

# Market Surveillance Data Catalogue and AEMO Compliance Monitoring Requirements List

## Version 2. Effective from 20 November 2024

### Market Surveillance Data Catalogue Requirements List (ref. clause 2.16.2A)

#### General Notes

In these requirements:

- “from RCC yyyy” means the information is required for Reserve Capacity Cycles starting with the yyyy Reserve Capacity Cycle;
- “up to RCC yyyy” means the information is required for Reserve Capacity Cycles up to (and including) the yyyy Reserve Capacity Cycle;
- “from dd/mm/yyyy” means the information is required for Trading Days starting with the Trading Day commencing at 8:00 AM on dd/mm/yyyy; and
- “up to dd/mm/yyyy” means the information is required for Trading Days up to (and including) the Trading Day commencing at 8:00 AM on dd/mm/yyyy.

## 1 Registration and Participant/Facility Attributes

### 1.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
1.1.1	Rule Participant details	<p>For each Rule Participant, the following details recorded in AEMO’s registration computer system, including the history of each change to the details recorded:</p> <ul style="list-style-type: none"><li>• Participant Id</li><li>• Participant name</li><li>• Contact details</li><li>• ABN</li><li>• Name of authorised person</li></ul>	2.28, 2.31, 2.32, 2.34, Appendix 1(a)	The current version of the details recorded for each Rule Participant should be easily identifiable.

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Registration status (registered/de-registered)</li> <li>• Maximum consumption quantity (for Market Participants) (Appendix 1(a))</li> </ul>		
1.1.2	Facility details	<p>For each Registered Facility (and, where applicable, each Facility that has not yet been registered but has been assigned Capacity Credits), the following details recorded in AEMO's registration computer system, including the history of each change to the details recorded:</p> <ul style="list-style-type: none"> <li>• Facility Id</li> <li>• Facility name</li> <li>• Facility Class (or indicative Facility Class, where applicable)</li> <li>• Facility Technology Type(s) (or indicative Facility Technology Type(s), where applicable)</li> <li>• Registration status (registered/de-registered/not yet registered)</li> <li>• Rule Participant</li> <li>• Date the Facility was deemed to be in Commercial Operation</li> <li>• Applicable Tolerance Range or Facility Tolerance Range (for Scheduled Facilities and Semi-Scheduled Facilities)</li> <li>• Transmission Loss Factor and Distribution Loss Factor Codes and values (for Scheduled Facilities, Semi-Scheduled Facilities and Non-Scheduled Facilities)</li> <li>• Location details</li> <li>• Standing Data, including any FCESS Accreditation Parameters</li> </ul>	2.29, 2.31, 2.34, 2.34A, Appendix 1(b)-(f) and (h)	The current version of the details recorded for each Facility should be easily identifiable.

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Whether the Facility receives as-generated equivalent targets in its Dispatch Instructions (for Scheduled Facilities and Semi-Scheduled Facilities)</li> <li>• Whether the Facility is a Separate Facility</li> </ul>		
1.1.3	RoCoF Ride-Through Capability	For each Facility accredited for RoCoF Ride-Through Capability, a history of the accredited RoCoF Ride-Through Capability values over time.	2.34A, Appendix 1(i)	
1.1.4	Associated Loads	<p>For each Demand Side Programme or Interruptible Load, the following details of each Associated Load over time:</p> <ul style="list-style-type: none"> <li>• NMI</li> <li>• Effective start and end datetimes</li> <li>• Minimum consumption MW</li> </ul>	2.29.5-2.29.5M	
1.1.5	Intermittent Load details	<p>For each Intermittent Load arrangement, the following details, including the history of each change to the details recorded:</p> <ul style="list-style-type: none"> <li>• Relevant NMIs</li> <li>• Whether the Intermittent Load is 'grandfathered' under clause 1.48.2</li> <li>• Associated Scheduled Facility or Semi-Scheduled Facility</li> <li>• Responsible Market Participant</li> <li>• Standing Data required under Appendix 1(g)</li> <li>• The maximum capacity specified in clause 2.30B.3(a)</li> <li>• The information required under clause 2.30B.3(b) (where applicable)</li> <li>• The Nominated Excess Capacity (2.30B.3(e))</li> <li>• Whether the Market Participant has provided adequate evidence to AEMO to reduce its</li> </ul>	2.30B, Appendix 1(g), 4.28.8	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		Contingency Reserve Raise obligations under clause 2.30B.3(g) <ul style="list-style-type: none"> <li>• The Contract Maximum Demand associated with the Facility</li> <li>• The NL and MSG values referred to in clause 2.30B.10 (where applicable)</li> </ul>		

### Notes on Requirements:

Version History Requirements:

- Full history of the information over time.

Period Required:

- From New WEM Commencement Day (assuming that pre-NWCD registration information is also available under section 18).

Update Frequency:

- No later than noon on the next Business Day after the day on which the relevant information was created/updated in AEMO's registration computer system.

## 1.2 Non-Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
1.2.1	Facility aggregation applications	Notification of any application received by AEMO under clause 2.30.1 to allow the registration of an Aggregated Facility, including the identity of the aggregating party, details of the Facilities proposed to be aggregated, and AEMO's decision on the application.	2.30	

## Notes on Requirements:

### Version History Requirements:

- Separate notifications for each relevant event in the process, unless multiple events occur on a single day.

### Period Required:

- From New WEM Commencement Day.

### Update Frequency:

- No later than noon on the next Business Day after the day on which the relevant event occurs.

## 1.3 Other Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
1.3.1	DER Register	Access to the DER Register	3.24.1	

## 2 Prudential Requirements, Reserve Capacity Security and DSM Reserve Capacity Security

### 2.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
2.1.1	Prudential Snapshot	<p>For each Market Participant, for each day, a snapshot of the following prudential information, taken after the incorporation of any prepayments or invoice payments made on that day:</p> <ul style="list-style-type: none"> <li>total prepayments, total invoices not paid, Cumulative Estimated Exposure, Outstanding Amount, Credit Support held, Credit Limit, Trading Limit and Trading Margin.</li> </ul>	2.37.1, 2.37.2, 2.38.1, 2.38.2, 2.39.1, 2.40.1, 2.41.1.	The 'current' records (i.e. for the most recent day for which records have been generated) should be easily identifiable.

#### Notes on Requirements:

##### Version History Requirements:

- Final version of the information produced by AEMO for each day for each Market Participant.

##### Period Required:

- All days from New WEM Commencement Day.

##### Update Frequency:

- No later than noon on the next Business Day after the end of the relevant day.

### 2.2 Non-Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
2.2.1	Notification of Margin Call	Notification of each Margin Call issued by AEMO to a Market Participant (including date/time issued, Market	2.42.1, 2.42.4, 2.42.5, 2.42.6.	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		Participant and Margin Call amount), and the subsequent outcome of the Margin Call (e.g. cancelled by AEMO, Market Participant complies, Market Participant fails to comply by the specified deadline).		

**Notes on Requirements:**

Version History Requirements:

- Separate notifications for each relevant event in the process, unless multiple events occur on a single day.

Period Required:

- All Margin Calls from New WEM Commencement Day.

Update Frequency:

- No later than noon on the next Business Day after the day on which the relevant event occurs.

### 3 Outage Management, Outage quantities and Commissioning Tests

#### 3.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
3.1.1	Outage Plans	For each Outage Plan submitted to AEMO, all the information recorded in AEMO's Outage computer system, including the history of each change to the status or details of the Outage Plan, and the records of each Outage Evaluation and the reasons for each Outage Evaluation and assessment recorded in accordance with clause 3.18E.1(d).	3.18B, 3.18C, 3.18D, 3.18E.	The current version of each Outage Plan should be easily identifiable.
3.1.2	Forced Outages	For each Forced Outage reported to AEMO by a Market Participant or Network Operator, all the information recorded in AEMO's Outage computer system, including the history of each change to the status or details of the Forced Outage.	3.21.2- 3.21.5	The current version of each Forced Outage should be easily identifiable.
3.1.3	CAPO/CAFO by SSC and Dispatch Interval	For each Separately Certified Component of a Registered Facility, the Capacity Adjusted Planned Outage Quantity and Capacity Adjusted Forced Outage Quantity for each Dispatch Interval	3.21.7, 3.21.8	
3.1.4	CAPO/CAFO by SSC and Trading Interval	For each Separately Certified Component of a Registered Facility, the Capacity Adjusted Planned Outage Quantity and Capacity Adjusted Forced Outage Quantity for each Trading Interval	3.21.7A, 3.21.8A	
3.1.5	CAPO/CAFO by Facility and Dispatch Interval	For each Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility, the Capacity Adjusted Planned Outage Quantity and Capacity Adjusted Forced Outage Quantity for each Dispatch Interval	3.21.7C, 3.21.8C	
3.1.6	CAPO/CAFO by Facility and Trading Interval	For each Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility, the Capacity Adjusted Planned	3.21.7B, 3.21.8B	



Row Id	Short Description	Long Description	Relevant Clauses	Comments
		Outage Quantity and Capacity Adjusted Forced Outage Quantity for each Trading Interval		
3.1.7	Refund Exempt Planned Outage Counts	The Refund Exempt Planned Outage Count for each Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility, for each Trading Day which AEMO has settled under Chapter 9.	3.22.3, Glossary definition	

### Notes on Requirements:

#### Version History Requirements:

- Full history of each Outage Plan and Forced Outage over time. Only the current version is required for CAPO/CAFO values and Refund Exempt Planned Outage Counts.

#### Period Required:

- Outage Plan, Forced Outage and CAPO/CAFO details from New WEM Commencement Day. Refund Exempt Planned Outage Counts starting from the last 1000 Trading Days before New WEM Commencement Day.

#### Update Frequency:

- Outage Plan and Forced Outage details – no later than noon on the next Business Day after the day on which the relevant information was created/updated in AEMO's Outage computer system.
- CAPO/CAFO and Refund Exempt Planned Outage Counts – refreshed no later than noon on the next Business Day after the day on which relevant information is determined/refreshed for use in settlement calculations.

## 3.2 Non-Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
3.2.1	Non-compliance with Outage Plan rejection	A record of each notification to AEMO under clause 3.18E.16 that a Market Participant or Network Operator	3.18E.16	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		cannot comply with clause 3.18E.14 (i.e. to comply with a decision by AEMO not to approve or to reject an Outage Plan), including the time of the notification and the reason provided by the Market Participant or Network Operator.		
3.2.2	Non-compliance with Outage Recall Direction	A record of each notification to AEMO under clause 3.20.4 that a Market Participant or Network Operator cannot comply with an Outage Recall Direction issued by AEMO under clause 3.20.1, including the time of the notification and the reason provided by the Market Participant or Network Operator.	3.20.4	

**Notes on Requirements:**

Version History Requirements:

- N/A

Period Required:

- All notifications from New WEM Commencement Day.

Update Frequency:

- No later than noon on the next Business Day after the day on which the relevant event occurs.

## 4 Power System Security and Reliability

NOTE: preliminary requirements only – to be reviewed when the relevant AEMO resources are available.

### 4.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
4.1.1	SCADA System Frequency	4-second SCADA readings of the system frequency for the SWIS covering each period in which the system frequency falls outside the Normal Operating Frequency Band.	3B, Appendix 13	
4.1.2	Operating State summary	<p>A history (including start and end date/times, the reason for AEMO's determination and a summary of any specific actions taken by AEMO) of periods when AEMO determines that the SWIS:</p> <ul style="list-style-type: none"> <li>• is not in a Reliable Operating State;</li> <li>• is not in a Satisfactory Operating State;</li> <li>• is not in a Secure Operating State; or</li> <li>• is in an Emergency Operating State.</li> </ul>	3.3, 3.4, 3.5	
4.1.3	Clause 3.4.5A records	The information recorded by AEMO under clause 3.4.5A in relation to directions issued under clauses 3.4.4(d), 3.4.4(e) or 3.4.4(f) or actions taken under clause 3.4.5.	3.4.5A	
4.1.4	Clause 3.5.5A records	The information recorded by AEMO under clause 3.5.5A in relation to directions issued under clauses 3.5.5(a) or 3.5.5(b) or actions taken under clause 3.5.5(c).	3.5.5A	

#### Notes on Requirements:

Version History Requirements:

- N/A

Period Required:

- From New WEM Commencement Day.

Update Frequency:

- SCADA System Frequency - no later than noon on the next Business Day after the end of the relevant day.
- Operating State Summary – no later than 5 Business Days after the end of a reportable period.

## 4.2 Non-Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
4.2.1	Separation Events	Details of any Separation Event, including the period over which the event occurred, the cause(s) of the event, the Island created and a summary of the actual frequency outcomes against the Frequency Operating Standards.	3B	
4.2.2	Notification of non-compliance with a direction	Details of any information provided by a Rule Participant under clause 3.4.8 where it cannot comply with a direction issued by AEMO	3.4.8	

### Notes on Requirements:

Version History Requirements:

- N/A

Period Required:

- From New WEM Commencement Day.

Update Frequency:

- Separation Events - no later than noon on the next Business Day after the end of the event.
- Notification of non-compliance with a direction – no later than noon on the next Business Day after the day on which the information was provided.

## 5 SESSM, NCESS, System Restart and Supplementary Capacity

### 5.1 Database Requirements

None identified.

### 5.2 Non-Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
5.2.1	SESSM Submissions	Each SESSM Submission received by AEMO in response to a call for SESSM Submissions under clause 3.15A.17.	3.15A	
5.2.2	AEMO NCESS expressions of interest	Each NCESS expression of interest received by AEMO in response to a call for expressions of interest published by AEMO under clause 3.11B.2	3.11B	
5.2.3	AEMO NCESS Submissions	Each NCESS Submission received by AEMO in response to a call for NCESS Submissions published under clause 3.11B.6	3.11B	
5.2.4	AEMO NCESS Contract	Each NCESS Contract implemented by AEMO	3.11B	
5.2.5	WP NCESS Contract details	The NCESS Contract information provided by a Network Operator to AEMO under clauses 5.3A.1 and 5.3A.2	5.3A.1, 5.3A.2	
5.2.6	System Restart Service submissions	Each submission received by AEMO in response to a call for submissions for the provision of System Restart Service published under clause 3.7.28.	3.7	
5.2.7	System Restart Service Contracts	Each System Restart Service Contract implemented by AEMO	3.7	
5.2.8	Supplementary Capacity expressions of interest	Each response received by AEMO in response to a call for expressions of interest for supplementary capacity published under clause 4.24.1A.	4.24	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
5.2.9	Supplementary Capacity tenders	Each tender received by AEMO in response to a call for tenders for supplementary capacity advertised under clause 4.24.6.	4.24	
5.2.10	Supplementary Capacity Contracts	Each Supplementary Capacity Contract implemented by AEMO.	4.24	
5.2.11	Master Contract List	Excel spreadsheet that lists, for each System Restart Contract, NCESS Contract settled by AEMO and Supplementary Capacity Contract: <ul style="list-style-type: none"> <li>• the type of contract (System Restart, NCESS or Supplementary Capacity);</li> <li>• the contract Market Participant/counterparty;</li> <li>• the effective start and end dts of the contract; and</li> <li>• contract identifier(s) that can be used to identify the applicable contract documentation or extract the relevant settlement details for the contract.</li> </ul>	3.7, 3.11B, 4.24	

#### Notes on Requirements:

##### Version History Requirements:

- N/A

##### Period Required:

- From New WEM Commencement Day.

##### Update Frequency:

- SESSM Submissions – within 20 Business Days of the deadline for lodging the submissions
- AEMO NCESS expressions of interest – within 2 Business Days of the closing date for expressions of interest specified under clause 3.11B.3(a)
- AEMO NCESS Submissions – within 2 Business Days of the closing date for submissions specified under clause 3.11B.6A(a)
- AEMO NCESS Contracts – within 2 Business Days of AEMO's publication of the relevant NCESS Contract details on the WEM Website.

- WP NCESS Contract details – within 5 Business Days of AEMO’s receipt of the information.
- System Restart Service submissions – within 2 Business Days of the closing date for submissions specified under clause 3.7.29(a).
- System Restart Service Contracts – within 2 Business Days of AEMO’s notifying the relevant Market Participant under clause 3.7.36(a).
- Supplementary Capacity expressions of interest – within 2 Business Days of the closing date for expressions of interest specified under clause 4.24.1B(a).
- Supplementary Capacity tenders – within 2 Business Days of the closing date for tenders specified under clause 4.24.6(a).
- Supplementary Capacity Contracts – within 2 Business Days of AEMO implementing the contract.
- Master Contract List – within 2 Business Days of AEMO implementing a contract (or making any other change affecting the contents of the list).

## 6 Reserve Capacity Mechanism – supporting processes

### 6.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
6.1.1	Reserve Capacity Cycle Parameters	<p>For each Reserve Capacity Cycle, the following values:</p> <ul style="list-style-type: none"> <li>• Benchmark Reserve Capacity Price</li> <li>• 10% POE demand forecast corresponding to the Reserve Capacity Requirement (4.6.2)</li> <li>• Reserve Capacity Price</li> <li>• Estimate of the Reserve Capacity required to cover the forecast cumulative needs of Intermittent Loads used to determine the Reserve Capacity Requirement (4.5.2A)</li> <li>• The quantity specified in clause 4.5.9(a)(i) used to determine the Reserve Capacity Requirement</li> <li>• The quantity specified in clause 4.5.9(a)(ii) used to determine the Reserve Capacity Requirement</li> <li>• Reserve Capacity Requirement (4.6.1)</li> <li>• Required Availability Class 1 capacity(4.5.12(b)) (up to 2023 RCC)</li> <li>• Availability Class 2 capacity (4.5.12(c)) (up to 2023 RCC)</li> <li>• The CPI used in the determination of Trans_Ceiling and Trans_Floor, if a Transitional Reserve Capacity Cycle (4.29.1C)</li> <li>• Trans_Ceiling and Trans_Floor, if a Transitional Reserve Capacity Cycle (4.29.1C)</li> <li>• The annual equivalent of the Facility Monthly Reserve Capacity Price for a Transitional Facility, if a Transitional Reserve Capacity Cycle (4.29.1B, 4.29.1CA(b))</li> </ul>	See Long Description	



Row Id	Short Description	Long Description	Relevant Clauses	Comments
6.1.2	Reserve Capacity Cycle Dates	<p>For each Reserve Capacity Cycle, the following key dates:</p> <ul style="list-style-type: none"> <li>• Window for RCM Expressions of Interest opens (4.1.4)</li> <li>• Window for RCM Expressions of Interest closes (4.1.5)</li> <li>• Publication of Responses to Request for Expressions of Interest (4.1.6)</li> <li>• Window for applications for Certified Reserve Capacity opens (4.1.7)</li> <li>• Window for applications for Certified Reserve Capacity closes (4.1.11)</li> <li>• Publication of Electricity Statement of Opportunities (4.1.8)</li> <li>• Publication of the Reserve Capacity Information Pack (4.1.10)</li> <li>• Notification of Certified Reserve Capacity assignments (4.1.12)</li> <li>• Deadline for provision of Reserve Capacity Security (4.1.13)</li> <li>• Bilateral Trade Declaration window closes (4.1.14)</li> <li>• Confirmation of Bilateral Trade quantities (4.1.15)</li> <li>• Publication of Certified Reserve Capacity (4.1.15A)</li> <li>• Assignment/publication of Capacity Credits and NAQ (4.1.16A)</li> <li>• Deadline for applications for recalculation of Reserve Capacity Security (4.1.21)</li> <li>• Deadline for notification of component level Capacity Credit associations (4.1.21A)</li> <li>• Publication of component level Capacity Credit associations (4.1.22)</li> <li>• Capacity Year Start Date</li> <li>• Capacity Year End Date</li> </ul>	See Long Description	

### Notes on Requirements:

Version History Requirements:

- Reserve Capacity Cycle Parameters and Dates – current version only

Period Required:

- For each Reserve Capacity Cycle starting from the 2022 Reserve Capacity Cycle.

Update Frequency:

- Reserve Capacity Cycle Parameters and Dates – refreshed once each Business Day to reflect any new information or changes to existing information for a Reserve Capacity Cycle.

## 6.2 Non-Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
6.2.1	RCM Expressions of Interest	Each Expression of Interest received by AEMO in response to a Request for Expressions of Interest published by AEMO under clause 4.2.4.	4.2, 4.4.	

### Notes on Requirements:

Version History Requirements:

- N/A

Period Required:

- From New WEM Commencement Day.

Update Frequency:

- RCM Expressions of Interest – within 2 Business Days of the closing date specified under clause 4.3.1(k) for the Reserve Capacity Cycle.



## 7 Reserve Capacity Mechanism – Certification and Bilateral Trade Declaration

### 7.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
7.1.1	CRC Application	<p>For each application for Certified Reserve Capacity for a Reserve Capacity Cycle, the following information:</p> <ul style="list-style-type: none"> <li>• the Market Participant making the application</li> <li>• the Reserve Capacity Cycle to which the application relates</li> <li>• the relevant Facility/Facility Upgrade</li> <li>• the applicable indicative Facility Class and Facility Technology Type(s)</li> <li>• The data specified in clause 4.10.1 provided by the applicant (4.9.3)</li> <li>• The Planned Outage rate and Forced Outage rate determined by AEMO for the purposes of its decisions under clause 4.11.1(h)</li> <li>• The quantity of Certified Reserve Capacity assigned to each component or upgrade, and to the Facility as a whole (4.9.9)</li> <li>• The Relevant Level, if applicable (4.11.2)</li> </ul>	See Long Description	Likely to require multiple tables to account for different values being stored at the Facility, component and component upgrade levels.
7.1.2	CRC Bilateral Declaration	<p>For each Reserve Capacity Cycle, for each Facility and component of a Facility assigned Certified Reserve Capacity, the following values:</p> <ul style="list-style-type: none"> <li>• The amount of Reserve Capacity intended to be traded bilaterally (4.14.1(c))</li> <li>• The amount of Reserve Capacity that will not be made available to the market (4.14.1(d))</li> </ul>	See Long Description	Likely to require multiple tables to account for different values being stored at the Facility, component and component upgrade levels.
7.1.3	CRC NAQ Parameters	For each Reserve Capacity Cycle, for each Facility assigned Certified Reserve Capacity, the following values:	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• The Availability Class assigned to the Certified Reserve Capacity (4.11.4)</li> <li>• Whether the Facility is a Candidate Fixed Price Facility (4.14.1B)</li> <li>• Whether the Facility is considered by AEMO to be in Commercial Operation</li> <li>• The Minimum Capacity Credits Quantity (where applicable) (4.14.1D)</li> </ul>		
7.1.4	Relevant Level Methodology inputs	<p>For each Reserve Capacity Cycle, for each Facility/component certified using the Relevant Level Methodology:</p> <ul style="list-style-type: none"> <li>• the Full Operation Date (Appendix 9, A2(b))</li> <li>• the contribution to CF Generation (as specified under Appending 9, Step 7) of the Candidate Facility for each Trading Interval in each 12 month period identified in Appendix 9 Step 1(b)</li> <li>• the sent out generation for each Candidate Facility and in Trading Interval in each 12 month period identified in Appendix 9 Step 1(c), that was used to determine CF_Generation for that Trading Interval, adjusted as required under Appendix 9 Step 9A (Step 9(b))</li> <li>• the sent out generation estimates determined for each Trading Interval in the period identified in Appendix 9 Step 1(a) that falls before 8:00 AM on the Full Operation Date (Appendix 9, Step 10)</li> </ul>	See Long Description	The intent of the sent out generation requirements is to have access to a five year “unconstrained” sent out generation profile (based on expert-provided estimates or adjusted actual values as applicable) for each Candidate Facility, for each Reserve Capacity Cycle, based on the values used to determine Relevant Levels.

**Notes on Requirements:**

Version History Requirements:

- Current versions only

Period Required:

- For each Reserve Capacity Cycle starting from the 2022 Reserve Capacity Cycle.

Update Frequency:

- Refreshed once each Business Day to reflect any new information or changes to existing information for a Reserve Capacity Cycle.

## 7.2 Non-Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
7.2.1	Early CRC	<p>Details of any application received by AEMO for Early Certified Reserve Capacity, including (as the relevant information becomes available over time):</p> <ul style="list-style-type: none"> <li>• identity of the Market Participant making the application</li> <li>• the Reserve Capacity Cycle/Capacity Year to which the application relates</li> <li>• the relevant Facility/Facility Upgrade</li> <li>• the applicable indicative Facility Class and Facility Technology Type(s)</li> <li>• whether the Facility is expected to be classified as a Network Augmentation Funding Facility (4.28C.5)</li> <li>• the information specified in section 4.10 that is provided by the applicant (4.28C.5)</li> <li>• whether the application was rejected by AEMO (4.28.2B)</li> <li>• if not rejected, the quantity of Early Certified Reserve Capacity assigned to the Facility (4.28C.7)</li> <li>• if not rejected, any Indicative Network Access Quantity determined for the Facility (4.28C.7A, 4.28C.7AA)</li> </ul>	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
7.2.2	Conditional CRC	Details of any application received by AEMO for Conditional Certified Reserve Capacity, including (as the relevant information becomes available over time): <ul style="list-style-type: none"> <li>• identify of the Market Participant making the application</li> <li>• the Reserve Capacity Cycle to which the application relates</li> <li>• the relevant Facility/Facility Upgrade</li> <li>• the applicable indicative Facility Class and Facility Technology Type(s)</li> <li>• the information specified in clause 4.10.1 that is provided by the applicant</li> <li>• the quantity of Conditional Certified Reserve Capacity assigned to the Facility (4.9.8(b))</li> </ul>	See Long Description	

**Notes on Requirements:**

Version History Requirements:

- N/A

Period Required:

- From New WEM Commencement Day.

Update Frequency:

- Early CRC and Conditional CRC – separate notifications for each of the relevant steps in the process, within 2 Business Days of the relevant information becoming available to AEMO.

## 8 Reserve Capacity Mechanism – Network Access Quantities, Capacity Credits and Reserve Capacity Prices

### 8.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
8.1.1	Network Access Quantities	<p>For each Reserve Capacity Cycle, for each relevant Facility/Facility Upgrade:</p> <ul style="list-style-type: none"> <li>the Network Access Quantity determined using the Network Access Quantity Model</li> <li>the Highest Network Access Quantity</li> <li>(for the 2022 RCC) the Initial Network Access Quantity (4.1A.2)</li> <li>CC Uplift Quantity</li> </ul>	4.1A, 4.15, Appendix 3	
8.1.2	Capacity Credits – Facility	For each Facility that has been assigned Capacity Credits, the number of Capacity Credits assigned to the Facility over time, with comments indicating the reason for each change to the number of Capacity Credits assigned		
8.1.3	Capacity Credits – component	For each component of a Facility that has been assigned Capacity Credits, the number of Capacity Credits assigned to the component over time, with comments indicating the reason for each change to the number of Capacity Credits assigned.		

#### Notes on Requirements:

Version History Requirements:

- Current versions only.

Period Required:

- Network Access Quantities – from the 2022 Reserve Capacity Cycle.



- Capacity Credits Facility – from the start of the WEM
- Capacity Credits component – from the 2022 Reserve Capacity Cycle

Update Frequency:

- Refreshed once each Business Day to reflect any new information or changes to existing information.

## 8.2 Non-Database Requirements

None identified.

## 9 Reserve Capacity Mechanism – Reserve Capacity Performance Monitoring and Testing

### 9.1 Database Requirements

None Identified.

### 9.2 Non-Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
9.1.1	New Facility delays	<p>Notification of where AEMO becomes aware that a new Facility (or a Facility Upgrade) with Capacity Credits will not be ready in time to meet its Reserve Capacity Obligations, including:</p> <ul style="list-style-type: none"><li>• the relevant Market Participant and Facility</li><li>• the number of Capacity Credits held by the Facility for the Relevant Reserve Capacity Cycle</li><li>• the reasons for the delay (based on the information available to AEMO)</li><li>• the revised Key Project Date for when the Facility will have completed all Commissioning Tests and be capable of meeting its Reserve Capacity Obligations in full.</li></ul>	4.27	

#### Notes on Requirements:

Version History Requirements:

- Notifications to be provided when AEMO first becomes aware that the Facility will be late, and on any subsequent occurrence of the relevant Key Project Date being further extended.

Period Required:

- From New WEM Commencement Day.

Update Frequency:

- Within 2 Business Days of the revision of the Key Project Date.

## 10 Reserve Capacity Mechanism – Reserve Capacity Obligations

### 10.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
10.1.1	RCOQ – Facility/ Dispatch Interval	For each Dispatch Interval, for each Scheduled Facility, Semi-Scheduled Facility or Demand Side Programme, the Reserve Capacity Obligation Quantity.	4.12.4	
10.1.2	RCOQ – SSC/Dispatch Interval	For each Dispatch Interval, for each Separately Certified Component that is a Non-Intermittent Generating System or an Electric Storage Resource, the following values: <ul style="list-style-type: none"><li>• DefRCOQ(c,DI)</li><li>• Reserve Capacity Obligation Quantity</li></ul>	3.21.7(b)(iv), 4.12.5	
10.1.3	RCOQ – Facility/ Trading Interval	For each Trading Interval, for each Scheduled Facility, Semi-Scheduled Facility or Demand Side Programme, the Reserve Capacity Obligation Quantity.	4.12.6	

#### Notes on Requirements:

##### Version History Requirements:

- Only the current version of the information is required.

##### Period Required:

- From New WEM Commencement Day.

##### Update Frequency:

- Refreshed no later than noon on the next Business Day after the day on which the relevant information is determined/refreshed for use in settlement calculations.

### 10.2 Non-Database Requirements

None identified.

## 11 Reserve Capacity Mechanism – Funding Reserve Capacity

### 11.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
11.1.1	Indicative Individual Reserve Capacity Requirement	For each Trading Month, for each Market Participant, the Indicative Individual Reserve Capacity Requirement.	4.28.6	
11.1.2	Individual Reserve Capacity Requirement	For each Trading Month, for each Market Participant, the following values: <ul style="list-style-type: none"> <li>Individual Reserve Capacity Requirement determined under clause 4.28.7</li> <li>Each of the revised Individual Reserve Capacity Requirement values determined under clause 4.28.11A.</li> </ul>	See Long Description	
11.1.3	Capacity Credit Allocations	A history showing the following details of each Capacity Credit Allocation Submission made by a Market Participant (or generated from a standing submission): <ul style="list-style-type: none"> <li>the submitting Market Participant</li> <li>the Facility from which the Capacity Credits are to be allocated</li> <li>the Trading Day to which the allocation relates</li> <li>the Market Participant to whom the Capacity Credits are to be allocated</li> <li>the number of Capacity Credits to be allocated</li> <li>the date and time of the submission</li> <li>whether the submission was approved or rejected</li> <li>for approved submissions: <ul style="list-style-type: none"> <li>if and when the submission is withdrawn by the Market Participant</li> </ul> </li> </ul>	4.30, 4.31	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>if and when AEMO subsequently reduces the number of Capacity Credits allocated (including the revised number of Capacity Credits allocated).</li> </ul>		
11.1.4	12 Peak SWIS Trading Intervals	For each Hot Season, the 12 Peak SWIS Trading Intervals determined and published by AEMO.	4.1.23A	
11.1.5	4 Peak SWIS Trading Intervals	For each Trading Month, the 4 Peak SWIS Trading Intervals determined and published by AEMO	4.1.23B	

#### Notes on Requirements:

##### Version History Requirements:

- As specified above.

##### Period Required:

- IRCR and Capacity Credit Allocations – for all Trading Months/Days from New WEM Commencement Day.
- 12 Peak SWIS Trading Intervals and 4 Peak SWIS Trading Intervals – from the first Hot Season and the first Trading Month for which records are available.

##### Update Frequency:

- Indicative Individual Reserve Capacity Requirement - no later than noon on the next Business Day after day on which the information is provided to Market Participants.
- Individual Reserve Capacity Requirement – no later than noon on the next Business Day after the day on which the information is provided to Market Participants.
- Capacity Credit Allocations – refreshed once each Business Day to reflect any new information or updates.
- 12 Peak SWIS Trading Intervals and 4 Peak SWIS Trading Intervals – no later than noon on the next Business Day after the day on which the information is published.

## 11.2 Non-Database Requirements

None identified.

## 12 Scheduling Day and STEM

### 12.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
12.1.1	Bilateral Submission	Bilateral Submission details – net quantity of energy sold by Trading Interval, selling Market Participant and purchasing Market Participant.	6.2.2, 6.2.2A(a), 6.2.5	
12.1.2	STEM Submission – Portfolio Supply Curve	STEM Submission Portfolio Supply Curve Price-Quantity Pairs for each Trading Interval and Market Participant (including any adjustments made by AEMO under clauses 6.3B.1B or 6.3B.1C).	6.3B.1A, 6.3B.1B, 6.3B.1C, 6.3B.3(a), 6.3B.6	
12.1.3	STEM Submission – Portfolio Demand Curve	STEM Submission Portfolio Demand Curve Price-Quantity Pairs for each Trading Interval and Market Participant (including any adjustments made by AEMO under clauses 6.3B.1B or 6.3B.1C).	6.3B.1A, 6.3B.1B, 6.3B.1C, 6.3B.3(a), 6.3B.6	
12.1.4	STEM Submission – Fuel Declaration	STEM Submission Fuel Declaration details for each Trading Interval and Market Participant	6.3B.1A, 6.3B.3(a), 6.3B.6	Note that the structure/meaning of Fuel Declaration will change from New WEM Commencement Day.
12.1.5	STEM Offer	STEM Offer details determined by AEMO for each Trading Interval and Market Participant	6.9.3	
12.1.6	STEM Bid	STEM Bid details determined by AEMO for each Trading Interval and Market Participant	6.9.3	
12.1.7	STEM Results	For each Trading Interval, whether the STEM Auction was suspended, total STEM Offer quantity, total STEM Bid quantity, STEM Clearing Price and STEM Clearing Quantity	6.9.3, 6.9.7, 6.9.8	



Row Id	Short Description	Long Description	Relevant Clauses	Comments
12.1.8	Market Participant Scheduling Day Results	Net Bilateral Position, total energy quantity purchased in STEM, total energy quantity sold in STEM and Net Contract Position for each Trading Interval and Market Participant	6.9	
12.1.9	STEM Information – Demand Forecast	For each Trading Interval, the demand forecasts provided to Market Participants on the relevant Scheduling Day under clause 6.3A.2A.	6.3A.2A	
12.1.10	STEM Information - Maximum Facility Supply Capability	Maximum Facility Supply Capability for each Facility and Trading Interval as determined by AEMO on the relevant Scheduling Day	6.3A.3(d)	
12.1.11	STEM Information - Market Participant STEM limits	Maximum Supply Capability and Maximum Consumption Capability for each Market Participant and Trading Interval as determined by AEMO on the relevant Scheduling Day	6.3A.3(e), 6.3A.3(f)	
12.1.12	Electric Storage Resource Obligation Intervals	The Electric Storage Resource Obligation Intervals determined by AEMO for each Trading Day on the relevant Scheduling Day (up to 06/10/2024)	6.3.1(a)	
12.1.12a	Mid Peak Electric Storage Resource Obligation Interval	The Mid Peak Electric Storage Resource Obligation Interval determined by AEMO for each Trading Day on the relevant Scheduling Day (up to 06/10/2024)	6.3.1(a)	
12.1.12b	Peak Electric Storage Resource Obligation Intervals	The Peak Electric Storage Resource Obligation Intervals that will apply to each Electric Storage Resource, as determined by AEMO for each Trading Day on the relevant Scheduling Day (from 07/10/2024)	6.3A.2(a)	
12.1.13	Reserve Capacity Obligation Estimates (Trading Interval/SSC)	Capacity Adjusted Planned Outage Quantity and Capacity Adjusted Forced Outage Quantity estimates for each Separately Certified Component and Trading	6.3A.3(g)	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		Interval as determined by AEMO on the relevant Scheduling Day		
12.1.14	Reserve Capacity Obligation Estimates (Trading Interval/Facility)	Capacity Adjusted Planned Outage Quantity and Capacity Adjusted Forced Outage Quantity estimates for each Scheduled Facility or Semi-Scheduled Facility and Trading Interval as determined by AEMO on the relevant Scheduling Day	6.3A.3(g)	
12.1.15	Reserve Capacity Obligation Estimates (Dispatch Interval/SSC)	Capacity Adjusted Planned Outage Quantity, Capacity Adjusted Forced Outage Quantity and Reserve Capacity Obligation Quantity estimates for each Separately Certified Component and Dispatch Interval as determined by AEMO on the relevant Scheduling Day	6.3A.3(g) and 6.3A.3(h)	
12.1.16	Reserve Capacity Obligation Estimates (Dispatch Interval/Facility)	Capacity Adjusted Planned Outage Quantity, Capacity Adjusted Forced Outage Quantity and Reserve Capacity Obligation Quantity estimates for each Scheduled Facility or Semi-Scheduled Facility and Dispatch Interval as determined by AEMO on the relevant Scheduling Day	6.3A.3(g) and 6.3A.3(h)	

### Notes on Requirements:

#### Version History Requirements:

- Bilateral Submission – Final version for each Trading Interval as at Bilateral Submission Cutoff for the relevant Trading Day.
- STEM Submission – Final version for each Trading Interval and Market Participant as at STEM Submission Cutoff for the relevant Trading Day.

#### Period Required:

- Bilateral Submission, STEM Submission, STEM Offer, STEM Bid, STEM Results, Market Participant Scheduling Day Results - all Trading Intervals since the start of the WEM.
- STEM Information, Electric Storage Resource Obligation Intervals – all Trading Intervals from New WEM Commencement Day.
- Reserve Capacity Obligation Estimates – all Trading Intervals/Dispatch Intervals from New WEM Commencement Day

Update Frequency:

- No later than noon on the next Business Day after the relevant Scheduling Day.

## 12.2 Non-Database Requirements

None identified.

## 13 Real-Time Market Submissions and DSP Withdrawal Profile Submissions

### 13.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
13.1.1	RTMS and DSPWPS Electronic Submission	<p>Details of each electronic submission containing Real-Time Market Submissions, Standing Real-Time Market Submissions, DSP Withdrawal Profile Submissions or Standing DSP Withdrawal Profile Submissions submitted to AEMO. Required details include:</p> <ul style="list-style-type: none"> <li>• Unique submission id</li> <li>• Participant Id</li> <li>• identity of the user making the submission</li> <li>• submission dt (date and time when the submission is first stored in AEMO's systems)</li> <li>• submission type (RTMS or DSPWPS, standing or variation)</li> <li>• comment</li> <li>• submission code</li> <li>• submission reason</li> <li>• allow gate closure violation flag</li> <li>• effective Dispatch Interval (for standing submissions)</li> <li>• current status (submitted, valid, rejected, failed)</li> <li>• JSON message content</li> <li>• date and time the submission was accepted (if valid)</li> <li>• date and time the submission was sent to WEMDE (if valid RTMS)`</li> </ul>	7.4.1, 7.4.2B, 7.4.48, 7.4.49, 7.4.54, 7.4.56, 7.4.58, 7.4.59, 7.4A.1, 7.4A.14, 7.4A.15, 7.4A.16, 7.4A.21, 7.4A.22.	
13.1.2	RTMS and DSPWPS Electronic Submission Status History	<p>A record of each change in the status/sub-status of an RTMS electronic submission. Required details include:</p> <ul style="list-style-type: none"> <li>• submission id</li> <li>• new status/sub-status</li> <li>• date and time of change.</li> </ul>	7.4.48, 7.4.49, 7.4.58, 7.4.59, 7.4A.14, 7.4A.15,	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
			7.4A.21, 7.4A.22.	
13.1.3	RTMS and DSPWPS Electronic Submission Validation Message	<p>Details of each validation message issued for an RTMS electronic submission. Required details include:</p> <ul style="list-style-type: none"> <li>• submission id</li> <li>• validation code</li> <li>• message.</li> </ul>	7.4.48, 7.4.49, 7.4.58, 7.4.59, 7.4A.14, 7.4A.15, 7.4A.21, 7.4A.22.	
13.1.4	Energy RTMS	<p>A record of each distinct energy RTMS for a Facility and Dispatch Interval over the period starting one week before the start of the Dispatch Interval. Required details include:</p> <ul style="list-style-type: none"> <li>• Facility Id</li> <li>• Dispatch Interval</li> <li>• Submission Id</li> <li>• Effective Start Dt (i.e. the later of the acceptance dt of the electronic submission containing the RTMS and one week before the start of the Dispatch Interval)</li> <li>• Effective End Dt (i.e. the acceptance dt of the electronic submission that changed the energy RTMS for the facility and Dispatch Interval, or high values if no such submission exists)</li> <li>• maximum injection capacity</li> <li>• maximum withdrawal capacity</li> <li>• inflexible flag</li> <li>• maximum upwards ramp rate</li> <li>• maximum downwards ramp rate</li> <li>• fast start inflexibility profile parameters (T1, T2, T3 and T4) and min load</li> <li>• Unconstrained Injection Forecast</li> <li>• Unconstrained Withdrawal Forecast</li> </ul>	7.4	<p>Summary table. When constructing the table, ignore any RTMS that contains no substantive changes to the previous energy RTMS accepted for the Facility and Dispatch Interval.</p> <p>The tranche details are to be denormalised so that the details of each RTMS are contained in a single record.</p>

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>for each tranche: fuel type, quantity MW, price, capacity type (Available/In-Service), Notice Time.</li> </ul>		
13.1.5	FCESS RTMS	<p>A record of each distinct RTMS for a Facility, FCESS Market Service and Dispatch Interval over the period starting one week before the start of the Dispatch Interval. Required details include:</p> <ul style="list-style-type: none"> <li>Facility Id</li> <li>Market Service</li> <li>Dispatch Interval</li> <li>Submission Id</li> <li>Effective Start Dt (i.e. the later of the acceptance dt of the electronic submission containing the RTMS, or one week before the start of the Dispatch Interval)</li> <li>Effective End Dt (i.e. the acceptance dt of the electronic submission that changed the RTMS for the facility, Market Service and Dispatch Interval, or high values if no such submission exists)</li> <li>maximum capacity MW</li> <li>Enablement Minimum</li> <li>Low Breakpoint</li> <li>High Breakpoint</li> <li>Enablement Maximum</li> <li>for each tranche: fuel type, quantity MW, price, capacity type (Available/In-Service), Notice Time</li> </ul>	7.4	<p>Summary table. When constructing the table, ignore any RTMS that contains no substantive changes to the previous RTMS accepted for the Facility, Market Service and Dispatch Interval.</p> <p>The tranche details are to be denormalised so that the details of each RTMS are contained in a single record.</p>
13.1.6	DSP Withdrawal Profile	<p>A record of each distinct DSP Withdrawal Profile Submission for a Demand Side Programme and Dispatch Interval over the period starting one week before the start of the Dispatch Interval. Required details include:</p> <ul style="list-style-type: none"> <li>Facility Id</li> <li>Dispatch Interval</li> </ul>	7.4A	<p>Summary table. When constructing the table, ignore any DSP Withdrawal Profile Submission that contains no substantive changes to the previous DSP Withdrawal Profile Submission accepted for the Facility and Dispatch Interval.</p>

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Submission Id</li> <li>• Effective Start Dt</li> <li>• Effective End Dt</li> <li>• DSP Unconstrained Withdrawal Quantity</li> <li>• DSP Constrained Withdrawal Quantity.</li> </ul>		

**Notes on Requirements:**

Version History Requirements:

- See Comments.

Period Required:

- RTMS and DSPWPS Electronic Submissions, Status History and Validation Messages – all submissions
- Energy RTMS, FCESS RTMS and DSP Withdrawal Profile – all Dispatch Intervals from New WEM Commencement Day.

Update Frequency:

- RTMS and DSPWPS Electronic Submissions, Status History and Validation Messages – for each submission with a submission dt in a Trading Day, by noon on the day on which the Trading Day ends.
- Energy RTMS, FCESS RTMS and DSP Withdrawal Profile – for each Dispatch Interval in a Trading Day, by noon on the day on which the Trading Day ends.

**13.2 Non-Database Requirements**

None identified.

## 14 Real-Time Market inputs and outputs, Market Schedules and DSP Schedules

### 14.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
14.1.1	Market Schedule Summary values	<p>For each Week-Ahead Schedule, Pre-Dispatch Schedule or Dispatch Schedule determined by AEMO, for each Pre-Dispatch Interval/Dispatch Interval in the schedule, the following values:</p> <ul style="list-style-type: none"> <li>• the total quantity of Real-Time Market Offers for In-Service Capacity for each Market Service (7.13.1(c))</li> <li>• the total quantity of Real-Time Market Offers for Available Capacity for each Market Service (7.13.1(d))</li> <li>• the total quantity of Real-Time Market Bids for In-Service Capacity for energy (7.13.1(e))</li> <li>• the total quantity of Real-Time Market Bids for Available Capacity for energy (7.13.1(f))</li> <li>• a list of the Intervention Constraints (7.13.1(g))</li> </ul>	See Long Description	
14.1.2	Market Schedule inputs	<p>For each Week-Ahead Schedule, Pre-Dispatch Schedule or Dispatch Schedule determined by AEMO, for each Pre-Dispatch Interval/Dispatch Interval in the schedule, for each Scenario, details of each input to the Dispatch Solver provided in the relevant case file.</p>		<p>Specific format and content requirements to be clarified once AEMO resources are available to discuss. The inputs will include (but are not limited to) identifying details of the dispatch run, input parameters, Constraint Violation Parameters, SCADA inputs, Forecast Unscheduled Operational Demand and any other relevant forecasts of Market Service requirements, Constraint details, Dynamic Frequency Control Model-related inputs, relevant Facility registration details (e.g. inertia and Facility Speed Factors), Facility Loss Factors, whether the Market Clearing</p>



Row Id	Short Description	Long Description	Relevant Clauses	Comments
				Price for a Market Service is required to be set at the relevant price cap, Real-Time Market Submission details and any revised values determined by AEMO (e.g. for Unconstrained Injection and Withdrawal Forecasts or FCESS Trapezium Adjustments). Note that if several solver runs use the same inputs then this information may be able to be rationalised to save space.
14.1.3	Market Schedule – general outputs	<p>For each Week-Ahead Schedule, Pre-Dispatch Schedule or Dispatch Schedule determined by AEMO, for each Pre-Dispatch Interval/Dispatch Interval in the schedule, for each Scenario, the following information:</p> <ul style="list-style-type: none"> <li>• whether the solution was subjected to an Intervention Run</li> <li>• whether the solution resulted in an Over-Constrained Dispatch condition</li> <li>• MWh Forecast Operational Demand or scenario equivalent (7.13.1A(cA))</li> <li>• MWh Forecast Operational Withdrawal or scenario equivalent (7.13.1A(cB))</li> <li>• Minimum RoCoF Control Requirement (7.13.1A(k))</li> <li>• Additional RoCoF Control Requirement (7.13.1A(l))</li> <li>• RoCoF Control Requirement (7.13.1A(m))</li> <li>• Contingency solution details (including but not limited to Contingency Raise Offset (7.13.1A(n) and Contingency Lower Offset (7.13.1A(o))</li> </ul>	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
14.1.4	Market Schedule – Binding Constraint Equations	For each Week-Ahead Schedule, Pre-Dispatch Schedule or Dispatch Schedule determined by AEMO, for each Pre-Dispatch Interval/Dispatch Interval in the schedule, for each Scenario, the details provided in the relevant solution file for any Binding Constraint Equations.	7.13.1A(h)	
14.1.5	Market Schedule – Near Binding Constraint Equations	For each Week-Ahead Schedule, Pre-Dispatch Schedule or Dispatch Schedule determined by AEMO, for each Pre-Dispatch Interval/Dispatch Interval in the schedule, for each Scenario, the details provided in the relevant solution file for any Near Binding Constraint Equations.	7.13.1A(i)	
14.1.6	Market Schedule – Market Service details	<p>For each Week-Ahead Schedule, Pre-Dispatch Schedule or Dispatch Schedule determined by AEMO, for each Pre-Dispatch Interval/Dispatch Interval in the schedule, for each Scenario, and for each Market Service, the following values:</p> <ul style="list-style-type: none"> <li>• projected total quantity (FCESS only) (7.13.1A(d))</li> <li>• projected shortfall (7.13.1A(e))</li> <li>• projected Market Clearing Price (7.13.1A(j))</li> </ul>	See Long Description	
14.1.7	Market Schedule – Registered Facility details	<p>For each Week-Ahead Schedule, Pre-Dispatch Schedule or Dispatch Schedule determined by AEMO, for each Pre-Dispatch Interval/Dispatch Interval in the schedule, for each Scenario, and for each Registered Facility, the following values:</p> <ul style="list-style-type: none"> <li>• projected Dispatch Target, Dispatch Cap and/or Dispatch Forecast values as applicable (7.13.1A(f))</li> <li>• projected Essential System Service Enablement Quantities and ESS Pre-Processing Condition flags as applicable (7.13.1A(g))</li> </ul>	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Facility Performance Factors for each of Contingency Raise and Contingency Lower (where accredited) (7.13.1A(p))</li> <li>• whether the Registered Facility was subject to an approved Commissioning Test (7.13.1A(q))</li> <li>• Whether the Registered Facility was subject to a Reserve Capacity Test (7.13.1A(q))</li> <li>• whether clause 7.5.8(a) applies (7.13.1D(a))</li> <li>• whether clause 7.5.8(b) applies (7.13.1D(b))</li> <li>• the Estimated FCESS Uplift Payment (if a Scheduled Facility or Semi-Scheduled Facility) (7.13.1D(c))</li> </ul>		
14.1.8	Market Schedule - other	For each Week-Ahead Schedule, Pre-Dispatch Schedule or Dispatch Schedule determined by AEMO, for each Pre-Dispatch Interval/Dispatch Interval in the schedule, for each Scenario, details of any other Dispatch Solver outputs provided in the relevant solution file (that are not covered above).		Specific format and content requirements to be clarified once AEMO resources are available to discuss.
14.1.9	DSP Pre-Dispatch Schedule	Full details of each DSP Pre-Dispatch Schedule determined by AEMO	7.13.1G	Specific format and content requirements to be clarified once AEMO resources are available to discuss.
14.1.10	DSP Week-Ahead Schedule	Full details of each DSP Week-Ahead Schedule determined by AEMO	7.13.1G	Specific format and content requirements to be clarified once AEMO resources are available to discuss.
14.1.11	Estimated DPV Generation	For each Dispatch Interval, estimated Distributed Photovoltaic (DPV) Generation MW values (i.e. the average estimated total of DPV generation in the SWIS across the Dispatch Interval, including generation used to supply behind-the-meter loads), derived in the same way as the equivalent Trading Interval values published each day by AEMO on the WEM Website.	N/A	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
14.1.12	Facility Tiebreak Number	For each Trading Day, for each Scheduled Facility, Semi-Scheduled Facility and Interruptible Load, the Facility Tiebreak Number (from 20/11/2024).	7.5.17(a)	

### Notes on Requirements:

#### Version History Requirements:

- N/A.

#### Period Required:

- Estimated DPV Generation – all available data starting from 2020.
- All other requirements - from New WEM Commencement Day.

#### Update Frequency:

- Estimated DPV Generation – no later than noon on the day after the day the corresponding Trading Interval information is published on the WEM Website.
- By noon on the day after the day in which the relevant Market Schedule or DSP Schedule was determined.

## 14.2 Non-Database Requirements

None identified.

## 15 Dispatch, directions and price determination

### 15.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
15.1.1	CDP inputs	For each Dispatch Interval, details of each input to the Dispatch Solver provided in the relevant case file for the Primary Dispatch Run used in the Central Dispatch Process.		Specific format and content requirements to be clarified once AEMO resources are available to discuss. May not be required if the relevant Dispatch Schedule information can be easily identified (see 14.2: Market Schedule Inputs).
15.1.2	CDP - general outputs	<p>For each Dispatch Interval, the following information from the Primary Dispatch Run used in the Central Dispatch Process:</p> <ul style="list-style-type: none"> <li>• whether the solution was subjected to an Intervention Run</li> <li>• whether the solution resulted in an Over-Constrained Dispatch condition</li> <li>• whether a Fast Start Second Pass Run was performed</li> <li>• MWh Forecast Operational Demand (7.13.1A(cA))</li> <li>• MWh Forecast Operational Withdrawal (7.13.1A(cB))</li> <li>• Minimum RoCoF Control Requirement (7.13.1A(k))</li> <li>• Additional RoCoF Control Requirement (7.13.1A(l))</li> <li>• RoCoF Control Requirement (7.13.1A(m))</li> <li>• Contingency solution details (including but not limited to Contingency Raise Offset (7.13.1A(n)) and Contingency Lower Offset (7.13.1A(o))</li> </ul>	See Long Description	
15.1.3	CDP - Binding Constraint Equations	For each Dispatch Interval, the details provided in the solution file for the Primary Dispatch Run used in the Central Dispatch Process for any Binding Constraint Equations.	7.13.1A(h)	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
15.1.4	CDP - Near Binding Constraint Equations	For each Dispatch Interval, the details provided in the solution file for the Primary Dispatch Run used in the Central Dispatch Process for any Near Binding Constraint Equations.	7.13.1A(i)	
15.1.5	CDP – Market Service details	<p>For each Dispatch Interval, for each Market Service, the following details produced by the Primary Dispatch Run used in the Central Dispatch Process:</p> <ul style="list-style-type: none"> <li>• total quantity (FCESS only) (7.13.1A(d))</li> <li>• projected shortfall (7.13.1A(e))</li> <li>• Market Clearing Price (7.13.1B(c))</li> </ul>	See Long Description	
15.1.6	CDP - Registered Facility details	<p>For each Dispatch Interval, for each Registered Facility, the following values (as applicable):</p> <ul style="list-style-type: none"> <li>• Dispatch Target, Dispatch Cap and/or Dispatch Forecast as applicable (7.13.1B(a))</li> <li>• Essential System Service Enablement Quantities and ESS Pre-Processing Condition flags as applicable (7.13.1B(b))</li> <li>• Facility Performance Factors for each of Contingency Raise and Contingency Lower (where accredited) (7.13.1A(p))</li> <li>• whether the Registered Facility was subject to an approved Commissioning Test (7.13.1A(q))</li> <li>• Whether the Registered Facility was subject to a Reserve Capacity Test (7.13.1A(q))</li> <li>• whether clause 7.5.8(a) applies (7.13.1D(a))</li> <li>• whether clause 7.5.8(b) applies (7.13.1D(b))</li> <li>• the Estimated FCESS Uplift Payment (if a Scheduled Facility or Semi-Scheduled Facility) (7.13.1D(c))</li> <li>• any relevant Fast Start mode details</li> </ul>	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
15.1.7	Market Clearing Prices	A history of Market Clearing Prices for each Market Service for each Dispatch Interval, which clearly identifies the final Market Clearing Price for each Market Service/Dispatch Interval, indicates the reasons for any revision of a price, and indicates where a Market Clearing Price has been determined under clauses 7.11B.1A, 7.11B.3, 7.11B.3A, 7.11B.3B, 7.11B.4 or 7.11B.5 or, for final Market Clearing Prices, section 7.11E.		Specific format and content requirements to be clarified once AEMO resources are available to discuss.
15.1.8	Reference Trading Prices	A history of the Reference Trading Price(s) determined for each Trading Interval, which clearly identifies the Final Reference Trading Price for each Trading Interval, and indicates the reason for any revisions.		Specific format and content requirements to be clarified once AEMO resources are available to discuss.
15.1.9	DSP Dispatch Instruction	Details of each Dispatch Instruction issued to a Demand Side Programme.	7.13.1H	
15.1.10	MP Directions (7.7.3-7.7.5)	Details of any directions issued to a Market Participant under clauses 7.7.3, 7.7.4(b) or 7.7.5.	See long description	Specific format and content requirements to be clarified once AEMO resources are available to discuss.
15.1.11	MP Directions (7.7.10)	Details of any directions issued to a Market Participant to vary the operation of a Registered Facility in a way that is not fully set out in a Dispatch Instruction	7.7.10	Specific format and content requirements to be clarified once AEMO resources are available to discuss.
15.1.12	Network Operator Directions (7.6.7)	Details of any directions issued by AEMO to a Network Operator under clause 7.6.7.	7.6.7	Specific format and content requirements to be clarified once AEMO resources are available to discuss.
15.1.13	Market Advisories	A full history of any Market Advisories issued under section 7.11, including details of the time and content of each publication (including initial publications, corrections and withdrawals).	7.11	Specific format and content requirements to be clarified once AEMO resources are available to discuss.

Row Id	Short Description	Long Description	Relevant Clauses	Comments
15.1.14	Confirmation of Dispatch Instruction receipt	A record of each confirmation of receipt of a Dispatch Instruction received by AEMO in accordance with clause 7.6.20.	7.6.20	Specific format and content requirements to be clarified once AEMO resources are available to discuss.
15.1.15	WEMDE failure	For each Dispatch Interval, an indicator of whether AEMO failed to use the Dispatch Algorithm for the purposes of the Central Dispatch Process, and, where this is the case, identification of the substitute Market Schedule selected by AEMO for settlement under clause 7.11B.1A.	7.11B.1A	
15.1.16	Affected Dispatch Intervals	For each Dispatch Interval, an indicator of whether AEMO determined that the Dispatch Interval was an Affected Dispatch Interval, and, where this is the case, identification of the substitute Market Schedule selected by AEMO for settlement under clause 7.11C.2.	7.11C.1A, 7.11C.2	
15.1.17	RTM Suspension Flag	For each Dispatch Interval, the RTM Suspension Flag	7.11D.6	
15.1.18	WEMDE failure substitute information	For each Dispatch Interval for which AEMO failed to use the Dispatch Algorithm for the purposes of the Central Dispatch Process or determined that the Dispatch Interval was an Affected Dispatch Interval, the information made available to Market Participants under clauses 7.13.1BA, 7.13.1DA and 7.13.1EA.	7.13.1BA, 7.13.1DA	
15.1.19	Non-Dispatch Algorithm Dispatch Instructions	The details captured under clause 7.6.8 for each Dispatch Instruction issued to a Registered Facility for a Dispatch Interval that was not generated by the Dispatch Algorithm.	7.6.8, 7.13.1E(e)	



## Notes on Requirements:

### Version History Requirements:

- For Market Clearing Prices, require the original price determined by WEMDE (where available) and, if the final Market Clearing Price is not this value, the basis for and timing of the alternative/revised price.
- For Reference Trading Prices, require the original price provided under clause 7.13.1C (where available) and, if the Final Reference Trading Price is not this value, the basis for and timing of the alternative/revised price.
- For Market Advisories, require an accurate record of the date/time and content of each publication, including any publications that are corrections to previous publications.
- N/A for other requirements.

### Period Required:

- From New WEM Commencement Day.

### Update Frequency:

- For Market Participant directions, Network Operator directions and confirmations of receipt of Dispatch Instructions, no later than noon on the day that the relevant Trading Day ends.
- For other requirements, no later than noon on the day after the day on which the information is made available to Market Participants.

## 15.2 Non-Database Requirements

None identified.

## 16 Real-Time Market Settlement inputs

### 16.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
16.1.1	Operational Demand and Withdrawal	For each Dispatch Interval, the following values: <ul style="list-style-type: none"> <li>Operational Demand (7.13.1E(a)(vii))</li> <li>Operational Withdrawal (7.13.1E(a)(viii))</li> </ul>	See Long Description	
16.1.2	Facility SCADA/ Dispatch Interval	For each Dispatch Interval, for each Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility, the following values: <ul style="list-style-type: none"> <li>a SCADA-based estimate of the MWh of Injection or Withdrawal (7.13.1E(a)(i))</li> <li>the EOI Quantity (7.13.1E(a)(vi))</li> </ul>	See Long Description	
16.1.3	Facility SCADA/ Trading Interval	For each Trading Interval, for each Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility, a SCADA-based estimate of the MWh of Injection or Withdrawal	7.13.1E(aA)	
16.1.4	ESR Charge Level/ Dispatch Interval	For each Dispatch Interval, for each Electric Storage Resource that is part of a SCADA monitored Scheduled Facility or Semi-Scheduled Facility, the Charge Level immediately prior to the start of the Dispatch Interval	7.13.1E(a)(iv)	
16.1.5	Intermittent Load EPS consumption/output	For each Dispatch Interval, for each separate electricity producing unit in each Energy Producing System supplying an Intermittent Load that fails the relevant Contingency Raise test, the MWh output or consumption	7.13.1E(a)(v)	
16.1.6	Maximum daily ambient temperature	For each Trading Day, for each Scheduled Facility or Semi-Scheduled Facility, the maximum daily ambient temperature	7.13.1E(b)	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
16.1.7	Congestion Rental	Where applicable, for each Dispatch Interval, for each Scheduled Facility or Semi-Scheduled Facility, the Congestion Rental in respect of the full set of Network Constraints, calculated under clause 7.14.1	7.13.1EA(b)	
16.1.8	Facility Risk	For each Dispatch Interval, for each applicable Facility, the Facility Risk	7.13.1EA(c)(i)	
16.1.9	Network Risk	For each Dispatch Interval, for each Network Contingency which is a Credible Contingency Event that is taken into account when setting the Contingency Reserve Raise requirement under clause 7.2.4 in that Dispatch Interval, the Network Risk associated with the Network Contingency and the Registered Facilities whose Facility Risks are included in the Network Risk	7.13.1EA(c)(ii)	Specific format and content requirements to be clarified once AEMO resources are available to discuss.
16.1.10	Dispatch Interval demand adjustments	For each Trading Interval and each Dispatch Interval, AEMO's estimates of: <ul style="list-style-type: none"> <li>the total quantity of energy not serviced (in MWh) due to involuntary load shedding (7.13.1F(a))</li> <li>the change in Withdrawal (in MWh) of Interruptible Loads in the provision of Contingency Reserve Raise (7.13.1F(b))</li> </ul>	See Long Description	For involuntary load shedding, separate values for UFLS and manual load shedding if the information is available.
16.1.11	Not In-Service Capacity	For each Dispatch Interval, for each Scheduled Facility or Semi-Scheduled Facility for which a Market Participant holds Capacity Credits, the following values: <ul style="list-style-type: none"> <li>Not In-Service Capacity</li> <li>EstDispEnergy(f,DI)</li> <li>ISSDCEnergy(f,DI)</li> <li>ISDispEnergy(f,DI)</li> <li>ReqDispEnergy(f,DI)</li> </ul>	7.13A.1, 7.13A.2, 7.13A.3	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
16.1.12	Scheduled FCESS quantities by Registered Facility	For each FCESS, the Essential System Service Enablement Quantities scheduled in each Dispatch Interval as applicable for each Registered Facility.	7.13.1E(c)	This needs to include all ESS Enablement Quantities, including any dispatched manually (e.g. in the event of Real-Time Market suspension or a WEMDE failure).

### Notes on Requirements:

#### Version History Requirements:

- Only the current version of the information is required (although any revisions that occur after the initial provision of the information should be easily identifiable).

#### Period Required:

- All Trading Days from New WEM Commencement Day.

#### Update Frequency:

- Facility Risk, Network Risk, Dispatch Interval demand adjustment – by the end of the day on which the relevant information is published on the WEM Website.
- Not In-Service Capacity – no later than noon on the second Business Day after the day on which the relevant Trading Day ends.
- Any subsequent revisions – within 2 Business Days of the revision.

## 16.2 Non-Database Requirements

None identified

## 17 Settlement

### 17.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
17.1.1	Settlement – Trading Day values	<p>For each settlement run, for each Trading Day in the relevant Trading Week, the following values:</p> <ul style="list-style-type: none"> <li>• Targeted Reserve Capacity Cost (4.28.1(a), 4.28.3)</li> <li>• Shared Reserve Capacity Cost (4.28.4)</li> <li>• the cost defined under clause 4.28.1(b) (4.28.4(a))</li> <li>• the cost defined under clause 4.28.4(aA) (the sum of the costs determined under clause 4.28.4A for the Trading Day) (from 07/10/2024)</li> <li>• the amount defined under clause 4.28.4(b) (net payments under Supplementary Capacity Contracts less offset amounts drawn under a Reserve Capacity Security or DSP Reserve Capacity Security)</li> <li>• the amount defined under clause 4.28.4(c) (sum of Intermittent Load Refunds)</li> <li>• the amount defined under clause 4.28.4(d) (amounts drawn under a Reserve Capacity Security or DSP Reserve Capacity Security and distributed to Market Participants)</li> <li>• Market Fee Rate (2.24.2)</li> <li>• Regulator Fee Rate (2.24.2)</li> <li>• Coordinator Fee Rate (2.24.2)</li> <li>• Service Fee Settlement Amount payable to AEMO (9.13.2)</li> <li>• Service Fee Settlement Amount payable to the ERA (9.13.3)</li> <li>• Service Fee Settlement Amount payable to the Coordinator (9.13.4).</li> </ul>	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
17.1.2	Settlement – Trading Interval values	<p>For each settlement run, for each Trading Interval in the relevant Trading Week, the following values:</p> <ul style="list-style-type: none"> <li>• Total Consumption Contributing Quantity (9.5.8)</li> <li>• Final Reference Trading Price</li> <li>• Total energy uplift recoverable (9.9.14)</li> <li>• Contingency Reserve Lower amount payable (9.10.11)</li> <li>• Cost of procuring the Minimum RoCoF Control Requirement (9.10.18)</li> <li>• Regulation amount payable (9.10.24)</li> <li>• System Restart Services amount payable (9.10.27)</li> <li>• NCESS residual amount payable (9.10.27D)</li> <li>• NCESS amount payable for Peak Capacity (9.10.27D(c)) (from 07/10/2024)</li> <li>• Regulation contributing quantity (9.10.39)</li> <li>• Outage compensation payable (9.11.5)</li> <li>• Dynamic refund factor RD dynamic(t) (4.26.1(d))</li> <li>• Sum of all Trading Interval Capacity Cost Refunds (TAR(t)) (4.26.6(b))</li> <li>• Market Suspension Deficit Amount recoverable (MSDA_Recoverable(t)) (9.11A.8)</li> <li>• Market Suspension Excess Amount payable (MSEA_Rebate(t)) (9.11A.11)</li> </ul>	See Long Description	
17.1.3	Settlement – Dispatch Interval values	<p>For each settlement run, for each Dispatch Interval in the relevant Trading Week, the following values:</p> <ul style="list-style-type: none"> <li>• Final Contingency Reserve Raise Market Clearing Price</li> <li>• Contingency Reserve Raise amount payable (9.10.7)</li> <li>• RoCoF Control Service amount payable (9.10.15)</li> <li>• Cost of procuring the Minimum RoCoF Control Requirement (9.10.16)</li> </ul>	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Minimum RoCoF Control Requirement (7.13.1B(f))</li> <li>• RoCoF Control Requirement (7.13.1B(h))</li> <li>• Cost of procuring the Additional RoCoF Control Requirement (9.10.19)</li> <li>• Largest Facility Risk (2A, 3.2)</li> <li>• Largest Network Risk</li> <li>• NetworkComponent(DI) (2A, 5.1(a))</li> <li>• FacilityComponent(DI) (2A, 5.1(b))</li> </ul>		
17.1.4	Settlement – MP/Trading Day values	<p>For each settlement run, for each Market Participant, for each Trading Day in the relevant Trading Week, the following values:</p> <ul style="list-style-type: none"> <li>• Total settlement amount (including GST and interest)</li> <li>• Net settlement amount (9.6.3)</li> <li>• Net GST paid/charged (9.1.4)</li> <li>• Net interest paid/charged (9.1.3)</li> <li>• STEM Settlement Amount (9.7.2)</li> <li>• Reserve Capacity settlement amount (9.8.2)</li> <li>• Capacity Provider Payment (9.8.3)</li> <li>• Participant Capacity Rebate (4.29.3(d)(vii)) (up to 12/12/2023)</li> <li>• Capacity Payments for non-allocated Capacity Credits (9.8.3(b))</li> <li>• Intermittent Load Refund (4.29.3(dA))</li> <li>• Supplementary Capacity Payment (4.29.3(e)(i))</li> <li>• Capacity Cost Refund (4.29.3(d)(vi), 4.26.2E)</li> <li>• Over allocation payment (9.8.3(f))</li> <li>• Sum of Capacity Credits allocated to the Market Participant in a Capacity Credit Allocation (9.8.3(g), 9.8.4(i))</li> <li>• Excess Allocation Price (9.8.3(i))</li> </ul>	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Capacity Purchaser Payment (9.8.4)</li> <li>• Targeted Reserve Capacity Cost (9.8.4(a))</li> <li>• Shared Reserve Capacity Cost (9.8.4(b))</li> <li>• Shortfall Share (9.8.4(d))</li> <li>• Capacity Share (9.8.4(f))</li> <li>• Real-Time Energy settlement amount (9.9.2)</li> <li>• Essential System Services settlement amount (9.10.2)</li> <li>• Essential System Service amount payable (9.10.3)</li> <li>• Contingency Reserve Raise amount payable (9.10.4)</li> <li>• Contingency Reserve Lower amount payable (9.10.8)</li> <li>• RoCoF Control Service amount payable (9.10.12)</li> <li>• Regulation amount payable (9.10.20)</li> <li>• System Restart Service amount payable (9.10.25)</li> <li>• NCESS amount payable (9.10.27A)</li> <li>• FCESS uplift amount payable (9.10.3A)</li> <li>• Essential System Service amount recoverable (9.10.28)</li> <li>• Contingency Reserve Raise amount recoverable (9.10.29)</li> <li>• Contingency Reserve Lower amount recoverable (9.10.31)</li> <li>• RoCoF Control Service amount recoverable (9.10.33)</li> <li>• Regulation amount recoverable (9.10.35)</li> <li>• System Restart Service amount recoverable (9.10.40)</li> <li>• NCESS amount recoverable (9.10.44)</li> <li>• Outage Compensation settlement amount (section 9.11.2)</li> <li>• Outage Compensation payable (9.11.3)</li> <li>• Outage Compensation recoverable (9.11.6)</li> <li>• Market Participant fee settlement amount (9.12.2)</li> </ul>		



Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Market Participant Market Fees settlement amount (9.12.3)</li> <li>• Market Participant Regulator Fees settlement amount (9.12.4)</li> <li>• Market Participant Coordinator Fees settlement amount (9.12.4A)</li> <li>• Participant Contribution (9.12.5)</li> <li>• Market Suspension Compensation settlement amount (9.11A.3)</li> <li>• Market Participant Deficit Amount (9.11A.4)</li> <li>• Market Participant Excess Amount (9.11A.5)</li> <li>• Market Suspension Deficit Amount recoverable (MSDA_Recoverable(p,d)) (9.11A.6)</li> <li>• Market Suspension Excess Amount payable (MSEA_Rebate(p,d)) (9.11A.9)</li> </ul>		
17.1.5	Settlement – MP/Trading Interval values	<p>For each settlement run, for each Market Participant, for each Trading Interval in the relevant Trading Week, the following values:</p> <ul style="list-style-type: none"> <li>• Consumption Share (9.5.6)</li> <li>• Consumption Contributing Quantity (9.5.7)</li> <li>• STEM Settlement Amount (9.7.3)</li> <li>• Real-Time Energy settlement amount (9.9.3)</li> <li>• Energy Trading Amount (9.9.4)</li> <li>• Energy uplift amount payable (9.9.6)</li> <li>• Energy uplift amount recoverable (9.9.15)</li> <li>• Net Trading Quantity (9.9.5)</li> <li>• Sum of the Metered Schedules of the Market Participant’s Facilities (note this can be derived from Net Trading Quantity and Net Contract Position)</li> </ul>	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Energy trading amount for energy sold in the Real-Time Energy Market</li> <li>• Energy trading amount for energy purchased in the Real-Time Energy Market</li> <li>• Quantity of energy sold in the Real-Time Energy Market</li> <li>• Quantity of energy purchased in the Real-Time Energy Market</li> <li>• System Restart Service amount payable (9.10.26)</li> <li>• NCESS amount payable (9.10.27B)</li> <li>• Contingency Reserve Raise amount recoverable (9.10.30)</li> <li>• Contingency Reserve Lower amount recoverable (9.10.32)</li> <li>• RoCoF Control Service amount recoverable (9.10.34)</li> <li>• MinRCS amount recoverable (9.10.42)</li> <li>• MinRCS Share (9.10.42(b), Appendix 2B)</li> <li>• Regulation amount recoverable (9.10.36)</li> <li>• Regulation Share (9.10.37)</li> <li>• Regulation Contributing Quantity (9.10.38)</li> <li>• System Restart Service amount recoverable (9.10.41)</li> <li>• NCESS Amount recoverable (9.10.45)</li> <li>• Outage Compensation payable (9.11.4)</li> <li>• Outage Compensation recoverable (9.11.7)</li> <li>• Generation Reserve Capacity Deficit Refund (4.26.1I)</li> <li>• Net STEM Shortfall (4.26.2AA)</li> <li>• STEMREQ(p,t) (4.26.2AB)</li> <li>• CAPASTEM(p,t) (4.26.2AE)</li> <li>• RTCR(p,t) (4.26.2AH)</li> <li>• LF(p,t) (4.26.2AF)</li> <li>• Trading Interval Capacity Cost Refund (4.26.2F)</li> </ul>		

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Generation Capacity Cost Refund (where applicable) (4.26.3)</li> <li>• Net STEM Refund (where applicable) (4.26.3(b))</li> <li>• Participant Capacity Rebate (where applicable) (4.26.4) (up to 12/12/2023)</li> <li>• Market Participant Deficit Amount payable (MPDA(p,t)) (7.12.8(b))</li> <li>• Market Participant Excess Amount recoverable (MPEA(p,t)) (7.12.2(b))</li> <li>• Market Suspension Deficit Amount recoverable (MSDA_recoverable(p,t)) (9.11A.7)</li> <li>• Market Suspension Excess Amount payable (MSEA_Rebate(p,t)) (9.11A.10)</li> </ul>		
17.1.6	Settlement – MP/Dispatch Interval values	<p>For each settlement run, for each Market Participant, for each Dispatch Interval in the relevant Trading Week, the following values:</p> <ul style="list-style-type: none"> <li>• NCESS amount payable (9.10.27C)</li> <li>• Total Runway Share (9.10.30(b), Appendix 2A 5.3)</li> <li>• RTMSuspShare(p,DI) (9.10.30A)</li> <li>• Facility Component Share (2A 5.3(a))</li> <li>• Network Component Share (2A 5.3(a))</li> <li>• Additional RCS amount recoverable (9.10.43)</li> <li>• STEMREQ(p,DI) (4.26.2AC)</li> <li>• LF(p,DI) (4.26.2AG)</li> </ul>	See Long Description	
17.1.7	Settlement – CC Facility/Trading Day	<p>For each settlement run, for each Trading Day in the relevant Trading Week, for each Facility with Capacity Credits, the following values:</p> <ul style="list-style-type: none"> <li>• the responsible Market Participant</li> <li>• the number of Capacity Credits assigned to the Facility</li> </ul>		While the responsible Market Participant has been included here, more generally want to be able to easily identify the Market Participant for a Facility for any Trading Day/Trading Interval/Dispatch Interval.

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• the number of Capacity Credits assigned to the Facility that have been allocated in a Capacity Credit Allocation</li> <li>• the Facility Daily Reserve Capacity Price.</li> </ul>		
17.1.8	Settlement – CC Registered DSP/Trading Day	<p>For each settlement run, for each Trading Day in the relevant Trading Week, for each Demand Side Programme with Capacity Credits, the following values:</p> <ul style="list-style-type: none"> <li>• Relevant Demand (4.26.2CA)</li> <li>• The value determined for the Demand Side Programme under Appendix 10 (4.26.2CA(a), Appendix 10)</li> <li>• The sum of the Individual Reserve Capacity Requirement Contributions of the Associated Loads of the Demand Side Programme for the Trading Month in which the Trading Day falls (4.26.2CA(b))</li> </ul>	See Long Description	
17.1.9	Settlement – CC Facility/Trading Interval	<p>For each settlement run, for each Trading Interval in the relevant Trading Week, for each Facility with Capacity Credits, the following values:</p> <ul style="list-style-type: none"> <li>• Trading Interval Refund Rate (4.26.1(a))</li> <li>• Y(f,t) relevant capacity price (4.26.1(b))</li> <li>• RF(f,t) refund factor (4.26.1(c))</li> <li>• Minimum refund factor RF floor(f,t) (4.26.1(f) and (g))</li> <li>• Interval Reserve Capacity Price (RCP_F_I)</li> <li>• Facility Reserve Capacity Deficit Refund (4.26.1A)</li> <li>• Reserve Capacity Deficit (4.26.1A(a)(ii))</li> <li>• Facility Capacity Rebate (where applicable) (4.26.6)</li> <li>• CShare(f,t) (where applicable (4.26.6(d))</li> <li>• E(f,t) (where applicable) (4.26.6(e))</li> </ul>	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
17.1.10	Settlement – CC Registered Facility/Trading Interval	For each settlement run, for each Trading Interval in the relevant Trading Week, for each Registered Facility with Capacity Credits, the following values: <ul style="list-style-type: none"> <li>• Spare(f,t) available capacity not dispatched (4.26.1(e))</li> </ul>	See Long Description	
17.1.11	Settlement – CC Registered DSP/Trading Interval	For each settlement run, for each Trading Interval in the relevant Trading Week, for each Demand Side Programme with Capacity Credits, the following values: <ul style="list-style-type: none"> <li>• Capacity Shortfall (4.26.2D)</li> <li>• Reserve Capacity Obligation Quantity</li> <li>• DIMW(f,t) (4.26.2D(a), 7.13.5)</li> <li>• DSPLMW(f,t) (4.26.2D(a))</li> </ul>	See Long Description	
17.1.12	Settlement - CC DSP Class/Trading Interval	For each settlement run, for each Trading Interval in the relevant Trading Week, for each Facility with Capacity Credits with a Facility Class (or, for an unregistered Facility, an indicative Facility Class) of Demand Side Programme, the following values: <ul style="list-style-type: none"> <li>• Demand Side Programme Capacity Cost Refund</li> </ul>	4.26.3A	
17.1.13	Settlement – Registered Facility/ Trading Interval	For each settlement run, for each Trading Interval in the relevant Trading Week, for each Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility, the following values: <ul style="list-style-type: none"> <li>• Energy Uplift Payment (9.9.7)</li> <li>• FCESS Uplift Payment (9.10.3B)</li> <li>• Contingency Reserve Raise amount payable (9.10.5)</li> <li>• Contingency Reserve Lower amount payable (9.10.9)</li> <li>• RoCoF Control Service amount payable (9.10.13)</li> <li>• Regulation amount payable (9.10.21)</li> <li>• Outage Compensation payable (9.11.4(a), 3.18H.5)</li> </ul>	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
17.1.14	Settlement – SF-SSF CO/Trading Interval	<p>For each settlement run, for each Trading Interval in the relevant Trading Week, for each Scheduled Facility or Semi-Scheduled Facility AEMO considers to be in Commercial Operation, the following values:</p> <ul style="list-style-type: none"> <li>• Real-Time Market Reserve Capacity Deficit (4.26.1B)</li> <li>• Reserve Capacity Obligation Quantity (4.26.1B(a))</li> <li>• Capacity Adjusted Forced Outage Quantity (4.26.1B(b))</li> <li>• Not In-Service Capacity Refund Quantity (4.26.1D)</li> <li>• ESR Charge Shortfall (4.26.1E)</li> <li>• Real-Time Market Offer Shortfall (4.26.1G)</li> <li>• Total Refund Payable Planned Outage Quantity for Non-Intermittent Generating Systems (4.26.1C)</li> <li>• Total Refund Payable Planned Outage Quantity for Electric Storage Resources (4.26.1CA)</li> </ul>	See Long Description	
17.1.15	Settlement – SSC/Trading Interval	<p>For each settlement run, for each Trading Interval in the relevant Trading Week, for each Separately Certified Component of a Scheduled Facility or Semi-Scheduled Facility, the following values:</p> <ul style="list-style-type: none"> <li>• Capacity Adjusted Planned Outage Quantity</li> <li>• Refund Exempt Planned Outage Count for the SSC, calculated over the preceding 1000 Trading Days (IGS and ESR only)</li> <li>• Refund Exempt Planned Outage Quantity (4.26.1C(a), 4.26.1CA(a))</li> <li>• Refund Payable Planned Outage Quantity (4.25.1C(b), 4.26.1CA(b))</li> </ul>	See Long Description	
17.1.16	Settlement – Registered Facility/ Dispatch Interval	For each settlement run, for each Dispatch Interval in the relevant Trading Week, for each Scheduled Facility,	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<p>Semi-Scheduled Facility or Non-Scheduled Facility, the following values:</p> <ul style="list-style-type: none"> <li>• Energy Uplift Payment (9.9.8)</li> <li>• Is Mispriced trigger (9.9.9)</li> <li>• Energy Uplift Price (9.9.10)</li> <li>• Energy Uplift Quantity (9.9.11)</li> <li>• FCESS Uplift Payment (9.10.3H) (up to 19/11/2024)</li> <li>• FCESS Uplift Payment (9.10.3C) (from 20/11/2024)</li> <li>• Estimated Real-Time Market dispatch cost (9.10.3D) (from 20/11/2024)</li> <li>• Real-Time Market base compensation amount (9.10.3E) (from 20/11/2024)</li> <li>• FCESS Uplift Payment eligibility flag (9.10.3F) (from 20/11/2024)</li> <li>• FCESS Minimum Dispatch Target (9.10.3G) (from 20/11/2024)</li> <li>• Minimum theoretical Dispatch Target – Raise (9.10.3H) (from 20/11/2024)</li> <li>• Minimum theoretical Dispatch Target – Lower (9.10.3HA) (from 20/11/2024)</li> <li>• Number of FCESS to be allocated a share of the FCESS Uplift Payment (9.10.3I) (from 20/11/2024)</li> <li>• Share of FCESS Uplift Payment to be allocated to each FCESS (9.10.3J) (from 20/11/2024)</li> <li>• Enablement Losses – Contingency Reserve Raise (9.10.3C) (up to 19/11/2024)</li> <li>• Enablement Losses – Contingency Reserve Lower (9.10.3D) (up to 19/11/2024)</li> <li>• Enablement Losses – RoCoF Control Service (9.10.3E) (up to 19/11/2024)</li> </ul>		

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Enablement Losses – Regulation Raise (9.10.3F) (up to 19/11/2024)</li> <li>• Enablement Losses – Regulation Lower (9.10.3G) (up to 19/11/2024)</li> <li>• FCESS Uplift Payment share allocated to Contingency Reserve Raise (9.10.3K)</li> <li>• FCESS Uplift Payment share allocated to Contingency Reserve Lower (9.10.3L)</li> <li>• FCESS Uplift Payment share allocated to RoCoF Control Service (9.10.3M) (up to 19/11/2024)</li> <li>• FCESS Uplift Payment share allocated to Regulation Raise (9.10.3N)</li> <li>• FCESS Uplift Payment share allocated to Regulation Lower (9.10.3O)</li> <li>• Contingency Reserve Raise amount payable (9.10.6)</li> <li>• Contingency Reserve Raise Enablement Quantity (9.10.6(c)) (note the 7.13.1B(b) quantity will be provided under a different subject area)</li> <li>• Contingency Reserve Raise Performance Factor (9.10.6(d), 7.13.1B(k))</li> <li>• Contingency Reserve Raise SESSM Availability Payment (9.10.6(e))</li> <li>• Contingency Reserve Raise SESSM Refund (9.10.6(f))</li> <li>• Contingency Reserve Lower amount payable (9.10.10)</li> <li>• Contingency Reserve Lower Enablement Quantity (9.10.10(c))</li> <li>• Contingency Reserve Lower Performance Factor (9.10.14(d), 7.13.1B(k))</li> <li>• Contingency Reserve Lower SESSM Availability Payment (9.10.10(e))</li> </ul>		



Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Contingency Reserve Lower SESSM Refund (9.10.10(f))</li> <li>• RoCoF Control Service amount payable (9.10.14)</li> <li>• RoCoF Control Service Enablement Quantity (9.10.14(c))</li> <li>• RoCoF Control Service Performance Factor (9.10.14(d), 7.13.1B(k))</li> <li>• RoCoF Control Service SESSM Availability Payment (9.10.14(e))</li> <li>• RoCoF Control Service SESSM Refund (9.10.14(f))</li> <li>• Regulation Raise amount payable (9.10.22)</li> <li>• Regulation Raise Enablement Quantity (9.10.22(c))</li> <li>• Regulation Raise Performance Factor (9.10.22(d), 7.13.1B(k))</li> <li>• Regulation Raise SESSM Availability Payment (9.10.22(e))</li> <li>• Regulation Raise SESSM Refund (9.10.22(f))</li> <li>• Regulation Lower amount payable (9.10.23)</li> <li>• Regulation Lower Enablement Quantity (9.10.22(c))</li> <li>• Regulation Lower Performance Factor (9.10.22(d), 7.13.1B(k))</li> <li>• Regulation Lower SESSM Availability Payment (9.10.22(e))</li> <li>• Regulation Lower SESSM Refund (9.10.22(f))</li> </ul>		
17.1.17	Settlement – SF-SSF CO/Dispatch Interval	<p>For each settlement run, for each Dispatch Interval in the relevant Trading Week, for each Scheduled Facility or Semi-Scheduled Facility AEMO considers to be in Commercial Operation, the following values:</p> <ul style="list-style-type: none"> <li>• Reserve Capacity Obligation Quantity</li> <li>• Capacity Adjusted Forced Outage Quantity</li> </ul>	See Long Description	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		<ul style="list-style-type: none"> <li>• Not In-Service Capacity (7.13A.1)</li> <li>• Shortfall in capacity offered into the Real-Time Market (4.26.1H)</li> <li>• OfferAvail(f,DI) (4.26.1H(b))</li> </ul>		
17.1.18	Settlement – ESR SSC/Dispatch Interval	<p>For each settlement run, for each Dispatch Interval in the relevant Trading Week, for each Separately Certified Component that is an Electric Storage Resource, the following values:</p> <ul style="list-style-type: none"> <li>• ESR capacity shortfall (4.26.1F)</li> <li>• Reserve Capacity Obligation Quantity</li> <li>• Capacity Adjusted Forced Outage Quantity</li> <li>• Charge Level (4.26.1F(c))</li> <li>• Minimum Charge Level capability (4.26.1F(d))</li> </ul>	See Long Description	
17.1.19	Settlement – Intermittent Load/ Trading Interval	<p>For each settlement run, for each Trading Interval in the relevant Trading Week, for each Intermittent Load deemed to be an Intermittent Load under clause 1.48.2, the following values:</p> <ul style="list-style-type: none"> <li>• The Intermittent Load Refund for value determined for the Intermittent Load (4.28A.1)</li> <li>• Trading Interval Refund Rate (4.28A.1(a))</li> <li>• The capacity shortfall for the trading Interval (4.28A.1(c))</li> <li>• The quantity specified in clause 4.28A.1(c)(i)</li> <li>• The quantity specified in clause 4.28A.1(c)(ii)</li> <li>• The quantity specified in clause 4.28A.1(c)(iii)</li> <li>• The quantity specified in clause 4.28A.1(c)(iv)</li> </ul>	See Long Description	
17.1.20	Settlement – Facility Risks	For each settlement run, for each Dispatch Interval in the relevant Trading Week, for each member of Facilities(DI) or AdditionalFacilities(DI), the Facility Risk	Appendix 2A, clause 2.2	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
17.1.21	Settlement – Facility runway share	For each settlement run, for each Dispatch Interval in the relevant Trading Week, for each Applicable Facility, the facility runway share	Appendix 2A, clause 3.3	
17.1.22	Settlement – Applicable Network Contingencies	For each settlement run, for each Dispatch Interval in the relevant Trading Week, for each member nc of ApplicableNetworkContingencies(DI), for each member f of CauserFacilities(nc, DI), the following values: <ul style="list-style-type: none"> <li>• NetworkRunwayShare(nc,f,DI)</li> <li>• NetworkShare(nc,f,DI)</li> </ul>	Appendix 2A, clauses 4.5(c) and 5.2	
17.1.23	Settlement – System Restart contract payments/Trading Interval	For each settlement run, for each Trading Interval in the relevant Trading Week, for each relevant System Restart Service Contract, the following values: <ul style="list-style-type: none"> <li>• the responsible Market Participant</li> <li>• the System Restart Service Contract</li> <li>• the amount payable</li> </ul>	9.10.26	
17.1.24	Settlement – NCESS Contract payments/Dispatch Interval	For each settlement run, for each Dispatch Interval in the relevant Trading Week, for each relevant NCESS Contract, the following values: <ul style="list-style-type: none"> <li>• the responsible Market Participant</li> <li>• the NCESS Contract</li> <li>• the amount payable</li> </ul>	5.9.1, 9.10.27C	
17.1.25	Settlement – Non-MP Supplementary Capacity Payments	For each settlement run, details of any Supplementary Capacity Payments made to non-Market Participants under clause 9.8.5.		Details to be discussed with AEMO.
17.1.26	Metered Schedules	For each settlement run, for each Trading Interval in the relevant Trading Week, for each Scheduled Facility, Semi-Scheduled Facility or Non-Scheduled Facility, the Notional Wholesale Meter, and the Intermittent Load and	2.30B.10, 2.30B.11, 9.5	

Row Id	Short Description	Long Description	Relevant Clauses	Comments
		non-Intermittent Load components of each Intermittent Load arrangement, the following values: <ul style="list-style-type: none"> <li>• Metered Schedule</li> <li>• Sent Out Metered Schedule.</li> </ul>		
17.1.27	Settlement – Facility Contingency Reserve Raise share (market suspension)	For each settlement run, for each Dispatch Interval in the relevant Trading Week for which the Real-Time Market is suspended, for each Applicable Facility, the facility contributing quantity to the total cost of procuring Contingency Reserve Raise and the Additional RoCoF Control Requirement component of RoCoF Control Service.	9.10.30C	

#### Notes on Requirements:

##### Version History Requirements:

- The information is required for each completed settlement run. The information from the most recent settlement run for the relevant Trading Week should be easily identifiable, so it is simple to identify both the 'current' values of a variable and the values that were used for a specific settlement run.

##### Period Required:

- From New WEM Commencement Day.

##### Update Frequency:

- No later than noon on the next Business Day after the day on which settlement statements were issued for the relevant settlement run.

## 17.2 Non-Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
17.2.1	Cure Notice	Notification of any Cure Notice issued by AEMO to a Market Participant (including date/time issued, Market Participant, details of the relevant Suspension Event, details of any extensions granted and the eventual outcome (e.g. Market Participant remedies the Suspension Event, issue of a Suspension Notice).	9.19	
17.2.2	Drawing Upon Credit Support	Notification of any occurrence of AEMO Drawing Upon the Credit Support held by a Market Participant (including date, Market Participant, reason and amount of Credit Support drawn upon).	9.19, 9.20	
17.2.3	Market short payment	Notification of any settlement run where AEMO is required to short pay the market because of a payment default (including the settlement date, and the amount of and reason for the shortfall).	9.20.3-9.20.4	
17.2.4	Default Levy	Notification of any Default Levy raised by AEMO (including the total amount to be raised, the date Market Participants are notified of the Default Levy, and details of any subsequent recovery of the shortfall amount from the defaulting Market Participant).	9.20	
17.2.5	Repaid Amount Levy	Notification of an Repaid Amount Levy raised by AEMO (including the reason for the levy, the total amount to be raised and the date Market Participants are notified of the Repaid Amount Levy).	9.20	
17.2.6	Financial Penalty Distribution	Details of any Financial Penalty distributed by AEMO under clause 9.21.2 (including the Financial Penalty Amount, the date of the distribution and the amount distributed to each Market Participant)	9.21	

**Notes on Requirements:**

## Version History Requirements:

- Where multiple events are involved, separate notifications for each relevant event in the process, unless multiple events occur on a single day.

## Period Required:

- All occurrences from New WEM Commencement Day.

## Update Frequency:

- No later than noon on the next Business Day after the day on which the relevant event occurs.

## 18 Pre-New WEM Commencement Day data

### 18.1 Database Requirements

Row Id	Short Description	Long Description	Relevant Clauses	Comments
18.1.1	Pre-NWCD MSDC database	<p>Continued access to the tables and views in the following databases that were provided by AEMO to the Coordinator and the ERA prior to New WEM Commencement Day, except where the relevant information is already covered under sections 1-17:</p> <ul style="list-style-type: none"><li>• ERA Data Warehouse/DWHDB (Oracle)</li><li>• PrudentialService (SQL Server)</li><li>• RCMSOperationsService (SQL Server)</li><li>• RCMSSettlementsService (SQL Server)</li></ul> <p>The tables should continue to be populated to include all periods to which the information applies (e.g. Balancing Market-related information is required for all Trading Intervals from the start of the Balancing Market to New WEM Commencement Day).</p>	Various	Longer term, our preference is for this information to be moved to the same database as the information required under sections 1-17, and merged with post-NWCD data where appropriate to provide a continuous history spanning the change in market arrangements.

## **AEMO Compliance Monitoring Requirements (ref. clause 2.16.2A(aA))**

### 19 Rules that AEMO must monitor for compliance

#### 19.1 Rules to be monitored

There are no current agreements for AEMO to monitor specific WEM Rules.

#### **Notes on rules to be monitored**

This section lists the WEM Rules that AEMO must monitor for compliance, and is required to report any breaches of, described in 2.16.2A(aA).