



Meeting Agenda

Meeting Title:	Cost Allocation Review Working Group (CARWG)
Meeting Number:	2023_08_29
Date:	Tuesday 29 August 2023
Time:	1:00pm to 3:00pm
Location:	Online, via TEAMS.

Item	Item	Responsibility	Type	Duration
1	Welcome and Agenda	Chair	Noting	2 min
2	Meeting Apologies/Attendance	Chair	Noting	2 min
4	Action Items	Chair	Noting	2 min
5	Draft Amending Rules	Marsden Jacob	Discussion	110 min
6	Next Steps	Chair	Noting	2 min
7	General Business	Chair	Discussion	2 min
	Next Meeting: TBD			

Please note this meeting will be recorded.

Competition and Consumer Law Obligations

Members of the Cost Allocation Review Working Group (**Members**) note their obligations under the *Competition and Consumer Act 2010 (CCA)*.

If a Member has a concern regarding the competition law implications of any issue being discussed at any meeting, please bring the matter to the immediate attention of the Chairperson.

Part IV of the CCA (titled "Restrictive Trade Practices") contains several prohibitions (rules) targeting anti-competitive conduct. These include:

- (a) **cartel conduct**: cartel conduct is an arrangement or understanding between competitors to fix prices; restrict the supply or acquisition of goods or services by parties to the arrangement; allocate customers or territories; and or rig bids.
- (b) **concerted practices**: a concerted practice can be conceived of as involving cooperation between competitors which has the purpose, effect or likely effect of substantially lessening competition, in particular, sharing Competitively Sensitive Information with competitors such as future pricing intentions and this end:
 - a concerted practice, according to the ACCC, involves a lower threshold between parties than a contract arrangement or understanding; and accordingly; and
 - a forum like the Cost Allocation Review Working Group is capable being a place where such cooperation could occur.
- (c) **anti-competitive contracts, arrangements understandings**: any contract, arrangement or understanding which has the purpose, effect or likely effect of substantially lessening competition.
- (d) **anti-competitive conduct (market power)**: any conduct by a company with market power which has the purpose, effect or likely effect of substantially lessening competition.
- (e) **collective boycotts**: where a group of competitors agree not to acquire goods or services from, or not to supply goods or services to, a business with whom the group is negotiating, unless the business accepts the terms and conditions offered by the group.

A contravention of the CCA could result in a significant fine (up to \$500,000 for individuals and more than \$10 million for companies). Cartel conduct may also result in criminal sanctions, including gaol terms for individuals.

Sensitive Information means and includes:

- (a) commercially sensitive information belonging to a Member's organisation or business (in this document such bodies are referred to as an Industry Stakeholder); and
- (b) information which, if disclosed, would breach an Industry Stakeholder's obligations of confidence to third parties, be against laws or regulations (including competition laws), would waive legal professional privilege, or cause unreasonable prejudice to the Coordinator of Energy or the State of Western Australia).

Guiding Principle – what not to discuss

In any circumstance in which Industry Stakeholders are or are likely to be in competition with one another a Member must not discuss or exchange with any of the other Members information that is not otherwise in the public domain about commercially sensitive matters, including without limitation the following:

- (a) the rates or prices (including any discounts or rebates) for the goods produced or the services produced by the Industry Stakeholders that are paid by or offered to third parties;
- (b) the confidential details regarding a customer or supplier of an Industry Stakeholder;
- (c) any strategies employed by an Industry Stakeholder to further any business that is or is likely to be in competition with a business of another Industry Stakeholder, (including, without limitation, any strategy related to an Industry Stakeholder's approach to bilateral contracting or bidding in the energy or ancillary/essential system services markets);
- (d) the prices paid or offered to be paid (including any aspects of a transaction) by an Industry Stakeholder to acquire goods or services from third parties; and
- (e) the confidential particulars of a third party supplier of goods or services to an Industry Stakeholder, including any circumstances in which an Industry Stakeholder has refused to or would refuse to acquire goods or services from a third party supplier or class of third party supplier.

Compliance Procedures for Meetings

If any of the matters listed above is raised for discussion, or information is sought to be exchanged in relation to the matter, the relevant Member must object to the matter being discussed. If, despite the objection, discussion of the relevant matter continues, then the relevant Member should advise the Chairperson and cease participation in the meeting/discussion and the relevant events must be recorded in the minutes for the meeting, including the time at which the relevant Member ceased to participate.

Agenda Item 4: CARWG Action Items

Cost Allocation Review Working Group (CARWG) Meeting 2023_08_29

Shaded	Shaded action items are actions that have been completed since the last MAC meeting.
Unshaded	Unshaded action items are still being progressed.
Missing	Action items missing in sequence have been completed from previous meetings and subsequently removed from log.

Item	Action	Responsibility	Meeting Arising	Status
13	Neoen to provide EPWA with the calculations for its proposal to allocate Contingency Reserve Lower costs so that EPWA can make sure that it has a proper understanding of it.	Neoen	2023_03_21	Closed Neoen did not provided a response on this action item. This issue was addressed in Chapter 6 of the Cost Allocation Review Information Paper
14	AEMO to provide further information on the risk of tripping for loads, batteries and generators.	AEMO	2023_03_21	Closed AEMO provided a response on this action item on 28 April 2023.
15	AEMO to advise what a requirement for it to determine the risk factor of a facility would mean in practice.	AEMO	2023_03_21	Open AEMO did not provided a response on this action item. This issue was addressed in Chapter 5 of the Cost Allocation Review Information Paper.

Item	Action	Responsibility	Meeting Arising	Status
16	The CARWG Secretariat is to publish the minutes of the 21 March 2023 CARWG meeting on the Coordinator's website as final.	EPWA	2023_05_02	Closed The minutes were published on the website on 3 May 2023.
17	The CARWG Secretariat is to publish the minutes of the 2 May 2023 CARWG meeting on the Coordinator's website as final.	EPWA		Closed The minutes were approved out of session and published on the website on 1 June 2023.



Agenda Item 5: Draft Amending Rules

Cost Allocation Review Meeting 2023_08_29

1. Purpose

To give the Cost Allocation Review Working Group (CARWG) an opportunity to provide comments on the Cost Allocation Review Exposure Draft Proposed Wholesale Electricity Market Amending Rules (Draft Amending Rules – Attachment 1).

2. Recommendation

That the CARWG provide comments on the Draft Amending Rules (Attachment 1).

3. Background

- The CARWG provided out-of-session approval of the minutes from the CARWG meeting on 2 May 2024 were and the minutes were published on 1 June 2023 (<https://www.wa.gov.au/government/document-collections/cost-allocation-review-working-group>).
- Energy Policy WA published the Cost Allocation Review (CAR) Information Paper on 15 June 2023. The Information Paper and all relevant papers are available on the CAR webpage (<https://www.wa.gov.au/government/document-collections/cost-allocation-review>).
- The Draft Amending Rules set out proposed amendments to the WEM Rules to implement the outcomes from the Cost Allocation Review for allocation of costs for Regulation services, Contingency Reserve Lower services and Contingency Reserve Raise services.

4. Next Steps

Step	Timing
(1) EPWA to publish draft Amending Rules	5 September 2023
(2) Submissions close on the draft Amending Rules.	3 October 2023
(3) EPWA to seek Ministerial approval for Amending Rules	October 2023
(4) Commencement of the Amending Rules	TBD (consistent with timing for commencement of five minute settlement)

5. Attachments

- (1) Cost Allocation Review: Exposure Draft Proposed Wholesale Electricity Market (WEM) Amending Rules

**COST ALLOCATION REVIEW: EXPOSURE DRAFT
PROPOSED WHOLESALE ELECTRICITY MARKET (WEM) AMENDING RULES**

Explanatory Note

This exposure draft sets out proposed amendments to the WEM Rules to implement the outcomes from the Cost Allocation Review,¹ including:

- Regulation services:
 - Changes are proposed to clauses 9.10.37, 9.10.38, 9.10.39; to the definitions in Chapter 11; and to insert a new appendix 2D.
 - The proposed changes will implement the 'WEM Deviation Method',² which was developed as part of the Cost Allocation Review and was outlined in the Cost Allocation Review Information Paper.
- Contingency Reserve Lower services:
 - Changes are proposed to clauses 7.13.1E and 9.10.32; to the definitions in Chapter 11; and to insert a new Appendix 2E.
 - The proposed changes are to apply a modified runway method to allocate Contingency Reserve Lower costs, as follows:
 - If a Network Contingency sets the Contingency Reserve Lower requirement in a Dispatch Interval, the costs of procuring contingency reserves will be split into two components:
 - (1) determine the Load Contingency Reserve Lower cost allocation as:
 - the Facility Runway Share: apply the runway method to allocate Contingency Reserve Lower costs to Loads > 120 MW;
 - the Facility Consumption Share: apply the existing allocation method (pro-rata based on energy consumption) to allocate Contingency Reserve Lower costs to Loads ≤ 120 MW; and
 - (2) determine the Network Contingency Reserve Lower cost allocation as:
 - apply a runway method to allocate the network component of Contingency Reserve Lower costs to Loads > 120 MW.
 - If a Load Contingency sets the Contingency Reserve Lower requirement in a Dispatch interval, then only step (1) will apply.
- Contingency Reserve Raise services:
 - Changes are proposed to Appendix 2A.
 - The proposed changes will allow separate dispatchable electricity producing units within a Facility to be assigned separate Facility Risk Values for the purposes of allocating Contingency Reserve Raise costs under the runway method, if the units are independently dispatchable and have separate network connections.

¹ Background on the Cost Allocation Review can be found on the Cost Allocation Review page of Energy Policy WA website at <https://www.wa.gov.au/government/document-collections/cost-allocation-review>.

² Information on the WEM Deviation Method can be found in section 4 of the Cost Allocation Review Information Paper at https://www.wa.gov.au/system/files/2023-06/cost_allocation_review-information-paper-final.pdf.

The intent is to concurrently commence the WEM Amending Rules to implement the outcomes of the Cost Allocation Review and the WEM Amending Rules to implement five-minute settlement.

This exposure draft is based on the Consolidated Companion Version of the WEM Rules³ and incorporates the draft WEM Amending Rules to implement five-minute settlement.⁴

Energy Policy WA is seeking stakeholder feedback on this exposure draft by **5:00 PM on 5 October 2023**. Feedback can be sent to energymarkets@dmirs.wa.gov.au.

Following completion of this consultation, EPWA will compile a single set of WEM Amending Rules that incorporates the five-minute settlement rules and this Exposure Draft. EPWA will provide the resulting WEM Amending Rules to the Minister for Energy for his approval. The resulting amendments are proposed to commence at the start of the first Trading Week on or after 1 October 2025.

Mark-up Colour guide:

Text in black	Rules that are in force
Text in green	Amending Rules that have been made and will commence on a specified date
Text in blue	The Consolidated Companion Version of the WEM Rules (i.e. the WEM Amending Rules that have been made and are expected to commence on New WEM Commencement Day).
Text in red – <u>underlined</u> and striketrough	New amendments proposed.

³ The Consolidated Companion Version of the WEM Rules is available at https://www.wa.gov.au/system/files/2023-07/wemrules-companion-version-prepared_as22july2023.pdf.

⁴ The Five-Minute Settlement Exposure Draft was published on 17 July 2023 and is available at https://www.wa.gov.au/system/files/2023-07/five-minute_settlement_project-wem_amending_rulese_exposure_draft.pdf.

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7.13. Settlement and Monitoring Data

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7.13.1E. AEMO must prepare and publish on the WEM Website the following data for a Trading Day by noon on the first Business Day following the day on which the Trading Day ends:

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(g) for each Dispatch Interval of the Trading Day:

- i. all Facility Risks for that Dispatch Interval; and
- ii. for each Network Contingency which is a Credible Contingency Event that is taken into account when setting the Contingency Reserve Raise or Contingency Reserve Lower requirements under clause 7.2.4 in that Dispatch Interval:
 1. the Network Risk associated with that Network Contingency; and
 2. the Registered Facilities whose Facility Risks are included in the Network Risk associated with that Network Contingency; and

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9.10. Settlement Calculations – Essential System Services

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9.10.32. The Contingency Reserve Lower amount recoverable from Market Participant p for Trading Dispatch Interval t DI is:

$$\text{CL_Recoverable}(p,t) = \text{CL_Payable}(t) \times \text{ConsumptionShare}(p,t)$$

$$\text{CL_Recoverable}(p,DI) = \text{CL_Payable}(DI) \times \text{ParticipantCLShare}(p,DI)$$

where:

- (a) CL_Payable(DI) is the total cost of procuring Contingency Reserve Lower in Dispatch Trading-Interval DI t as calculated in accordance with clause 9.10.11; and
- ~~(b) ConsumptionShare(p,t) is the Consumption Share for Market Participant p for Trading Interval t as calculated in accordance with clause 9.5.6.~~
- (b) ParticipantCLShare(p,DI) is Market Participant p's share of the total cost of procuring Contingency Reserve Lower in Dispatch Interval DI as calculated following the steps set out in Appendix 2E.

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9.10.37. Market Participant p's share of the total cost of Regulation payable for ~~Trading Interval t~~ Dispatch Interval DI is:

$$\text{Regulation_Share}(p,t) = \frac{\text{RegulationContributingQuantity}(p,t)}{\text{RegulationContributingQuantity}(t)}$$

$$\text{Regulation_Share}(p,DI) = \sum_{f \in p} \text{Contribution_Factor}(f,DI) + \text{RL_Contribution_Factor}(p,DI)$$

where:

- ~~(a) RegulationContributingQuantity(p,t) is the quantity calculated in accordance with clause 9.10.38; and~~
- ~~(b) RegulationContributingQuantity(t) is the quantity calculated in accordance with clause 9.10.39.~~
- (a) Contribution Factor(f,DI) is the share of the total cost of Regulation services payable for Dispatch Interval DI for all Regulation Facilities f other than Residual Load, calculated in accordance with section 2.3 of Appendix 2D;
- (b) f ∈ p is the set of all Regulation Facilities f registered to Market Participant p, other than the Residual Load; and
- (c) RL_Contribution_Factor(p,DI) is the Share of the total cost of Regulation services payable for Dispatch Interval for all loads in the Residual Load that are allocated to Market Participant p, calculated in accordance with section 2.4 of Appendix 2D.

9.10.38. [Blank] Market Participant p's Regulation contributing quantity in ~~Trading Interval t~~ is:

$$\text{RegulationContributingQuantity}(p,t)$$

$$= \sum_{\text{SSF} \in p} |\text{MeteredSchedule}(\text{SSF},t)| + \sum_{\text{NSF} \in p} |\text{MeteredSchedule}(\text{NSF},t)|$$

$$+ \sum_{NDL \in p} |MeteredSchedule(NDL, t)|$$

where:

- (a) ~~MeteredSchedule(SSF, t) is the Metered Schedule of Semi-Scheduled Facility, SSF, in Trading Interval t;~~
- (b) ~~SSF ∈ p denotes all Semi-Scheduled Facilities, SSF, registered to Market Participant p;~~
- (c) ~~MeteredSchedule(NSF, t) is the Metered Schedule of Non-Scheduled Facility, NSF, in Trading Interval t;~~
- (d) ~~NSF ∈ p denotes all Non-Scheduled Facilities, NSF, registered to Market Participant p;~~
- (e) ~~MeteredSchedule(NDL, t) is the Metered Schedule of Non-Dispatchable Load, NDL, in Dispatch Interval t; and~~
- (f) ~~NDL ∈ p denotes all Non-Dispatchable Loads, NDL, associated with Market Participant p (including Synergy's Notional Wholesale Meter where Synergy is Market Participant p).~~

9.10.39. [Blank] ~~The Regulation contributing quantity in Dispatch Interval t is:~~

$$\text{RegulationContributingQuantity}(t) = \sum_{p \in P} \text{RegulationContributingQuantity}(p, t)$$

where:

- (a) ~~RegulationContributingQuantity(p, t) is Market Participant p's Regulation contributing quantity in Trading Interval t calculated in accordance with clause 9.10.38; and~~
- (b) ~~p ∈ P denotes all Market Participants.~~

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11. Glossary

Explanatory Note

The following definitions will be inserted into Chapter 11 in alphabetical order.

Adjusted Dispatch Target: means the Dispatch Target for a Scheduled Facility or Semi-Scheduled Facility providing ESS, adjusted for any Regulation services provided by the Facility and any frequency response provided by the Facility in the Dispatch Interval under clause A12.6.1.10 of Appendix 12.

CL Threshold: means the threshold above which the runway method is applied to allocate Contingency Reserve Lower costs, as specified in Appendix 2E.

Contribution Factor: means the Regulation services cost recovery factor for a Facility for a Dispatch Interval, calculated in accordance with section 2.4 of Appendix 2D.

Deviation: means the difference between the 4-second SCADA data for a Facility (for injection or withdrawal) and the Reference Trajectory for the Facility.

Facility Risk: means:

- (a) _____ for a Facility, the sum of energy and Regulation Raise cleared from the relevant Facility in that Dispatch Interval; and
- (b) _____ for the purposes of Appendix 2E, for Scheduled Facilities, Semi-Scheduled Facilities and Non-Dispatchable Loads, the sum of energy consumed in a Dispatch Interval.

Final Reference Value: means the end point for a Facility's Reference Trajectory, and is a Facility's actual, forecast or metered injection or withdrawal at the end of a Dispatch Interval, depending on the Facility type, as defined in section 2.1(d) of Appendix 2D.

Implied Forecast Quantity: means the calculated metering quantity for the Residual Load at the end of a Dispatch Interval, as calculated under section 2.1(i) of Appendix 2D.

Implied Metered Quantity: means calculated metered quantity for the Residual Load at the start of a Dispatch Interval, as calculated under section 2.1(h) of Appendix 2D.

Initial Reference Value: means the starting point for a Facility's Reference Trajectory and is a metered quantity for a Facility or the implied MW metered quantity for Residual Loads, at the start of the Dispatch Interval.

Injection Forecast: means the end of Dispatch Interval forecasts for Semi-Scheduled Facilities that do not provide ESS and Non-Scheduled Facilities for the purposes of allocating Regulation services costs under Appendix 2D.

Network Risk: means, for a Network Contingency in a Dispatch Interval, the sum in MW of the Facility Risks for any Registered Facilities less the forecast consumption of any relevant Loads that are connected to the part of the Network affected by that Network Contingency, and that would lose the ability to Inject or Withdraw from the Network as a result of that Network Contingency.

Reference Trajectory: means the notional dispatch trajectory for a Facility that is determined every 4 seconds based on a linear trajectory from the start and end of a 5 minute Dispatch Interval, as defined in sections 2.1(c) and (d) of Appendix 2D.

Regulation Facility mean the following Facilities and Loads for the purposes of allocating Regulation services:

- (a) _____ Scheduled Facilities;
- (b) _____ Semi-Scheduled Facilities;

(c) Non-Scheduled Facilities;

(e) Non-Dispatchable Loads with SCADA metering; and

(f) Residual Loads.

Residual Load: means the implied demand for Non-Dispatchable Loads without SCADA metering, calculated by subtracting all withdrawal Facilities SCADA data from all injection Facilities SCADA data every 4 seconds.

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Appendix 2A: Runway share calculation method

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1.4 If a Facility meets the requirements of section 2.5 of this Appendix and has been confirmed by AEMO under section 2.7(a) of this Appendix, then each electricity producing unit in an Energy Producing System to which section 2.1(c) of this Appendix 2A applies is treated as a separate Facility for the purposes of allocating Contingency Reserve Raise costs under this Appendix 2A.

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2.5. Subject to AEMO's assessment and determination in accordance with section 2.7(a) of this Appendix, one or more electricity producing units in an Energy Producing System that is part of a Facility may be treated separately for the purposes of allocating Contingency Reserve Raise costs under Appendix 2A, provided that the units meet the following criteria:

- (a) each electricity producing unit (or set of units) could be dispatched separately from the other units if they were separately Registered; and
- (b) each electricity producing unit (or set of units) has a separate network connection from the other units.

2.6. A Market Participant that wants the separate electricity producing unit (or set of units) within an Energy Producing System to be treated separately for the purposes of Appendix 2A must:

- (a) apply to AEMO and must provide AEMO with any information that AEMO requires to assess the application in accordance with the WEM Procedure published in accordance with section 2.7 of this Appendix;
- (b) as soon as practicable, provide AEMO with updated information that has the potential to impact on:
 - i. whether the energy producing unit (or set of units) continue to meet the criteria in section 2.5 of Appendix 2A and/or the requirements in the WEM Procedure published in accordance with section 2.7 of this Appendix; and/or
 - ii. the Facility Risk of any of the electricity producing units (or set of units).

2.7. AEMO must assess any application received under section 2.6(a) or any updated information provided under section 2.6(b) and determine:

- (a) whether the energy producing units (or set of units) within an Energy Producing System can be treated, or continue to be treated, separately for the purposes of Appendix 2A, based on:
 - i. the criteria in section 2.5 of Appendix 2A and the requirements in the WEM Procedure published in accordance with section 2.7 of this Appendix; and
 - ii. the information provided under section 2.6 of this Appendix;
- (b) the Facility Risk for each electricity producing unit (or set of units), as determined under section 2.8 of this Appendix.

2.8. AEMO must publish a WEM Procedure specifying:

- (a) the process to be followed by a Market Participant to make an application and/or provide updated information, as required by section 2.6 of this Appendix;
- (b) the method AEMO will use to determine whether one or more electricity producing units in an Energy Producing System can be treated separately for the purposes of Appendix 2A, including:
 - i. that the electricity producing units meet the criteria in section 2.5 of Appendix 2A and any additional requirements specified in the WEM Procedure;
 - ii. what is the largest contingency associated with the Energy Producing System and its network connections;
 - iii. that it is possible to measure the Facility Risk for one or more of the energy producing units (a subset of the Energy Producing System) and to treat the energy producing units separately for the purposes of Appendix 2A; and
- (c) how AEMO will determine the Facility Risk of any of the separate electricity producing units (or set of units).

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Appendix 2D: Calculation of Regulation Shares for Regulation Cost Recovery

Explanatory Note

Appendix 2D sets out the steps for AEMO to follow to determine Regulation_Share(f,DI), which is the share of Regulation services costs allocated to each Regulation Facility f in each Distribution Interval DI. Appendix 2D uses the WEM Deviation Method and calculates 5-minute Contribution Factors for each Facility injecting or withdrawing in the WEM.

Contribution Factors are calculated for Regulation Facilities based on variations in the injection or withdrawal of the Regulation Facilities.

Facility Contribution Factors are determined for each Regulation Facility based on the deviation of their generation or load from a Reference Trajectory (i.e., a linear trajectory from the start to the end of a 5 minute Dispatch Interval) using 4-second SCADA data for the Regulation Facility. The Reference Trajectory varies according to Facility type.

Residual Loads are Non-Dispatchable Loads that do not have SCADA metering. Residual Load are not a distinct facility and represent the majority of the loads in the WEM. Since Residual Load does not have SCADA metering, 4-second injection data (i.e., net generation due to behind the meter generation exceeding load) and withdrawal data (net load) is calculated based on the difference between injection facilities and withdrawal facilities with SCADA data.

A Contribution Factor is calculated for Residual Load in the same way as for specific Regulation Facilities and is then attributed to Market Customers serving the Residual Load in proportion to their metered energy consumption.

1. Interpretation

1.1. If anything is to be determined, calculated or done in this Appendix, then except if otherwise stated, AEMO will determine, calculate or do that thing.

2. Calculate Contribution Factors

2.1. The 4-second Deviation value for Regulation Facility f is calculated as:

$$\text{Deviation}(f,s) = \text{SCADA_Quantity}(f,s) - \text{Trajectory_Quantity}(f,s)$$

where:

- (a) SCADA_Quantity(f,s) is the MW quantity that Regulation Facility f injected or withdrew for each four second period s within a Dispatch Interval, as recorded by the SCADA system operated by AEMO or the relevant Network Operator (as applicable);
- (b) Trajectory_Quantity(f,s) is the MW quantity that Regulation Facility f would have injected or withdrawn in each four second period s within the Dispatch Interval if the Regulation Facility had injected or withdrawn in accordance with its Reference Trajectory;
- (c) the Reference Trajectory for Regulation Facility f is a straight line between the Regulation Facility's Initial Reference Value and its Final Reference Value for the Dispatch Interval;
- (d) a Regulation Facility's Initial Reference Value and Final Reference Value are based on the type of Regulation Facility, as follows:

<u>Regulation Facility type</u>	<u>Initial Reference Value</u>	<u>Final Reference Value</u>
<u>i. Scheduled Facilities</u>	<u>The Facility's MW quantity at the start of the Dispatch Interval.</u>	<u>The Facility's Adjusted Dispatch Target at the end of the Dispatch Interval.</u>
<u>ii. Semi-Scheduled Facilities providing ESS</u>		
<u>iii. Semi-Scheduled Facilities not providing ESS</u>	<u>The Facility's MW quantity at the start of the Dispatch Interval.</u>	<u>The Facility's Injection Forecast at the end of the Dispatch Interval.</u>
<u>iv. Non-Scheduled Facilities</u>		
<u>v. Non-Dispatchable Loads with SCADA</u>	<u>The Load's MW quantity at the start of the Dispatch Interval.</u>	<u>The Load's MW quantity at the end of the Dispatch Interval.</u>
<u>vi. Residual Load</u>	<u>The Implied Quantity at the start of the Dispatch Interval.</u>	<u>The Implied Forecast Quantity.</u>

(e) a Facility's or Load's MW quantities at the start or end of a Dispatch Interval is as recorded by the SCADA system operated by AEMO or the relevant Network Operator (as applicable);

(f) the Adjusted Dispatch Target for Scheduled Facilities and Semi-Scheduled Facilities providing ESS is the Dispatch Target for the Facility adjusted for:

- i. any Regulation Raise services cleared for the Facility for the Dispatch Interval;
- ii. any Regulation Lower services cleared for the Facility for the Dispatch Interval;
- iii. any frequency response provided by the Facility in the Dispatch Interval under section A12.6.1.10 of Appendix 12;
- iv. any directions provided by AEMO;

(g) the Injection Forecast for Semi-Scheduled Facilities not providing ESS and Non-Scheduled Facilities are determined under section 3 of this Appendix;

(h) the Implied Metered Quantity for Residual Loads (RL) at the start of a Dispatch Interval is calculated as:

$$\text{Implied_Metering_Quantity(RL, s)} = \sum_{f \in I^F} \text{Injection}(f, s) - \sum_{f \in L} \text{Withdrawal}(f, s)$$

where:

- i. Injection(f,s) is the MW metered quantity that Facility f injected for the four second period s at the start of the Dispatch Interval, recorded by the SCADA system operated by AEMO or the relevant Network Operator (as applicable);
- ii. f ∈ I^F denotes all Facilities f that injected in the four second period s;
- iii. Withdrawal(f,s) is the MW metered quantity that Facility f withdrew for the four second period s at the start of the Dispatch Interval, as recorded by

the SCADA system operated by AEMO or the relevant Network Operator (as applicable);

iv. f_{∈L} denotes all Facilities and Non-Dispatchable Loads for which AEMO's SCADA system recorded withdrawals in the four second period s;

(i) the Implied Forecast Quantity for Residual Loads (RL) at the end of a Dispatch Interval is calculated as:

$$\text{Implied_Forecast_Quantity}(RL,s) = \sum_{f \in IF} \text{Injection}(f,s) - \sum_{f \in NL} \text{Withdrawal}(f,s)$$

where:

i. Injection(f,s) is the MW metered quantity that Facility f injected in the four second period s at the end of the Dispatch Interval, and is the:

1. the Dispatch Target for Scheduled Facilities or Semi-Scheduled Facility providing ESS;
2. the Injection Forecast for a Semi-Scheduled Facility not providing ESS or a Non-Scheduled Facility;

ii. f_{∈IF} denotes all Facilities f that injected in the four second period s;

iii. Withdrawal(f,s) is the MW quantity that a Facility or Non-Dispatchable Load with SCADA metering (f) withdrew for the four second period s at the end of the Dispatch Interval, as recorded by the SCADA system operated by AEMO or the relevant Network Operator (as applicable); and

iv. f_{∈NL} denotes all Facilities (withdrawing power) and Non-Dispatchable Loads with SCADA metering.

2.2. The Deviation value for all Regulation Facilities f is calculated as follows:

$$\text{Deviation}(f,DI) = \sum_{s \in DI} |\text{Deviation}(f,s)|$$

where:

(a) Deviations(f,s) is calculated in accordance with section 2.1 of this Appendix; and

(b) s_{∈DI} is the set of all 4-second periods s within Dispatch Interval DI for which metering data is recorded by the SCADA system operated by AEMO or the relevant Network Operator (as applicable).

2.3. The Contribution Factor for each Regulation Facility f in Dispatch Interval DI is calculated as:

$$\text{Contribution_Factor}(f,DI) = \frac{\text{Deviation}(f,DI)}{\sum_{f \in F} \text{Deviation}(f,DI)}$$

where:

(a) Deviation(f,DI) is calculated in section 2.2 of this Appendix; and

(b) f_{∈F} denotes the set of all Regulation Facilities, including Residual Load.

2.4. The Contribution Factor for the Residual Load is allocated to Market Participants p is calculated as follows:

$$\text{RL_Contribution_Factor}(p,DI) = \frac{\text{Contribution_Factor}(RL,DI) \times \sum_{L \in P} |\text{Metered_Consumption}(L,DI)|}{\sum_{L \in RL} |\text{Metered_Consumption}(L,DI)|}$$

where:

- (a) Contribution Factor(RL,DI) is the Contribution Factor(f,DI) calculated in clause 2.3 of this Appendix for the Residual Load;
- (b) Metered Consumption(L,DI) is the metered consumption by loads L in the Residual Load in Dispatch Interval DI;
- (b) LEP is the set of metering connection points for loads L in the Residual Load that are allocated to Market Participant p; and
- (d) LERL is the set of metering connection points for all loads in the Residual Load.

Explanatory Note

In applying the WEM Deviation Method to a Facility, AEMO must develop Injection Forecasts for Semi-Scheduled Facilities that do not provide ESS and for Non-Scheduled Facilities.

AEMO must develop a method for determining the Injection Forecasts and must use these for the development of AEMO's Dispatch Forecasts unless the relevant participant advises AEMO that it must use the Unconstrained Forecasts submitted by the Market Participant instead.

3. Injection Forecasts

3.1. AEMO must determine Injection Forecasts for Semi-Scheduled Facilities that do not provide ESS and for Non-Scheduled Facilities for the purposes of the calculations in section 2.1 of this Appendix.

3.2. AEMO:

- (a) must provide the Injection Forecast for a Facility to the relevant Market Participant at the same time as it issues Dispatch Instructions for the Real-Time Market, in accordance with clauses 7.1.2 and 7.1.3; and
- (b) unless it is notified by the Market Participant in accordance with section 3.3 of this Appendix, AEMO must use the Injection Forecast determined in accordance with section 3.1 of this Appendix to determine the Dispatch Forecast for the Facility.

Explanatory Note

Market Participants may notify AEMO that they require AEMO to use the Unconstrained Forecasts provided as part of their Real-Time Balancing Submissions for the purposes of the calculations in this Appendix, instead of the Injection Forecasts developed by AEMO.

In accordance with clause 7.2.4A, AEMO may determine and use as an input to the Dispatch Algorithm alternative forecast quantities to the Unconstrained Injection Forecasts and Unconstrained Withdrawal Forecasts provided in a Real-Time Market Submission if AEMO reasonably considers that the alternative forecast quantities are likely to be more accurate.

AEMO must develop a WEM Procedure for developing the Injection Forecasts under section 3.1 of this Appendix.

3.3. A Market Participant to which a Semi-Scheduled Facility that does not provide ESS or a Non-Scheduled Facility is registered may notify AEMO that it requires AEMO to use the Unconstrained Injection and Withdrawal Forecast that the Market Participant provided in the Real-Time Market Submission for the Facility under clause 7.4.1 instead of the Injection Forecast developed by AEMO under section 3.1 of this Appendix.

3.4 If notified by the relevant Market Participant in accordance with section 3.3 of this Appendix, AEMO must not use the Injection Forecasts developed by the AEMO, unless AEMO has determined alternative forecast quantities in accordance with clause 7.2.4A.

4. Contingency Reserve Lower Cost Allocation Procedure

4.1. AEMO must publish WEM Procedure specifying:

- (a) how it would adjust Injection Forecasts to account for the provision of primary frequency response by a Semi-Scheduled Facility that does not provide ESS or a Non-Scheduled Facility under section 2.1(f) of this Appendix; and
- (b) the method it uses to develop the Injection Forecasts under section 3 if this Appendix.

Appendix 2E: Calculation of Contingency Reserve Lower Share

1. Interpretation

- 1.1. If anything is to be determined, calculated, or done in accordance with this Appendix, then except if otherwise stated, AEMO will determine, calculate, or do that thing.
- 1.2. AEMO must calculate a Market Participant's share of the cost of procuring Contingency Reserve Lower in Dispatch Interval DI by following the steps set out in this Appendix.
- 1.3. For the purposes of Appendix, CL Threshold = 120 MW.

2. Define Facility Sets and Facility Contingencies

- 2.1. Determine Facilities(DI) as the set of all:
- (a) Scheduled Facilities, Semi-Scheduled Facilities and Non-Scheduled Facilities that have a net withdrawal in a Dispatch Interval DI;
 - (b) Non-Dispatchable Loads with SCADA metering, and;
 - (c) Non-Dispatchable Loads without SCADA metering.

Explanatory Note

Electric Storage Resources are picked up as Scheduled Facilities. Hybrid facilities that include Electric Storage Resources may be either Scheduled Facilities or Semi-Scheduled Facilities.

- 2.2. FacilityRisk(f, DI) is equal to the Facility's MWh consumption, multiplied by 6 to convert to MW.
- 2.3. FacilityRisk(f, DI) for Non-Dispatchable Loads without SCADA metering is deemed to be < CL Threshold.

Explanatory Note

Non-Dispatchable Loads without SCADA metering (which includes the Notional Wholesale Meter) is a combination of non-contestable loads and none of these loads cause the requirement for Contingency Reserve Lower services above the CL_Threshold. Only facilities behind a single connection with consumption in excess of CL_Threshold are allocated the additional costs of providing Contingency Reserve Lower services. Non-Dispatchable Loads without SCADA metering is not an Applicable Facility for the purposes of applying the runway calculations in section 3 of this Appendix.

- 2.4. Determine the ApplicableFacilities(DI), which comprises those members f of Facilities(DI) for which FacilityRisk(f,DI) > CL Threshold.

Explanatory Note

Section 3 calculates the Facility Runway Share for all members of ApplicableFacilities(DI) (i.e., with consumption > CL_Threshold) using the runway method. Each Facility is ranked in ascending order of their Facility Risk value and allocated a runway share based on that rank.

Section 4 calculates the Facility Threshold Share for Facilities \leq CL_Threshold, which is pro-rated on the basis of energy consumption.

Section 5 sums each Facility's Facility Runway Share and Facility Threshold Share to get the total allocation of CRL costs for each Facility in a Dispatch Interval.

Consider the following example with two Facilities in excess of the CL_Threshold:

- Facility A = 250 MW;
- Facility B = 180 MW; and
- Non-Dispatchable Loads, both those with and without SCADA metering, is 1,800 MW in the DI.

The Facility Risk and ranking of the Facilities in excess of the CL_Threshold is:

- Facility A has the highest Facility Risk value at 70 MW (=250 MW – 180 MW), FacilityMW(rank=3,DI);
- Facility B has the next highest Facility Risk value at 60 MW (= 180 MW – 120 MW), FacilityMW(rank=2,DI); and
- The CL_Threshold of 120 MW is deemed to be FacilityMW(rank=1,DI).

The Facility Runway Shares for the portion of the Facilities' loads exceeding the CL_Threshold are calculated as:

- Facility A = $(70)/(250*(1+1-1)) + (60)/(250*(2+1-1)) = 28.00\%/1 + 24.00\%/2 = 40.00\%$.
- Facility B = $(60)/(250*(2+1-1)) = 24.00\%/2 = 12.00\%$.
- The total recovery of Contingency Reserve Lower service costs for the portion of loads exceeding the CL_Threshold (total FacilityRunwayShare) is $12.00\% + 40.00\% = 52.00\%$.

The Facility Threshold Shares for the portion of the Facilities' loads below the CL_Threshold are calculated as:

- The Facility Threshold Shares equals the Consumption Runway Share multiplied by (1 minus the FacilityRunwayShare) = $(1-52.00\%)$.
- Facility A = $[120/(1800+120+120)]*(1-52\%) = 2.82\%$.
- Facility B = $[120/(1800+120+120)]*(1-52\%) = 2.82\%$.
- The Non-Dispatchable Loads Consumption Share = $[1800/(1800+120+120)]*(1-52\%) = 42.35\%$.

The total allocation of Contingency Reserve Lower costs in the Dispatch Interval for each Facility is the sum of Facility Runway Shares and Facility Threshold Shares:

- Facility A = $40\%+2.82\% = 42.82\%$.
- Facility B = $12.00\%+2.82\% = 14.82\%$.
- Non-Dispatchable Loads: = $0\% + 42.35\% = 42.35\%$.

The cost shares add up to 100%:

$14.82\%+42.82\%+42.35\%$ (0.01% rounding error in this example).

3. Determine the Facility Runway Share for each Applicable Facility

3.1. Rank the Facilities in the set ApplicableFacilities(DI) in Dispatch Interval DI in ascending order of the value of FacilityRisk(f,DI) determined in sections 2.2 and 2.3 of this Appendix:

(a) If two or more Facilities in that set have the same FacilityRisk(f,DI) value, AEMO must rank those Facilities in ascending alphabetical order of the name of the Facilities recorded by AEMO in accordance with clause 2.34B.1.

(b) CL Threshold is deemed to be the Facility with the lowest FacilityRisk(f,DI) and will have rank(f, DI) = 1.

(c) The Facility with the highest FacilityRisk(f,DI) value will have rank(f, DI) = n, where n is the number of Facilities in the set ApplicableFacilities(DI).

3.2. Determine runway share of the cost of procuring Contingency Reserve Lower for each Facility f in ApplicableFacilities(DI) as follows:

$$\text{FacilityRunwayShare}(f,DI) = \sum_{i=1}^{\text{Rank}(f,DI)} \frac{\text{FacilityMW}(i,DI) - \text{FacilityMW}(i-1,DI)}{\text{FacilityMW}(n,DI) \times (n+1-i)}$$

where:

(a) FacilityMW(1,DI) is CL Threshold;

(b) FacilityMW(i,DI) is the FacilityRisk(x,DI) value of Facility x with rank(x,DI) = i in Dispatch Interval DI, where:

i. for i=1, FacilityMW(0,DI) = 0; and

ii. $x \in \text{ApplicableFacilities}(DI)$;

(c) Rank(f,DI) is the rank of Facility f in Dispatch Interval DI as determined in section 3.1 of this Appendix; and

(d) n is the number of Facilities in the set ApplicableFacilities(DI) in Dispatch Interval DI.

3.3. FacilityRunwayShare(f,DI) = 0 for:

(a) Facilities f in Dispatch Interval DI with MeteredConsumption(f,DI) < CL Threshold; and

(b) the Notional Wholesale Meter.

3.4. Calculate the TotalRunwayShare(DI) as follows:

$$\text{TotalRunwayShare}(DI) = \sum_{f \in F} \text{FacilityRunwayShare}(f,DI)$$

where:

(a) FacilityRunwayShare(f,DI) are determined in sections 3.2 and 3.3 of this Appendix; and

(b) $f \in F$ denotes all Facilities f in the set of ApplicableFacilities(DI).

4. Determine the Facility Threshold Share for each Facility

4.1. Determine the deemed FacilityConsumption(f,DI) for each Facility f in each Dispatch Interval DI as follows:

(a) If MeteredConsumption(f,DI) \geq CL Threshold, then the deemed FacilityConsumption(f,DI) = CL Threshold;

(b) If MeteredConsumption(f,DI) < CL Threshold, then the deemed FacilityConsumption(f,DI) = MeteredConsumption(f,DI);

(c) the deemed FacilityConsumption(f,DI) for Non-Dispatchable Loads without SCADA metering is the metered consumption for the aggregate of these loads, which includes the Notional Wholesale Meter; and

(d) MeterConsumption(f, DI) is the is equal to the Facility's MWh consumption, multiplied by 6 to convert to MW.

4.2. Determine the FacilityThresholdShare(f,DI) for each Registered Facility f as follows:

$$\text{FacilityThresholdShare}(f,DI) = \frac{\text{FacilityConsumption}(f,DI)}{\sum_{f \in F} \text{FacilityConsumption}(f,DI)}$$

where:

(a) FacilityConsumption(f,DI) is determined in section 4.1 of this Appendix; and

(b) $f \in F$ denotes all f in the set of Facilities(DI) determined in section 2.1 of this Appendix.

5. Determine the Total Facility Share for each Registered Facility

5.1. Determine the total share of Contingency Reserve Lower costs for each Facility f in the set of Facilities(DI) as follows:

$$\text{FacilityCLShare}(f,DI) = \text{FacilityRunwayShare}(f,DI) + ((1 - \text{TotalRunwayShare}(DI)) * \text{FacilityThresholdShare}(f,DI))$$

where:

(a) FacilityRunwayShare(f,DI) is as determined in sections 3.2 and 3.3 of this Appendix;

(b) TotalRunwayShare(DI) is determined in section 3.4 of this Appendix; and

(b) FacilityThresholdShare(f,DI) is calculated in accordance with section 4.2 of this Appendix.

Explanatory Note

Section 6 calculates the Network Contingency runway shares for Registered Facilities deemed to be causers of Network Contingencies. Denote:

- ApplicableNetworkContingencies(DI) are contingencies from whom cost are to be recovered in Dispatch Interval DI; and
- CauserFacilities(nc, DI) is the set of Registered Facilities nc that are the causers of each ApplicableNetworkContingencies(DI).

Each Facility nc that is a member of CauserFacilities(nc,DI) is ranked in ascending order of their Facility Risk value and is allocated a runway share based on that rank for that Network Contingency. Membership of CauserFacilities(nc,DI) is restricted to Registered Facilities because behind-the meter components serving Intermittent Loads are not relevant to network risks, which are set based on the net generation lost if a network trip occurs.

6. Network Contingency Shares

6.1. Determine NetworkContingencies(DI) as the set of Network Contingencies that are considered when setting the Contingency Reserve Lower requirement under clause 7.2.4 for Dispatch Interval DI.

6.2. For each member in NetworkContingencies(DI), nc, calculate NetworkRisk(nc,DI) in Dispatch Interval DI as follows:

(a) NetworkRisk(nc,DI) equals the Network Risk in Dispatch Interval DI as published by AEMO in clause 7.13.1E(g)(ii)(1), if nc sets the Largest Credible Load Contingency in Dispatch Interval DI; and

(b) NetworkRisk(nc,DI) = 0 otherwise.

6.3. Determine ApplicableNetworkContingencies(DI) as the members nc of NetworkContingencies(DI) for which NetworkRisk(nc,DI) > 0MW.

6.4. Calculate m(DI), as the number of members of ApplicableNetworkContingencies(DI).

6.5. For each member in ApplicableNetworkContingencies(DI), nc, perform the following steps:

(a) from the information published under clause 7.13.1E(g)(ii), determine the set of Registered Facilities whose Facility Risks are included in the Network Risk associated with Network Contingency nc as CauserFacilities(nc,DI), where CauserFacilities(nc,DI) is a subset of the union of ApplicableFacilities(DI) as defined in section 2.5 of this Appendix;

(b) rank the Registered Facilities in CauserFacilities(nc,DI) in the ascending order of the value of FacilityRisk(f,DI) as determined in section 3.1 of this Appendix:

i. if two or more Registered Facilities in CauserFacilities(nc,DI) have the same FacilityRisk(f,DI) value in Dispatch Interval DI, AEMO must rank those Registered Facilities in ascending alphabetical order of the name of the Registered Facility recorded by AEMO in accordance with clause 2.34B.1;

ii. the Registered Facility with the lowest FacilityRisk(f,DI) value will have rank(nc,f,DI) = 1;

iii. the Registered Facility with the highest FacilityRisk(f,DI) value will have a rank(nc,f,DI) = n_{nc}, where n_{nc} is the number of Registered Facilities in the set CauserFacilities(nc,DI); and

(c) determine for each Registered Facility f, which is a member of CauserFacilities(nc,DI), its runway share of the Network Contingency component (attributable to Network Contingency nc) of procuring Contingency Reserve Lower in Dispatch Interval DI as follows:

$$\text{NetworkRunwayShare}(nc,f,DI) = \sum_{i=1}^{\text{Rank}(nc,f,DI)} \frac{\text{NetworkMW}(nc,i,DI) - \text{NetworkMW}(nc,i-1,DI)}{\text{NetworkMW}(nc,n_{nc}+1-i)}$$

where:

i. NetworkMW(nc,i,DI) is the FacilityRisk(x,DI) value of Registered Facility x with rank(nc,x,DI) = i in Dispatch Interval DI, where:

1. for i=1, NetworkMW(nc,0,DI) = 0;

2. x ∈ CauserFacilities(nc,DI);

ii. Rank(nc,f,DI) is the rank of Registered Facility f ∈ CauserFacilities(nc,DI) as determined in section 6.5(b) of this Appendix; and

iii. n_{nc} is the number of Registered Facilities in the set CauserFacilities(nc,DI).

Explanatory Note

Section 7 divides the cost of Contingency Reserve Lower services into the components attributable to:

- Network Contingencies (NetworkComponent(DI)); and
- Facility Contingencies (FacilityComponent(DI)).

7. Cost Shares

7.1. Calculate the cost shares associated with:

(a) the Network Contingency component of Contingency Reserve Lower costs in Dispatch Interval DI as follows:

$$\text{NetworkComponent(DI)} = \frac{\text{Max}(0, \text{LargestNetworkRisk(DI)} - \text{LargestFacilityRisk(DI)})}{\text{LargestNetworkRisk(DI)}}$$

where:

- LargestNetworkRisk(DI) is the Largest Network Risk in Dispatch Interval DI; and**
- LargestFacilityRisk(DI) is the FacilityRisk(f,DI) of Facility f in Dispatch Interval DI that has the rank(f,DI) = n; and**

(b) the Facility Contingency component of Contingency Reserve Lower costs in Dispatch Interval DI as follows:

$$\text{FacilityComponent(DI)} = 1 - \text{NetworkComponent(DI)}.$$

Explanatory Note

Section 7.2 accounts for multiple Network Contingencies being tied as the Largest Credible Supply Contingency by dividing each causer Registered Facility's network runway share (for a given Network Contingency) by the total number of tied Network Contingencies.

7.2. Determine the cost share of procuring the Network Contingency component of Contingency Reserve Lower costs for each Registered Facility f associated with each Applicable Network Contingency nc in Dispatch Interval DI as follows:

$$\text{NetworkShare(nc, f, DI)} = \frac{1}{m(\text{DI})} \times \text{NetworkRunwayShare(nc, f, DI)}$$

where:

- m(DI) is determined in section 6.4 of this Appendix; and**
- NetworkRunwayShare(nc, f, DI) is determined in section 6.5(c) of this Appendix.**

Explanatory Note

Participant cost shares (ParticipantCLShare(p,DI)) are calculated in section 7.3 considering:

- the Facility Component and Network Component ratios calculated in section 5.1 of this Appendix; and
- the facility runway shares and the network runway shares calculated in sections 3 of this Appendix.

7.3. Determine Market Participant p's total runway share of procuring Contingency Reserve Lower services in Dispatch Interval DI as follows:

$$\text{ParticipantCLShare}(p,DI) = \text{FacilityComponentShare}(p,DI) + \text{NetworkComponentShare}(p,DI)$$

where:

(a) FacilityComponentShare(p,DI) is calculated as:

$$\text{FacilityComponentShare}(p,DI) = \text{FacilityComponent}(DI) \times \frac{\sum_{f \in \text{ApplicableFacilities}(p,DI)} \text{FacilityCLShare}(f, DI)}{\sum_{f \in \text{ApplicableFacilities}(p,DI)} \text{FacilityCLShare}(f, DI)}$$

where:

- i. FacilityComponent(DI) is calculated in section 7.1(b) of this Appendix;
- ii. ApplicableFacilities(p,DI) is a subset of ApplicableFacilities(DI) identified in section 2.5 of this Appendix, which are Facilities registered to Market Participant p and electricity consuming units in ApplicableFacilities(DI) that have net loads for which Market Participant p is responsible;
- iii. FacilityCLShare(f,DI) is Facility f's share of the Facility Contingency component of procuring Contingency Reserve Lower services in Dispatch Interval DI as calculated in section 3.6 of this Appendix; and

(b) NetworkComponentShare(p,DI) is calculated as follows:

$$\text{NetworkComponentShare}(p,DI) = \text{NetworkComponent}(DI) \times \frac{\sum_{nc \in \text{ApplicableNetworkContingencies}(DI)} \sum_{f \in \text{CauserFacilities}(nc,p,DI)} \text{NetworkShare}(nc,f,DI)}{\sum_{nc \in \text{ApplicableNetworkContingencies}(DI)} \sum_{f \in \text{CauserFacilities}(nc,p,DI)} \text{NetworkShare}(nc,f,DI)}$$

where:

- i. NetworkComponent(DI) is calculated in section 7.1(a) of this Appendix;
- ii. ApplicableNetworkContingencies(DI) is the subset of Network Contingencies determined in section 6.3 of this Appendix;
- iii. CauserFacilities(nc,p,DI) is a subset of CauserFacilities(nc,DI) identified in section 6.5(a) of this Appendix, which are Registered Facilities in CauserFacilities(nc,DI) registered to Market Participant p; and
- iv. NetworkShare(nc,f,DI) is Registered Facility f's cost share associated with Network Contingency nc in Dispatch Interval DI as calculated in section 7.2 of this Appendix.