 June 2025; and

(d) if the Economic Regulation Authority does not make a determination by the date in clause 1.65.1(c), the last Market Participant Market Fee rate determined in accordance with section 2.24 will continue to apply until the Economic Regulation Authority makes a determination.

2. Section 2.9 amended

2.1 Delete clause 2.9.6 and replace it with the following:

2.9.6. AEMO, the Economic Regulation Authority, the Coordinator or a Network Operator (as applicable) may initiate the Procedure Change Process under section 2.10 to develop, amend or replace a WEM Procedure as required to comply with proposed Amending Rules published by the Coordinator, but must not complete the Procedure Change Process by publishing a Procedure Change Report until the relevant Amending Rules are made.

3. Section 2.22A amended

3.1 Delete the word 'By' at the beginning of clause 2.22A.7 and replace it with 'Subject to clause 2.22A.7A, by'.

3.2 Insert the following new clause 2.22A.7A:

2.22A.7A. If the Economic Regulation Authority publishes a final determination under clauses 2.22A.2A(c) or 1.65.1(c) at any time after the date that is five Business Days before 30 June, then AEMO must publish the budget specified in clause 2.22A.7 within 10 Business Days after the Economic Regulation Authority publishes a final determination.

4. Section 2.24 amended

4.1 Insert the words ' (unless clause 2.24.2C applies)' after the words 'the Market Participant Market Fee rate' in clause 2.24.2(a).

4.2 Insert the following new clause 2.24.2C:

2.24.2C. If the Economic Regulation Authority publishes a final determination under clauses 2.22A.2A(c) or 1.65.1(c) at any time after the date that is five Business Days before 30 June, then AEMO must determine and publish the level of Market Participant Market Fee rate within 10 Business Days after the Economic Regulation Authority publishes its final determination.

4.3 Delete the word ' revised' in clause 2.24.3.

4.4 Delete clause 2.24.3(a) and replace it with:

(a) Market Participant Market Fees collected, where the amount is equal to the relevant costs in AEMO's budget published in accordance with clauses 2.22A.7 or 2.22A.7A;

5. Section 7.4 amended

5.1 Delete clause 7.4.12 and replace it with the following:

7.4.12. A Market Participant must not specify a Start Decision Cutoff for a quantity of Available Capacity in a Real-Time Market Submission that exceeds the sum of:

(a) 10 minutes; and

(b) the greater of:

i. the sum of:

1. the number of minutes between Gate Closure for the Dispatch Interval and the start of the Dispatch Interval; and

2. 5 minutes; and

ii. the minimum time needed to carry out any requisite physical activities to make the relevant quantity of Available Capacity ready for dispatch in the Dispatch Interval, given the Market Participant's reasonable expectation of the state of the Facility.

6. Section 9.5 amended

6.1 Insert the following new clause 9.5.2A:

9.5.2A. A Metered Schedule for a Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility is Public Information.

Schedule 2

1. Section 2.16A amended

1.1 Delete clause 2.16A.1 and replace it with the following:

2.16A.1. '[Blank]'.

1.2 Delete clause 2.16A.2 and replace it with the following:

2.16A.2. '[Blank]'.

2. Section 2.16B amended

2.1 Delete clause 2.16B.1(a) and replace it with the following:

(a) by 1 October each year, identify each Portfolio operating in the Wholesale Electricity Market by applying the following principles:

i. each Scheduled Facility, Semi-Scheduled Facility and Non-Scheduled Facility must be allocated to a Portfolio;

ii. [Blank]

iii. [Blank]

iv. Registered Facilities which are:

1. registered to the same Market Participant;

2. wholly or partly owned by the same entity (either directly or indirectly); or

3. wholly or partly controlled by the same entity (either directly or indirectly),

must be allocated to the same Portfolio; and

v. a Registered Facility must not be allocated to a Portfolio containing another Registered Facility unless it is required by clause 2.16B.1(a)(iv); and

2.2 Delete the reference to '10' and replace it with '20' before the words 'Business Days' in clause 2.16B.2.

2.3 Delete the words 'of the end' and replace them with 'of the Settlement Date determined under clause 9.3.1(d) for the Trading Week containing the last Trading Day' in clause 2.16B.2.

2.4 Insert the following new clause 2.16B.4:

2.16B.4. A Market Participant must provide a declaration to the Economic Regulation Authority, in accordance with the WEM Procedure referred to in clause 2.16D.15:

(a) by 1 August of each year;

(b) within 30 Business Days of a new Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility being registered to the Market Participant; and

(c) within 30 Business Days of a change in the registration, or the ownership or control (either directly or indirectly), of a Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility currently registered in the Wholesale Electricity Market.

2.5 Insert the following new clause 2.16B.5:

2.16B.5. Within 20 Business Days of receiving a declaration from a Market Participant under clause 2.16B.4(b) or 2.16B.4(c), the Economic Regulation Authority must update the list published under clause 2.16B.1(b).

3. Section 2.16C amended

3.1 Delete the words 'Market Power Test' and replace them with 'Materiality Test' in the heading for section 2.16C.

3.2 Insert the words ' a list specifying the name of each Registered Facility within each identified Portfolio and' after the word 'publish' in clause 2.16C.1(c)(i).

3.3 Delete the words 'following the end' and replace them with 'after the Settlement Date determined under clause 9.3.1(d) for the Trading Week containing the last Trading Day' in clause 2.16C.2.

3.4 Insert the words ' subject to clause 2.16C.3A,' after the words 'clause 2.16C.2(d),' in clause 2.16C.3.

3.5 Delete the reference to '2.16A.1' and replace it with '2.16C.5' in clause 2.16C.3(a).

3.6 Insert the following new clause 2.16C.3A:

2.16C.3A. A Market Participant is not required to maintain records in accordance with clause 2.16C.3 in respect of any Non-Scheduled Facilities assigned to a Material Portfolio or Material Constrained Portfolio.

3.7 Delete the reference to '2.16A.1' and replace it with '2.16C.5' in clause 2.16C.4.

3.8 Delete the words ' which has one or more Registered Facilities assigned to a Material Portfolio' in clause 2.16C.4(a).

3.9 Delete the words ' assigned to a Material Portfolio or a Material Constrained Portfolio' in clause 2.16C.4(b).

3.10 Delete the reference to '2.16A.1' and replace it with '2.16C.5' in clause 2.16C.6.

3.11 Delete the words 'the price that a Market Participant without market power would offer in a profit-maximising Portfolio Supply Curve' and replace them with 'an Economic Price Offer' in clause 2.16C.6(c).

3.12 Delete the words 'the price that a Market Participant without market power would offer in a profit-maximising Real-Time Market' and replace them with 'an Economic Price Offer' in clause 2.16C.6(d).

3.13 Insert the following new clause 2.16C.6A:

2.16C.6A. An Economic Price Offer is a price offered by a Market Participant, in its Portfolio Supply Curve or in a Real-Time Market Submission, which is not greater than the Market Participant's reasonable expectation (based on the information available at the time the offer was made) of the sum of all efficient variable costs for the provision of the relevant Market Service, including all costs incurred under long-term take-or-pay fuel contracts.

3.14 Insert the following new clause 2.16C.8A:

2.16C.8A. If the Economic Regulation Authority requests that a Market Participant provides information under clause 2.13.28, or receives a submission from a Market Participant to explain an alleged breach in accordance with the WEM Procedure specified in clause 2.15.1, the timeframe specified in clause 2.16C.8 for the Economic Regulation Authority to make a determination will be suspended:

(a) where the Economic Regulation Authority has requested information, from the date of the request and will recommence from the date the Market Participant provides the Economic Regulation Authority the information; or

(b) where the Market Participant makes a submission to the Economic Regulation Authority, from the date of receipt of the submission and will recommence two Business Days after that date unless the timeframe is already suspended pursuant to clause 2.16C.8A(a).

3.15 Delete clause 2.16C.11 in its entirety.

4. Section 2.16D amended

4.1 Delete the words 'price offer obligations under clause 2.16A.1' and replace them with 'application of clause 2.16C.6A' in clause 2.16D.1(a)(i).

4.2 Delete the words 'price offer obligations under clause 2.16A.1' and replace them with ‘clause 2.16C.5, including what offers would be considered inconsistent with an Economic Price Offer' in clause 2.16D.1(a)(v).

4.3 Delete the full stop at the end of clause 2.16D.7(b) and replace it with a comma and underneath clause 2.16D.7(b) insert the following:

unless the Economic Regulation Authority is considering an earlier request received under clause 2.16D.5 at the time it receives the request, in which case the 20 Business Day timeframe will commence after the earlier request has been considered by the Economic Regulation Authority and resolved in accordance with this clause 2.16D.7.

4.4 Delete the word 'and' at the end of clause 2.16D.15(b).

4.5 Replace the full stop at the end of clause 2.16D.15 with '; and'.

4.6 Insert the following new clause 2.16D.15(d):

(d) the form and process for making a declaration under clause 2.16B.4.

5. Section 2.16E amended

5.1 Delete clause 2.16E.1 and replace it with the following:

2.16E.1. [Blank]

5.2 Delete clause 2.16E.2 and replace it with the following:

2.16E.2. If the Economic Regulation Authority has investigated a potential breach of clause 2.16C.5 and determined that a price offered by a Market Participant is not inconsistent with an Economic Price Offer, or that an Irregular Price Offer by a Market Participant has not resulted in an inefficient market outcome, the Economic Regulation Authority must notify the Market Participant of the results of the investigation and the reasons for its decision.

6. Section 2.26 amended

6.1 Delete the words 'dispatchable loading level specified in Standing Data' and replace them with 'stable loading level, based on the Economic Regulation Authority's assessment of available information,' in clause 2.26.2(a)(iii).

7. Section 3.11 amended

7.1 Delete the word 'Reference' and replace it with 'Available Capacity' in clause 3.11.2(a).

8. Section 7.4 amended

8.1 Insert the following new clause 7.4.2C:

7.4.2C. Subject to clause 7.4.2D, if:

(a) a Market Participant offers capacity as Available Capacity in a Real-Time Market Submission for energy;

(b) the Reference Scenario for the Dispatch Interval in the last Pre-Dispatch Schedule or Dispatch Schedule provided to the Market Participant before the Start Decision Cutoff for the quantity of the Available Capacity predicts a real-time shortfall in energy, Contingency Reserve Raise or Regulation Raise; and

(c) the shortfall identified under clause 7.4.2C(b) relates to a lack of energy capacity being offered as In-Service Capacity in the Dispatch Interval,

then the Market Participant must, as soon as practicable, update the Real-Time Market Submission for the Dispatch Interval to convert the Available Capacity to In-Service Capacity.

8.2 Insert the following new clause 7.4.2D:

7.4.2D. Clause 7.4.2C does not apply to capacity offered as Available Capacity that:

(a) is not subject to Reserve Capacity Obligations;

(b) would not assist in alleviating the predicted shortfall if it was converted to In-Service Capacity;

(c) is held by a Market Participant in excess of the quantity required to resolve the predicted shortfall; or

(d) has a Start Decision Cutoff that is more than four hours before the start of the Dispatch Interval.

8.3 Delete the word 'Reference' and replace it with 'Available Capacity' in clause 7.4.5(b).

8.4 Delete the word 'Reference' and replace it with 'Available Capacity' in clause 7.4.5(c).

8.5 Delete clause 7.4.6 and replace it with the following:

7.4.6. Subject to clause 7.4.7, a Market Participant must, in respect of each Facility accredited for RoCoF Control Service, offer the largest quantity of RoCoF Control Service in each Dispatch Interval that is capable of being provided by the Facility in each Real-Time Market Submission.

8.6 Delete clause 7.4.7 and replace it with the following:

7.4.7. Clause 7.4.6 does not require a Market Participant to offer a Facility in a Real-Time Market Submission in a manner that is inconsistent with the Frequency Co-optimised Essential System Service Accreditation Parameters of the Facility.

8.7 Insert the words ' subject to clause 7.4.51,' after the words 'and must,' in clause 7.4.50.

8.8 Delete clause 7.4.51 and replace it with the following:

7.4.51. If a Loss Factor Adjusted Price determined in accordance with clause 7.4.50 is outside the relevant Energy Offer Cap, AEMO must:

(a) deem the price in the Real-Time Market Submission to be equal to the product of the relevant Energy Offer Cap and the applicable Loss Factor; and

(b) use the relevant Energy Offer Cap for the Real-Time Market Submission as the Loss Factor Adjusted Price in the Dispatch Algorithm.

8.9 Delete the word 'Where' and replace it with 'If' at the beginning of clause 7.4.51A.

9. Section 7.5 amended

9.1 Insert a new subheading 'Tiebreaking Constraints' after clause 7.5.14.

9.2 Insert the following new clause 7.5.15 after the subheading 'Tiebreaking Constraints':

7.5.15. AEMO must configure the Dispatch Algorithm to avoid Degenerate Solutions caused by tied Price-Quantity Pairs for a Market Service in Real-Time Market Submissions. The Dispatch Algorithm must, subject to other constraints, dispatch quantities from tied Price-Quantity Pairs:

(a) for Real-Time Market Submissions for a Frequency Co-optimised Essential System Service, in the following order:

i. quantities from Interruptible Loads, in ascending order of Facility Tiebreak Number; then

ii. quantities from Scheduled Facilities and Semi-Scheduled Facilities with an Enablement Minimum (as specified in the Real-Time Market Submission for the Frequency Co-optimised Essential System Service and adjusted by AEMO, if applicable, under clause 7.4.52) less than or equal to zero, in ascending order of Facility Tiebreak Number; then

iii. quantities from Scheduled Facilities and Semi-Scheduled Facilities with an Enablement Minimum (as specified in the Real-Time Market Submission for the Frequency Co-optimised Essential System Service and adjusted by AEMO, if applicable, under clause 7.4.52) greater than zero, in ascending order of:

1. the estimated energy dispatch cost for the Enablement Minimum, as calculated in accordance with clause 7.5.16; then

2. Facility Tiebreak Number;

(b) for Real-Time Market Offers for energy, in ascending order of Facility Tiebreak Number; and

(c) for Real-Time Market Bids for energy, in descending order of Facility Tiebreak Number.

9.3 Insert the following new clause 7.5.16:

7.5.16. For the purposes of clause 7.5.15(a)(iii)(1), the estimated energy dispatch cost for Registered Facility f in Dispatch Interval DI for Frequency Co-optimised Essential System Service m is:

$$\text{EstDispatchCost}(m,f,DI) = \sum_{pq \in \text{EnergyOffer}(f,DI)} (\text{EnergyQty}(f,DI,pq) \times \text{LFAOP}(f,DI,pq))$$

where:

(a) pq∈EnergyOffer(f,DI) denotes all Price-Quantity Pairs pq in the Real-Time Market Offer for energy for Registered Facility f in Dispatch Interval DI that are not excluded in the relevant Scenario;

(b) EnergyQty(f,DI,pq) is the part of the quantity from Price-Quantity Pair pq that is included in the Enablement Minimum for Registered Facility f in Dispatch Interval DI for Frequency Co-optimised Essential System Service m (as specified in the relevant Real-Time Market Submission and adjusted by AEMO, if applicable, under clause 7.4.52); and

(c) LFAOP(f,DI,pq) is the Loss Factor Adjusted Price for Price-Quantity Pair pq.

9.4 Insert the following new clause 7.5.17:

7.5.17. For each Trading Day, AEMO must:

(a) for each Scheduled Facility, Semi-Scheduled Facility and Interruptible Load determine a unique random number (Facility Tiebreak Number); and

(b) use the Facility Tiebreak Numbers determined under clause 7.5.17(a) for the Trading Day in the Dispatch Algorithm as specified in clause 7.5.15 for all Dispatch Intervals and Pre-Dispatch Intervals (as applicable) in the Trading Day.

9.5 Insert the following new clause 7.5.18:

7.5.18. AEMO must document in a WEM Procedure the method to be used by AEMO to determine Facility Tiebreak Numbers under clause 7.5.17(a).

10. Section 7.6 amended

10.1 Delete the subheading 'Tiebreaking' above clause 7.6.23 and replace it with the subheading 'Oscillation Control Constraint Equations'.

10.2 Delete clause 7.6.23 and replace it with the following:

7.6.23. [Blank]

10.3 Delete clause 7.6.27 and replace it with the following:

7.6.27. AEMO must document in a WEM Procedure situations that are deemed to be significant for the purposes of clause 7.6.24(b).

11. Section 7.7 amended

11.1 Delete the word 'Reference' and replace it with 'Available Capacity' in clause 7.7.4.

11.2 Delete the word 'Reference' and replace it with 'Available Capacity' in clause 7.7.5.

11.3 Insert the following new clause 7.7.8A:

7.7.8A. If AEMO includes a Constraint Equation in the Dispatch Algorithm under clause 7.7.8 to facilitate a direction to:

(a) synchronise a Registered Facility to provide a RoCoF Control Service; or

(b) ensure, during a period subject to a Low Reserve Condition Declaration, a minimum level of Injection from a Registered Facility,

then for the purposes of clauses 7.14.1 and 9.9.9, the Constraint Equation is deemed to reflect a Network Constraint.

12. Section 7.8 amended

12.1 Delete clause 7.8.4 and replace it with the following:

7.8.4. AEMO must include a Reference Scenario and Available Capacity Scenario in each Market Schedule.

12.2 Delete the words ' where the Start Decision Cutoff for the Registered Facility has passed' from clause 7.8.5(c).

12.3 Delete the words ' where the Start Decision Cutoff for the Registered Facility has passed' from clause 7.8.5A(b).

12.4 Insert the following new clause 7.8.5B:

7.8.5B. AEMO must use the same inputs and assumptions for the Available Capacity Scenario for a Week-Ahead Schedule, Pre-Dispatch Schedule or Dispatch Schedule as for the corresponding Reference Scenario, except that it must include any capacity offered as Available Capacity in Real-Time Market Submissions for which the relevant Start Decision Cutoff has not yet passed.

12.5 Delete clause 7.8.6 and replace it with the following:

7.8.6. In determining Week-Ahead Schedules, AEMO must include Scenarios that:

(a) [Blank]

(b) use the same inputs and assumptions as for the Available Capacity Scenario, other than the inclusion of a higher load forecast; and

(c) use the same inputs and assumptions as for the Available Capacity Scenario, other than the inclusion of a lower load forecast.

12.6 Insert the following new clause 7.8.6A:

7.8.6A. In determining Pre-Dispatch Schedules, AEMO must include Scenarios that:

(a) use the same inputs and assumptions as for the Reference Scenario, other than the inclusion of a higher load forecast; and

(b) use the same inputs and assumptions as for the Reference Scenario, other than the inclusion of a lower load forecast.

13. Section 7.13 amended

13.1 Insert the words ' (as adjusted by AEMO under clauses 7.4.51 or 7.4.51A, if applicable)' after the words 'Price-Quantity Pairs' in clause 7.13.1EA(a)(ii).

14. Section 7.13A amended

14.1 Delete the words 'In Service' and replace them with 'In-Service Capacity' in clause 7.13A.1(b).

14.2 Delete the word 'Reference' and replace it with 'Available Capacity' in clause 7.13A.2(a).

14.3 Delete the word 'Reference' and replace it with 'Available Capacity' in clause 7.13A.2(b).

14.4 Delete the word 'Reference' and replace it with 'Available Capacity' in clause 7.13A.2(c).

15. Section 7.14 amended

15.1 Insert the words ' (including Constraints deemed to be Network Constraints under clause 7.7.8A)' after 'Dispatch Algorithm' in clause 7.14.1.

16. Section 7.17 amended

16.1 Insert the following new section 7.17:

Estimated FCESS Uplift Payments

7.17. Calculation of Estimated FCESS Uplift Payments

7.17.1. The Estimated FCESS Uplift Payment for a Scheduled Facility or Semi-Scheduled Facility f in Dispatch Interval DI is:

$$\text{EstFCESSUpliftPayment}(f,DI) = \begin{cases} 0, \text{ if } \sum_{m \in FCESS} \text{EnablementQty}(m,f,DI) = 0 \\ 0, \text{ if DispatchTarget}(f,DI) \leq 0 \\ \text{Max}(0, \text{RTMDispatchCost}(f,DI) - \text{RTMBaseCompensation}(f,DI)), \\ \text{otherwise} \end{cases}$$

where:

(a) $m \in FCESS$ denotes each of the Contingency Reserve Raise, Contingency Reserve Lower, Regulation Raise and Regulation Lower Frequency Co-optimised Essential System Services;

(b) EnablementQty(m,f,DI) is the Essential System Service Enablement Quantity for Registered Facility f in Dispatch Interval DI, as calculated for the relevant Market Schedule and Scenario;

(c) DispatchTarget(f,DI) is the Dispatch Target for Registered Facility f in Dispatch Interval DI, as calculated for the relevant Market Schedule and Scenario;

(d) RTMDispatchCost(f,DI) is the estimated Real-Time Market dispatch cost based on Real-Time Market Offers for Registered Facility f in Dispatch Interval DI, calculated in accordance with clause 7.17.2; and

(e) RTMBaseCompensation(f,DI) is the Real-Time Market base compensation amount for Registered Facility f in Dispatch Interval DI, calculated in accordance with clause 7.17.3.

7.17.2. For the purposes of clause 7.17.1, the estimated Real-Time Market dispatch cost based on Real-Time Market Offers for Registered Facility f in Dispatch Interval DI is:

$$\begin{aligned}\text{RTMDispatchCost(f,DI)} &= \left(\sum_{\text{epq} \in \text{EnergyOffer(f,DI)}} (\text{ClearedEnergyQty(f,DI,epq)} \times \text{EnergyPrice(f,DI,epq)}) \right. \\ &+ \left. \sum_{\text{m} \in \text{FCESS}} \sum_{\text{fpq} \in \text{FCESSOffer(m,f,DI)}} (\text{ClearedQty(m,f,DI,fpq)} \times \text{FCESSPrice(m,f,DI,fpq)}) \right) \times \frac{5}{60}\end{aligned}$$

where:

(a) epq∈EnergyOffer(f,DI) denotes all Price-Quantity Pairs in the Real-Time Market Offer for energy for Registered Facility f in Dispatch Interval DI that are not excluded in the relevant Scenario;

(b) ClearedEnergyQty(f,DI,epq) is the part of the quantity from Price-Quantity Pair epq that is included in the estimated FCESS Minimum Dispatch Target (as calculated in accordance with clause 7.17.4 for the relevant Market Schedule and Scenario) for Registered Facility f in Dispatch Interval DI;

(c) EnergyPrice(f,DI,epq) is the price specified in Price-Quantity Pair epq for Registered Facility f in Dispatch Interval DI;

(d) m∈FCESS denotes each of the Contingency Reserve Raise, Contingency Reserve Lower, Regulation Raise and Regulation Lower Frequency Co-optimised Essential System Services;

(e) fpq∈FCESSOffer(m,f,DI) denotes all Price-Quantity Pairs fpq in the Real-Time Market Offer for Registered Facility f in Dispatch Interval DI for Frequency Co-

optimised Essential System Service m (if one exists) that are not excluded in the relevant Scenario;

(f) ClearedQty(m,f,DI,fpg) is the part of the quantity from Price-Quantity Pair fpq that is included in the relevant Essential System Service Enablement Quantity determined for Registered Facility f in Dispatch Interval DI for the relevant Market Schedule and Scenario;

(g) FCESSPrice(m,f,DI,fpq) is the price specified in Price-Quantity Pair fpq for Registered Facility f in Dispatch Interval DI for Frequency Co-optimised Essential System Service m (as adjusted by AEMO under clause 7.4.51A, if applicable); and

(h) 5/60 represents the period of a Dispatch Interval in hours.

7.17.3. For the purposes of clause 7.17.1, the estimated Real-Time Market base compensation amount for Registered Facility f in Dispatch Interval DI is:

$$\begin{aligned}\text{RTMBaseCompensation}(f,DI) \\ = \Bigg(&\text{FCESSMinDispatchTarget}(f,DI) \times \text{EMCP}(DI) \times \text{LF}(f,DI) \\ &+ \sum_{m \in \text{FCESS}} (\text{EnablementQty}(m,f,DI) \times \text{MCP}(m,DI) \times \text{PF}(m,f,DI))\Bigg) \times \frac{5}{60}\end{aligned}$$

where:

(a) FCESSMinDispatchTarget(f,DI) is the estimated FCESS Minimum Dispatch Target (as calculated in accordance with clause 7.17.4) for Registered Facility f in Dispatch Interval DI for the relevant Market Schedule and Scenario;

(b) EMCP(DI) is the Market Clearing Price for energy for Dispatch Interval DI as calculated for the relevant Market Schedule and Scenario;

(c) LF(f,DI) is the Loss Factor applicable to the Measurement Point associated with Registered Facility f in Dispatch Interval DI;

(d) m∈FCESS denotes each of the Contingency Reserve Raise, Contingency Reserve Lower, Regulation Raise and Regulation Lower Frequency Co-optimised Essential System Services;

(e) EnablementQty(m,f,DI) is the Essential System Service Enablement Quantity for Registered Facility f in Dispatch Interval DI as calculated for the relevant Market Schedule and Scenario;

(f) MCP(m,DI) is the Market Clearing Price for Frequency Co-optimised Essential System Service m in Dispatch Interval DI as calculated for the relevant Market Schedule and Scenario;

(g) PF(m,f,DI) is the Facility Performance Factor for Registered Facility f in Dispatch Interval DI for Frequency Co-optimised Essential System Service m as determined for the relevant Market Schedule and Scenario; and

(h) 5/60 represents the period of a Dispatch Interval in hours.

7.17.4. For the purposes of clauses 7.17.2 and 7.17.3, the estimated FCESS Minimum Dispatch Target for Registered Facility f in Dispatch Interval DI is:

$$FCESSMinDispatchTarget(f,DI) = \max(0, Raise\_MinDT(f,DI), Lower\_MinDT(f,DI))$$

where:

(a) Raise_MinDT(f,DI) is the minimum theoretical Dispatch Target from which Registered Facility f could have provided its Essential System Service Enablement Quantities for Contingency Reserve Raise and Regulation Raise in Dispatch Interval DI, as calculated in accordance with clause 7.17.5; and

(b) Lower_MinDT(f,DI) is the minimum theoretical Dispatch Target from which Registered Facility f could have provided its Essential System Service Enablement Quantities for Contingency Reserve Lower and Regulation Lower in Dispatch Interval DI, as calculated in accordance with clause 7.17.6.

7.17.5. For the purposes of clause 7.17.4, the estimated minimum theoretical Dispatch Target from which Registered Facility f could have provided its Essential System Service Enablement Quantities for Contingency Reserve Raise and Regulation Raise in Dispatch Interval DI is:

$$Raise\_MinDT(f,DI) = \begin{cases} \max(EM\_CR(f,DI), EM\_RR(f,DI)), \\ \quad \text{if } CR\_EnablementQuantity(f,DI) > 0 \text{ and } RR\_EnablementQuantity(f,DI) > 0 \\ EM\_CR(f,DI), \text{ if } CR\_EnablementQuantity(f,DI) > 0 \text{ and } RR\_EnablementQuantity \leq 0 \\ EM\_RR(f,DI), \text{ if } RR\_EnablementQuantity(f,DI) > 0 \text{ and } CR\_EnablementQuantity \leq 0 \\ 0, \text{ otherwise} \end{cases}$$

where:

(a) EM_CR(f,DI) is the Enablement Minimum for Contingency Reserve Raise for Registered Facility f in Dispatch Interval DI as specified in the relevant Real-Time Market Submission in accordance with clause 7.4.41(d) and adjusted by AEMO, if applicable, under clause 7.4.52;

(b) EM_RR(f,DI) is the Enablement Minimum for Regulation Raise for Registered Facility f in Dispatch Interval DI as specified in the relevant Real-Time Market Submission in accordance with clause 7.4.41(d) and adjusted by AEMO, if applicable, under clause 7.4.52;

(c) CR_EnablementQuantity(f,DI) is the Essential System Service Enablement Quantity for Contingency Reserve Raise for Registered Facility f in Dispatch Interval DI as calculated for the relevant Market Schedule and Scenario; and

(d) RR_EnablementQuantity(f,DI) is the Essential System Service Enablement Quantity for Regulation Raise for Registered Facility f in Dispatch Interval DI as calculated for the relevant Market Schedule and Scenario.

7.17.6. For the purposes of clause 7.17.4, the estimated minimum theoretical Dispatch Target from which Registered Facility f could have provided its Essential System Service Enablement Quantities for Contingency Reserve Lower and Regulation Lower in Dispatch Interval DI is:

$$\text{Lower\_MinDT}(f,DI) = \begin{cases} \text{CL\_EnablementQuantity}(f,DI) + \text{RL\_EnablementQuantity}(f,DI) + \max(\text{EM\_CL}(f,DI), \text{EM\_RL}(f,DI)), \\ \text{if CL\_EnablementQuantity}(f,DI) > 0 \text{ and RL\_EnablementQuantity}(f,DI) > 0 \\ \text{EM\_CL}(f,DI) + \text{CL\_EnablementQuantity}(f,DI), \\ \text{if CL\_EnablementQuantity}(f,DI) > 0 \text{ and RL\_EnablementQuantity}(f,DI) \leq 0 \\ \text{EM\_RL}(f,DI) + \text{RL\_EnablementQuantity}(f,DI), \\ \text{if RL\_EnablementQuantity}(f,DI) > 0 \text{ and CL\_EnablementQuantity}(f,DI) \leq 0 \\ 0, \text{ otherwise} \end{cases}$$

where:

(a) CL_EnablementQuantity(f,DI) Essential System Service Enablement Quantity for Contingency Reserve Lower for Registered Facility f in Dispatch Interval DI as calculated for the relevant Market Schedule and Scenario;

(b) RL_EnablementQuantity(f,DI) is the Essential System Service Enablement Quantity for Regulation Lower for Registered Facility f in Dispatch Interval DI as calculated for the relevant Market Schedule and Scenario;

(c) EM_CL(f,DI) is the Enablement Minimum for Contingency Reserve Lower for Registered Facility f in Dispatch Interval DI as specified in the relevant Real-Time Market Submission in accordance with clause 7.4.41(d) and adjusted by AEMO, if applicable, under clause 7.4.52; and

(d) EM_RL(f,DI) is the Enablement Minimum for Regulation Lower for Registered Facility f in Dispatch Interval DI as specified in the relevant Real-Time Market Submission in accordance with clause 7.4.41(d) and adjusted by AEMO, if applicable, under clause 7.4.52.

17. Section 9.9 amended

17.1 Delete the words ' which will equal 1 when AEMO has suspended the Real-Time Market under clause 7.11D.1 in the Dispatch Interval or' from clause 9.9.8(a).

17.2 Delete clause 9.9.9 and replace it with:

9.9.9. The mispricing trigger for Registered Facility f in Dispatch Interval DI is:

$$\text{IsMisPriced}(f,DI) = \begin{cases} 1, \text{ if } \text{RTMSuspFlag}(DI) = 1 \\ 1, \text{ if } \text{ClearedQuantity}(f,DI) > 0 \text{ and} \\ \text{and } \text{CongestionRental}(f,DI) > 0 \\ \text{MarginalOfferPrice}(f,DI) > \text{Energy\_MCP}(DI) \\ \text{and } f \notin \text{FacilitiesInBindingDownRampRate}(DI) \\ \text{and } f \notin \text{FacilitiesInBindingESSEnablementMinimum}(DI) \\ \text{and } \forall\, c\ (f \notin \text{FacilitiesInBindingNCESS}(c,DI)) \\ 0, \text{ otherwise} \end{cases}$$

where:

(a) RTMSuspFlag(DI) is the RTM Suspension Flag for Dispatch Interval DI;

(aA) ClearedQuantity(f,DI) is the cleared energy quantity for Registered Facility f in Dispatch Interval DI as recorded in the relevant Dispatch Instruction (where this quantity can be a Dispatch Target, Dispatch Cap or Dispatch Forecast);

(b) CongestionRental(f,DI) is the Congestion Rental for Registered Facility f in Dispatch Interval DI in respect of a set of Network Constraints N as published under clause 7.13.1EA(b);

(c) MarginalOfferPrice(f,DI) is the highest Loss Factor Adjusted Price associated with any cleared (or scheduled) Price-Quantity Pair for In-Service Capacity in respect of a Market Participant's Real-Time Market Offer for energy that was dispatched for Registered Facility f in Dispatch Interval DI;

(d) Energy_MCP(DI) is the Final Energy Market Clearing Price for Dispatch Interval DI;

(e) FacilitiesInBindingDownRampRate(DI) is the set of Registered Facilities whose EOI Quantity is higher than it would otherwise be in Dispatch Interval DI as a result of a binding ramp rate constraint applied under clause 7.2.4(c); and

(f) FacilitiesInBindingESSEnablementMinimum(DI) is the set of Registered Facilities whose EOI Quantity is constrained to its Enablement Minimum value in Dispatch Interval DI, as a result of a binding Essential System Service Enablement Minimum Constraint applied under clause 7.8.5(b)(i) for a Frequency Co-optimised Essential System Service other than RoCoF Control Service; and

(g) FacilitiesInBindingNCESS(c,DI) is the set of Registered Facilities provided under clause 5.9.1(b) for NCESS Contract c and Dispatch Interval DI.

17.3 Delete clause 9.9.10 and replace it with the following:

9.9.10. The Energy Uplift Price for Registered Facility f in Dispatch Interval DI is:

EnergyUpliftPrice(f,DI)

$$= \begin{cases} 0, \text{ if InServiceTrancheCount=0} \\ \text{Max}\left(0,\left(\text{MarginalOfferPrice(f,DI)} - \text{ReferenceTradingPrice(t)}\right)\right), \text{ otherwise} \end{cases}$$

where:

(a) InServiceTrancheCount is the number of Price-Quantity Pairs for non-zero quantities of In-Service Capacity in the Real-Time Market Offer for energy for Registered Facility f in Dispatch Interval DI;

(b) MarginalOfferPrice(f,DI) is:

i. the highest Loss Factor Adjusted Price associated with any cleared (or scheduled) Price-Quantity Pair for In-Service Capacity in respect of a Market Participant's Real-Time Market Offer for energy that was dispatched for Registered Facility f in Dispatch Interval DI; or

ii. if AEMO has suspended the Real-Time Market under clause 7.11D.1, the highest price Price-Quantity Pair in respect of a Market Participant's Real-Time Market Submission for energy associated with the MW Injection or Withdrawal of Registered Facility f for Dispatch Interval DI as monitored by AEMO's SCADA system as prepared under clause 7.13.1E(a)(vi); and

(c) ReferenceTradingPrice(t) is the Final Reference Trading Price for Trading Interval t containing Dispatch Interval DI.

18. Section 9.10 amended

18.1 Delete the reference to '9.10.3H' and replace it with '9.10.3C' in clause 9.10.3B(a).

18.2 Delete clause 9.10.3C and replace it with the following:

9.10.3C. The FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI is:

FCESSUpliftPayment(f,DI)

$$= \begin{cases} \text{Max}(0,\text{RTMDispatchCost(f,DI)} - \text{RTMBaseCompensation(f,DI)}), \\ \text{if FCESSUpliftEligibleFlag(f,DI)} = 1 \\ 0, \text{ otherwise} \end{cases}$$

where:

(a) RTMDispatchCost(f,DI) is the estimated Real-Time Market dispatch cost based on Real-Time Market Offers for Registered Facility f in Dispatch Interval DI, calculated in accordance with clause 9.10.3D;

(b) RTMBaseCompensation(f,DI) is the Real-Time Market base compensation amount for Registered Facility f in Dispatch Interval DI, calculated in accordance with clause 9.10.3E; and

(c) FCESSUpliftEligibleFlag(f,DI) is the FCESS Uplift Payment eligibility flag for Registered Facility f in Dispatch Interval DI, calculated in accordance with clause 9.10.3F.

18.3 Delete clause 9.10.3D and replace it with the following:

9.10.3D. The estimated Real-Time Market dispatch cost based on Real-Time Market Offers for Registered Facility f in Dispatch Interval DI is:

$$\begin{aligned}\text{RTMDispatchCost}(f,DI) = &\left(\sum_{epq \in \text{EnergyOffer}(f,DI)} (\text{ClearedEnergyQty}(f,DI,epq) \times \text{EnergyPrice}(f,DI,epq)) \right. \\ &+ \sum_{m \in \text{FCESS}} \sum_{fpq \in \text{FCESSOffer}(m,f,DI)} (\text{ClearedQty}(m,f,DI,fpq) \\ &\left. \times \text{FCESSPrice}(m,f,DI,fpq)) \right) \times \frac{5}{60}\end{aligned}$$

where:

(a) epq∈EnergyOffer(f,DI) denotes all Price-Quantity Pairs for In-Service Capacity epq in the Real-Time Market Offer for energy for Registered Facility f in Dispatch Interval DI;

(b) ClearedEnergyQty(f,DI,epq) is the part of the quantity from Price-Quantity Pair epq that is included in the FCESS Minimum Dispatch Target for Registered Facility f in Dispatch Interval DI;

(c) EnergyPrice(f,DI,epq) is the price specified in Price-Quantity Pair epq for Registered Facility f in Dispatch Interval DI;

(d) m∈FCESS denotes each of the Contingency Reserve Raise, Contingency Reserve Lower, Regulation Raise and Regulation Lower Frequency Co-optimised Essential System Services;

(e) fpq∈FCESSOffer(m,f,DI) denotes all Price-Quantity Pairs for In-Service Capacity fpq in the Real-Time Market Offer for Registered Facility f in Dispatch Interval DI for Frequency Co-optimised Essential System Service m (if one exists);

(f) ClearedQty(m,f,DI,fpg) is the part of the quantity from Price-Quantity Pair fpq that is included in the relevant Essential System Service Enablement Quantity determined for Registered Facility f in Dispatch Interval DI in accordance with clauses 9.10.6(c), 9.10.10(c), 9.10.22(c) or 9.10.23(c) as applicable;

(g) FCESSPrice(m,f,DI,fpq) is the price specified in Price-Quantity Pair fpq for Registered Facility f in Dispatch Interval DI for Frequency Co-optimised Essential System Service m; and

(h) 5/60 represents the period of a Dispatch Interval in hours.

18.4 Delete clause 9.10.3E and replace it with the following:

9.10.3E. The Real-Time Market base compensation amount for Registered Facility f in Dispatch Interval DI is:

$$\text{RTMBaseCompensation}(f,DI) = \left(\text{FCESSMinDispatchTarget}(f,DI) \times \text{ReferenceTradingPrice}(t) \times \text{LF}(f,DI) + \sum_{m \in FCESS} (\text{EnablementQty}(m,f,DI) \times \text{MCP}(m,DI) \times \text{PF}(m,f,DI))\right) \times \frac{5}{60}$$

where:

(a) FCESSMinDispatchTarget(f,DI) is the FCESS Minimum Dispatch Target for Registered Facility f in Dispatch Interval DI calculated accordance with clause 9.10.3G;

(b) ReferenceTradingPrice(t) is the Final Reference Trading Price for the Trading Interval t that contains Dispatch Interval DI;

(c) LF(f,DI) is the Loss Factor applicable to the Measurement Point associated with Registered Facility f in Dispatch Interval DI;

(d) m∈FCESS denotes each of the Contingency Reserve Raise, Contingency Reserve Lower, Regulation Raise and Regulation Lower Frequency Co-optimised Essential System Services;

(e) EnablementQty(m,f,DI) is the Essential System Service Enablement Quantity for Registered Facility f in Dispatch Interval DI for Frequency Co-optimised Essential System Service m (as adjusted in accordance with clauses 9.10.6(c), 9.10.10(c), 9.10.22(c) or 9.10.23(c) as applicable);

(f) MCP(m,DI) is the final Market Clearing Price for Frequency Co-optimised Essential System Service m in Dispatch Interval DI;

(g) PF(m,f,DI) is the Facility Performance Factor for Registered Facility f in Dispatch Interval DI for Frequency Co-optimised Essential System Service m as determined by AEMO under clause 7.11D.2(b)(iv) or published under clauses 7.13.1B(k) or 7.13.1BA(j); and

(h) 5/60 represents the period of a Dispatch Interval in hours.

18.5 Delete clause 9.10.3F and replace it with the following:

9.10.3F. The FCESS Uplift Payment eligibility flag for Registered Facility f in Dispatch Interval DI is:

$$\text{FCESSUpliftEligibleFlag}(f,DI) = \begin{cases} 1, \text{ if RTMSuspFlag}(DI)=0 \\ \text{and } f \in \text{EligibleFacilities}(DI) \\ \text{and IsMisPriced}(f,DI)=0 \\ \text{and DispatchTarget}(f,DI)>0 \\ \text{and } \sum_{m \in FCESS} \text{EnablementQty}(m,f,DI) > 0 \\ 0, \text{ otherwise} \end{cases}$$

where:

(a) RTMSuspFlag(DI) is the RTM Suspension Flag for Dispatch Interval DI;

(b) EligibleFacilities(DI) is the set of Scheduled Facilities and Semi-Scheduled Facilities in Dispatch Interval DI;

(c) IsMisPriced(f,DI) is the mispricing trigger for Registered Facility f in Dispatch Interval DI as calculated in accordance with clause 9.9.9;

(d) DispatchTarget(f,DI) is the Dispatch Target for Registered Facility f in Dispatch Interval DI;

(e) m∈FCESS denotes each of the Contingency Reserve Raise, Contingency Reserve Lower, Regulation Raise and Regulation Lower Frequency Co-optimised Essential System Services; and

(f) EnablementQty(m,f,DI) is the Essential System Service Enablement Quantity for Registered Facility f in Dispatch Interval DI for Frequency Co-optimised Essential System Service m, determined in accordance with clauses 9.10.6(c), 9.10.10(c), 9.10.22(c) or 9.10.23(c) as applicable.

18.6 Delete clause 9.10.3G and replace it with the following:

9.10.3G. The FCESS Minimum Dispatch Target for Registered Facility f in Dispatch Interval DI is:

$$\text{FCESSMinDispatchTarget}(f,DI) = \begin{cases} \max(0, \text{Raise\_MinDT}(f,DI), \text{Lower\_MinDT}(f,DI)), \\ \text{if FCESSUpliftEligibleFlag}(f,DI)=1 \\ 0, \text{ otherwise} \end{cases}$$

where:

(a) Raise_MinDT(f,DI) is the minimum theoretical Dispatch Target from which Registered Facility f could have provided its Essential System Service Enablement Quantities for Contingency Reserve Raise and Regulation

Raise in Dispatch Interval DI, as calculated in accordance with clause 9.10.3H;

(b) Lower_MinDT(f,DI) is the minimum theoretical Dispatch Target from which Registered Facility f could have provided its Essential System Service Enablement Quantities for Contingency Reserve Lower and Regulation Lower in Dispatch Interval DI, as calculated in accordance with clause 9.10.3HA; and

(c) FCESSUpliftEligibleFlag(f,DI) is the FCESS Uplift Payment eligibility flag for Registered Facility f in Dispatch Interval DI, as calculated in accordance with clause 9.10.3F.

18.7 Delete clause 9.10.3H and replace it with the following:

9.10.3H. The minimum theoretical Dispatch Target from which Registered Facility f could have provided its Essential System Service Enablement Quantities for Contingency Reserve Raise and Regulation Raise in Dispatch Interval DI is:

$$\text{Raise\_MinDT}(f,DI) = \begin{cases} \max(\text{EM\_CR}(f,DI), \text{EM\_RR}(f,DI)), \\ \quad \text{if CR\_EnablementQuantity}(f,DI) > 0 \text{ and RR\_EnablementQuantity}(f,DI) > 0 \\ \text{EM\_CR}(f,DI), \text{ if CR\_EnablementQuantity}(f,DI) > 0 \text{ and RR\_EnablementQuantity} \leq 0 \\ \text{EM\_RR}(f,DI), \text{ if RR\_EnablementQuantity}(f,DI) > 0 \text{ and CR\_EnablementQuantity} \leq 0 \\ 0, \text{ otherwise} \end{cases}$$

where:

(a) EM_CR(f,DI) is the Enablement Minimum for Contingency Reserve Raise for Registered Facility f in Dispatch Interval DI as specified in the relevant Real-Time Market Submission in accordance with clause 7.4.41(d) and adjusted by AEMO, if applicable, under clause 7.4.52;

(b) EM_RR(f,DI) is the Enablement Minimum for Regulation Raise for Registered Facility f in Dispatch Interval DI as specified in the relevant Real-Time Market Submission in accordance with clause 7.4.41(d) and adjusted by AEMO, if applicable, under clause 7.4.52;

(c) CR_EnablementQuantity(f,DI) is the quantity determined in accordance with clause 9.10.6(c) for Registered Facility f in Dispatch Interval DI; and

(d) RR_EnablementQuantity(f,DI) is the quantity determined in accordance with clause 9.10.22(c) for Registered Facility f in Dispatch Interval DI.

18.8 Insert the following new clause 9.10.3HA:

9.10.3HA. The minimum theoretical Dispatch Target from which Registered Facility f could have provided its Essential System Service Enablement Quantities for Contingency Reserve Lower and Regulation Lower in Dispatch Interval DI is:

Lower_MinDT(f,DI)

$$= \begin{cases} \text{CL\_EnablementQuantity}(f,DI) + \text{RL\_EnablementQuantity}(f,DI) + \max(\text{EM\_CL}(f,DI), \text{EM\_RL}(f,DI)), \\ \text{if CL\_EnablementQuantity}(f,DI) > 0 \text{ and RL\_EnablementQuantity}(f,DI) > 0 \\ \text{EM\_CL}(f,DI) + \text{CL\_EnablementQuantity}(f,DI), \\ \text{if CL\_EnablementQuantity}(f,DI) > 0 \text{ and RL\_EnablementQuantity}(f,DI) \leq 0 \\ \text{EM\_RL}(f,DI) + \text{RL\_EnablementQuantity}(f,DI), \\ \text{if RL\_EnablementQuantity}(f,DI) > 0 \text{ and CL\_EnablementQuantity}(f,DI) \leq 0 \\ 0, \text{otherwise} \end{cases}$$

where:

(a) CL_EnablementQuantity(f,DI) is the quantity determined in accordance with clause 9.10.10(c) for Registered Facility f in Dispatch Interval DI;

(b) RL_EnablementQuantity(f,DI) is the quantity determined in accordance with clause 9.10.23(c) for Registered Facility f in Dispatch Interval DI;

(c) EM_CL(f,DI) is the Enablement Minimum for Contingency Reserve Lower for Registered Facility f in Dispatch Interval DI as specified in the relevant Real-Time Market Submission in accordance with clause 7.4.41(d) and adjusted by AEMO, if applicable, under clause 7.4.52; and

(d) EM_RL(f,DI) is the Enablement Minimum for Regulation Lower for Registered Facility f in Dispatch Interval DI as specified in the relevant Real-Time Market Submission in accordance with clause 7.4.41(d) and adjusted by AEMO, if applicable, under clause 7.4.52.

18.9 Delete clauses 9.10.3I and replace it with the following:

9.10.3I. The number of Frequency Co-optimised Essential System Services to be allocated a share of the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI is:

FCESSCount(f,DI)

$$= \begin{cases} \text{CREnabledFlag}(f,DI) + \text{CLEnabledFlag}(f,DI) + \text{RREnabledFlag}(f,DI) + \text{RLEnabledFlag}(f,DI), \\ \text{if FCESSUpliftEligibleFlag}(f,DI) = 1 \\ 0, \text{otherwise} \end{cases}$$

where:

(a) CREnabledFlag(f,DI) is:

i. 1 if CR_EnablementQuantity(f,DI), determined in accordance with clause 9.10.6(c) for Registered Facility f in Dispatch Interval DI, is greater than zero; and

ii. zero otherwise;

(b) CLEnabledFlag(f,DI) is:

i. 1 if CL_EnablementQuantity(f,DI), determined in accordance with clause 9.10.10(c) for Registered Facility f in Dispatch Interval DI, is greater than zero; and

ii. zero otherwise;

(c) RREnabledFlag(f,DI) is:

i. 1 if RR_EnablementQuantity(f,DI), determined in accordance with clause 9.10.22(c) for Registered Facility f in Dispatch Interval DI, is greater than zero; and

ii. zero otherwise;

(d) RLEnabledFlag(f,DI) is:

i. 1 if RL_EnablementQuantity(f,DI), determined in accordance with clause 9.10.23(c) for Registered Facility f in Dispatch Interval DI, is greater than zero; and

ii. zero otherwise; and

(e) FCESSUpliftEligibleFlag(f,DI) is the FCESS Uplift Payment eligibility flag for Registered Facility f in Dispatch Interval DI, as calculated in accordance with clause 9.10.3F.

18.10 Delete clause 9.10.3J and replace it with the following:

9.10.3J. The share of the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI to be allocated to each applicable Frequency Co-optimised Essential System Service is:

$$\text{FCESSUplift\_Share(f,DI)} = \begin{cases} 0, \text{ if FCESSCount(f,DI)} = 0 \\ \dfrac{\text{FCESSUpliftPayment(f,DI)}}{\text{FCESSCount(f,DI)}}, \text{otherwise} \end{cases}$$

where:

(a) FCESSUpliftPayment(f,DI) is the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI as calculated under clause 9.10.3C; and

(b) FCESSCount(f,DI) is the number of Frequency Co-optimised Essential System Services to be allocated a share of the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI as calculated under clause 9.10.3I.

18.11 Delete clause 9.10.3K and replace it with the following:

9.10.3K. The share of the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI to be allocated to Contingency Reserve Raise is:

$$FCESSUplift\_CR(f,DI) = \begin{cases} FCESSUplift\_Share(f,DI) \times CREnabledFlag(f,DI), \\ \text{if } FCESSUpliftEligibleFlag(f,DI) = 1 \\ 0, \text{ otherwise} \end{cases}$$

where:

(a) FCESSUplift_Share(f,DI) is the share of the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI to be allocated to each applicable Frequency Co-optimised Essential System Service, as calculated under clause 9.10.3J;

(b) CREnabledFlag(f,DI) is the value calculated for Registered Facility f in Dispatch Interval DI under clause 9.10.3I(a); and

(c) FCESSUpliftEligibleFlag(f,DI) is the FCESS Uplift Payment eligibility flag for Registered Facility f in Dispatch Interval DI, as calculated in accordance with clause 9.10.3F.

18.12 Delete clause 9.10.3L and replace it with the following:

9.10.3L. The share of the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI to be allocated to Contingency Reserve Lower is:

$$FCESSUplift\_CL(f,DI) = \begin{cases} FCESSUplift\_Share(f,DI) \times CLEnabledFlag(f,DI), \\ \text{if } FCESSUpliftEligibleFlag(f,DI) = 1 \\ 0, \text{ otherwise} \end{cases}$$

where:

(a) FCESSUplift_Share(f,DI) is the share of the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI to be allocated to each applicable Frequency Co-optimised Essential System Service, determined under clause 9.10.3J;

(b) CLEnabledFlag(f,DI) is the value calculated for Registered Facility f in Dispatch Interval DI under clause 9.10.3I(b); and

(c) FCESSUpliftEligibleFlag(f,DI) is the FCESS Uplift Payment eligibility flag for Registered Facility f in Dispatch Interval DI, as calculated in accordance with clause 9.10.3F.

18.13 Delete clause 9.10.3M and replace it with the following:

9.10.3M. [Blank]

18.14 Delete clause 9.10.3N and replace it with the following:

9.10.3N. The share of the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI to be allocated to Regulation Raise is:

$$\text{FCESSUplift\_RR}(f,DI) = \begin{cases} \text{FCESSUplift\_Share}(f,DI) \times \text{RREnabledFlag}(f,DI), \\ \quad \text{if FCESSUpliftEligibleFlag}(f,DI) = 1 \\ 0, \text{ otherwise} \end{cases}$$

where:

(a) FCESSUplift_Share(f,DI) is the share of the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI to be allocated to each applicable Frequency Co-optimised Essential System Service, determined under clause 9.10.3J;

(b) RREnabledFlag(f,DI) is the value calculated for Registered Facility f in Dispatch Interval DI under clause 9.10.3I(c); and

(c) FCESSUpliftEligibleFlag(f,DI) is the FCESS Uplift Payment eligibility flag for Registered Facility f in Dispatch Interval DI, as calculated in accordance with clause 9.10.3F.

18.15 Delete clause 9.10.3O and replace it with the following:

9.10.3O. The share of the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI to be allocated to Regulation Lower is:

$$\text{FCESSUplift\_RL}(f,DI) = \begin{cases} \text{FCESSUplift\_Share}(f,DI) \times \text{RLEnabledFlag}(f,DI), \\ \quad \text{if FCESSUpliftEligibleFlag}(f,DI) = 1 \\ 0, \text{ otherwise} \end{cases}$$

where:

(a) FCESSUplift_Share(f,DI) is the share of the FCESS Uplift Payment for Registered Facility f in Dispatch Interval DI to be allocated to each applicable Frequency Co-optimised Essential System Service, determined under clause 9.10.3J;

(b) RLEnabledFlag(f,DI) is the value calculated for Registered Facility f in Dispatch Interval DI under clause 9.10.3I(d); and

(c) FCESSUpliftEligibleFlag(f,DI) is the FCESS Uplift Payment eligibility flag for Registered Facility f in Dispatch Interval DI, as calculated in accordance with clause 9.10.3F.

18.16 Delete clause 9.10.15 and replace it with the following:

9.10.15. The cost of procuring RoCoF Control Service in Dispatch Interval DI is:

$$\text{RCS\_Payable}(DI) = \sum_{f \in \text{Facilities}} \text{RCS\_Payable}(f,DI)$$

where:

(a) RCS_Payable(f,DI) is the RoCoF Control Service amount payable for Registered Facility f in Dispatch Interval DI as calculated in accordance with clause 9.10.14; and

(b) [Blank]

(c) f∈Facilities denotes all Registered Facilities f.

19. Glossary amended

19.1 Insert the following new definition of Available Capacity Scenario:

Available Capacity Scenario: The Scenario that is identical to the Reference Scenario for a Dispatch Interval or Pre-Dispatch Interval in a Market Schedule except that it includes any capacity offered as Available Capacity in Real-Time Market Submissions for which the relevant Start Decision Cutoff has not yet passed.

19.2 Insert the following new definition of Economic Price Offer:

Economic Price Offer: Has the meaning given in clause 2.16C.6A.

19.3 Delete the definition of Enablement Losses.

19.4 Delete the definition of Estimated FCESS Uplift Payment and replace it with the:

Estimated FCESS Uplift Payment: An estimate of the FCESS Uplift Payment for a Scheduled Facility or Semi-Scheduled Facility in a Dispatch Interval or Pre-Dispatch Interval, calculated by AEMO for a Market Schedule and Scenario in accordance with clause 7.17.1 and made available to the Market Participant in accordance with clause 7.13.1D(c).

19.5 Insert the following new definition of Facility Tiebreak Number:

Facility Tiebreak Number: A unique random number determined by AEMO for a Registered Facility for a Trading Day under clause 7.5.17.

19.6 Insert the following new definition of FCESS Minimum Dispatch Target:

FCESS Minimum Dispatch Target: The minimum theoretical Dispatch Target from which the Essential System Service Enablement Quantities for Contingency Reserve Raise, Contingency Reserve Lower, Regulation Raise and Regulation Lower for a Registered Facility could be provided in a Dispatch Interval, as calculated by AEMO in accordance with clause 9.10.3G.

19.7 Delete the words 'Enablement Losses' and replace them with 'enablement losses' in the definition of FCESS Uplift Payment.

19.8 Delete the reference to '9.10.3H' and replace it with '9.10.3C' in paragraph (b) of the definition of FCESS Uplift Payment.

19.9 Delete the word ‘a’ after the words ‘bound within’ and replace it with the words 'or across' in the definition of Fixed Assessment Period.

19.10 Delete the word 'Reference' and replace it with 'Available Capacity' in the definition of Not In-Service Capacity.

19.11 Insert the words ' (as adjusted by AEMO under clauses 7.4.51 or 7.4.51A, if applicable)' after the words 'quantity by the end of the Dispatch Interval' in paragraph (b) of the definition of Price-Quantity Pair.

19.12 Delete the definition of Rolling Test Window and replace it with the following:

Rolling Test Window: A period of three consecutive Trading Months, commencing at the start of the first Trading Day of a Trading Month and ending at the end of the last Trading Day of a Trading Month. A Rolling Test Window does not overlap with any other Rolling Test Window with a new Rolling Test Window commencing immediately after the previous one ends.

Schedule 3

1. Section 7.7 amended

1.1 Delete clause 7.7.14 and replace it with the following:

7.7.14. AEMO must document in a WEM Procedure the processes it will use to determine which Registered Facility to direct:

(a) under clauses 7.7.3, 7.7.4 or 7.7.5; or

(b) to synchronise to provide a RoCoF Control Service under clause 3.4.4(d).

Schedule 4

1. Section 7.13 amended

1.1 Insert the words ' and Available Capacity Scenario' after the words ' Reference Scenario' in clause 7.13.1I(b).