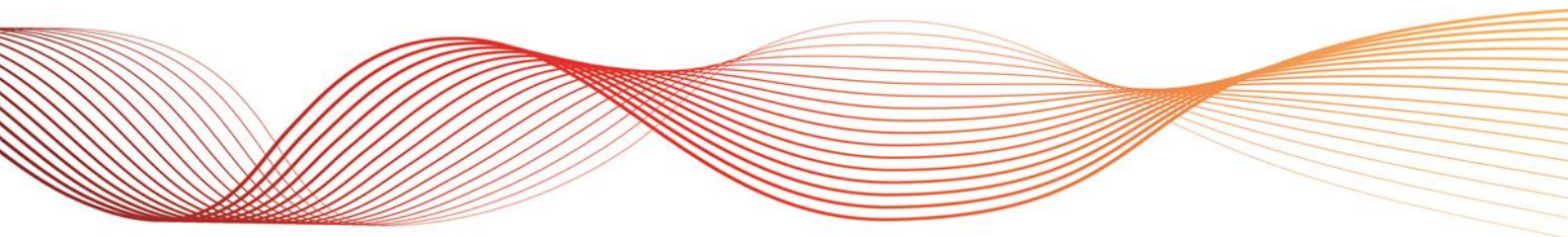




WEMS 3.25 AND RCM 1.6 RELEASE NOTES

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IMPORTANT NOTICE

Purpose

The Australian Energy Market Operator has prepared this document to provide information about the Wholesale Electricity Market System (WEMS) 3.25 (Build 3.25-1379) and RCM 1.6 (Build 1.6-2679) releases, as at the date of publication.

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VERSION RELEASE HISTORY

Version	Effective Date	Summary of Changes
1.0	12/03/2018	Document Creation

DOCUMENT APPROVAL

Name and Position	Date
Martin Maticka Group Manager, WA Markets	28/03/2018



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1. INTRODUCTION

These are the release notes for Wholesale Electricity Market System (WEMS) 3.25 (Build 1379) and RCM Release 1.6 (Build 2679).

This WEMS release includes system changes to ensure Reserve Capacity Mechanism (**RCM**) processes are managed within the RCM portal.

The changes and resolved issues under this release are described in the sections below.

Supporting documentation

The following documents have been updated for this release and should be read in conjunction with these release notes.

- 1) WEMS MPI User Guide.
- 2) WEMS Submission Specification.
- 3) WEMS Submission Validation.
- 4) WEMS Report and Web Service Specification.

These four documents are available on AEMO's website at:

<http://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Participant-information/Guides-and-useful-information>.

WEMS and RCM version summary

The table below summarises the changes in version post this release deployment.

Application	Current version	New version
WEMS	3.24 (Build 1356-4)	3.25 (Build 1379)
RCM	1.5 (Build 2572-8)	1.6 (Build 2679)

To view the current version of both applications, please navigate to Help > About in the MPI.



2. NEW FUNCTIONALITY

This section details the new functionality which will be delivered in this WEMS release.

2.1 Applications for CRC

Market Participants must now submit Certified Reserve Capacity (**CRC**) applications in the RCM portal.

Home	CRC Application	Security	Trade Declaration	CDA	NTDL	Capacity Allocation	IRCR
2015 - 2016	2016 - 2017	2017 - 2018	2018 - 2019	2019 - 2020	2020 - 2021		

Applications for Certification

Certification Submission Window 22/02/2018 09:00 - 08/03/2018 09:00
Closed

Application ↕	Facility Type ↕	Facility Status ↕	Application Status ↕	Submitted On ↕
	NSG	O	ACCEPTED	07/03/2018 15:11:44
	DSP	O	ACCEPTED	08/03/2018 09:38:48

Clicking on the relevant Facility will allow the Market Participant to submit a CRC application to AEMO for review during the Certification submission window.

Key features of the Applications for CRC tab include:

- Ability to save an application before submitting.
- Validations on an uploaded NMI list for the purposes of calculating Relevant Demand for a Demand Side Programme (**DSP**).
- Validations on an uploaded expected output (independent expert report data) file for the purposes of Relevant Level.
- Ability to withdraw an application prior to the close of the Certification submission window.
- Where applicable, fields will be pre-filled (including supporting documents) from previous years' applications, starting from the 2019 Reserve Capacity Cycle.



2.2 Trade declaration

Market Participants must now submit trade declarations in the RCM portal.

Home	CRC Application	Security	Trade Declaration	CDA	NTDL	Capacity Allocation	IRCR
2015 - 2016	2016 - 2017	2017 - 2018		2018 - 2019	2019 - 2020		

Trade Declarations

Trade Declaration Dates:
Closed

Assigned CRC 237	Traded CRC 217	Bilaterally Traded 217	Auction 0	DSM 0	Unavailable 20	Remaining 0
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Trade Declaration Status: ACCEPTED						
	Assigned	Traded	Auction	Unavailable	Remaining	TradedCRC
	217	217	0	0	0	217

During the trade declaration window the Market Participant can submit a trade declaration to AEMO for Facilities that have been assigned CRC.

Key features of the Trade Declaration tab include:

- A summary of all trades submitted by the Market Participant for the relevant Capacity Year.
- Ability to save a trade declaration before submitting.
- Ability to withdraw trade declarations prior to the close of the trade declaration window.

2.3 AEMO tools

This release includes a number of internal tools to assist AEMO during the CRC process. The tools in the table below have no impact on Market Participants systems or operational procedures.

Description	Comments
Relevant Demand calculation	Relevant Demand calculation tool for the purposes of determining CRC for a DSP.
Relevant Level integration	The Relevant Level tool developed in 2016 has been integrated into RCM. This removes the requirements for AEMO to manually import data into the tool. This was an audit recommendation.

2.4 Data migration

The RCM Dashboard and Facility Management Dashboard will be populated with the Capacity Credit information for the 2018-19 and 2019-20 Capacity Years. However, Market Participants will continue to view their Applications for CRC and trade declarations for these Capacity Years in WEMS MPI under the Reserve Capacity menu (Archived Reports).

2.5 Consumption Decrease Peak and Off-Peak Price

Participants with Registered DSP facilities are required to update their Consumption Decrease Price in WEMS Registration Standing Data to reflect changes to the Alternative Maximum STEM Price.

To assist Market Participants, the Registration Standing Data Change Request has been amended to allow Alt Max STEM Price to be selected via a check-box. If this option is selected, the DSP's Consumption Decrease Peak and Off-Peak Prices will automatically use the current Alternative Maximum STEM Price, reflecting any changes to this price from month to month.

For a Demand Side Programme that is registered to a Market Participant other than the Electricity Generation Corporation, Standing Balancing Data comprising a Consumption Decrease Price for Peak Trading Intervals where these prices must be not less than the Minimum STEM Price, and not more than the Alternative Maximum STEM Price, and must be expressed in units of \$/MWh to a precision of \$0.01/MWh (Appendix 1.(h).vi.1) *

\$ 528 Alt Max STEM Price

For a Demand Side Programme that is pre-registered to a Market Participant other than the Electricity Generation Corporation, Standing Balancing Data comprising a Consumption Decrease Price for Off-Peak Trading Intervals where these prices must be not less than the Minimum STEM Price, and not more than the Alternative Maximum STEM Price, and must be expressed in units of \$/MWh to a precision of \$0.01/MWh (Appendix 1.(h).vi.2) *

\$ 528 Alt Max STEM Price

The WEM Registration Technical Guide¹ has been updated to reflect this change.

2.6 Spare capacity

In the 2016 Amending Rules the definition of Balancing Forecast was changed to include a reference to spare capacity. The definition of Balancing Forecast is now:

Balancing Forecast: Means a forecast, determined by AEMO in accordance with the Balancing Forecast Market Procedure, for a Trading Interval, of the following—

- (a) the Relevant Dispatch Quantity for the Trading Interval;
- (b) the aggregate output of all Non-Scheduled Generators which are Balancing Facilities for the Trading Interval;
- (c) the Balancing Price for the Trading Interval; and
- (d) the spare capacity for the Trading Interval.

AEMO has used WEM Rule 4.26.1(d) & (e) to develop the following estimates of spare capacity. Due to availability of data for this calculation, which is only finalised at settlement time, a number of assumptions have been made and are defined as follows:

Field	Description
Forecast Spare Capacity (MW)	Spare capacity calculated using: <ul style="list-style-type: none"> • The latest Forecast Load (excluding NSG) as an estimate of the Sent Out Metered Schedule. • Ex-ante outages. This field updates with every updated Load Forecast before the Trading Interval commences.
Provisional Spare Capacity Using Ex-Ante (MW)	Spare capacity calculated using: <ul style="list-style-type: none"> • SCADA data as an estimate of the Sent Out Metered Schedule. • Ex-ante outages. This value will be made available soon after Resource SCADA is received by WEMS at 12:00pm on the day the Trading Day has ended.
Provisional Spare Capacity Using Ex-Post (MW)	Spare capacity calculated using: <ul style="list-style-type: none"> • SCADA data for the Sent Out Metered Schedule. • Ex-post outages are used in the calculation. This value will be made available soon after ex-post outages are received by WEMS at 12:00pm up to 15 Business Days after the Trading Day.

¹ Found here <https://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Participant-information/Guides-and-useful-information>



2.6.1 User interface changes

These values are displayed in the Balancing Prices display which is accessible from the Balancing menu in WEMS MPI. In this screen you will now find a Spare Capacity section in the search screen showing each of the above options.

The View option Search control panel is updated with a new Spare Capacity section. This comprises three new, separately selectable tick-boxes;

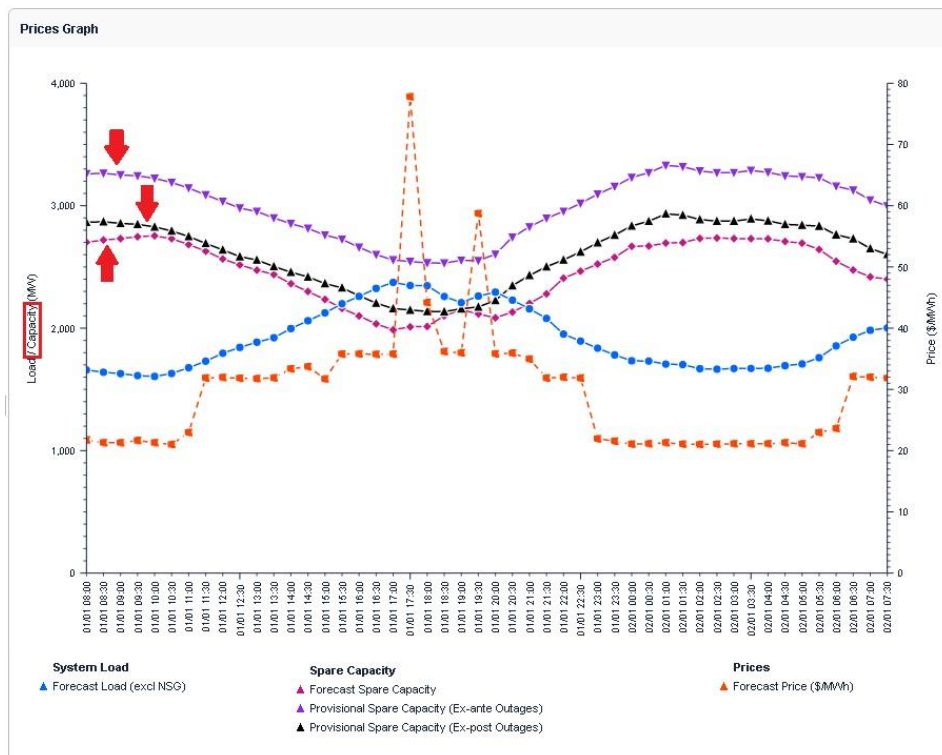
1. Forecast Spare Capacity;
2. Provisional Spare Capacity (Ex-ante Out); and
3. Provisional Spare Capacity (Ex-post Out).

The screenshot shows a 'Search' control panel with the following sections:

- Output:** Radio buttons for View (selected), CSV, and XML.
- From Date:** 1/01/2018
- To Date:** 1/01/2018
- Balancing:**
 - System Load:** Including Non-Sched Gen, Excluding Non-Sched Gen, Non-Sched Generation
 - Spare Capacity:** Forecast Spare Capacity, Provisional Spare Capacity (Ex-ante Out), Provisional Spare Capacity (Ex-post Out)
 - ALINTA Total:** Forecast Aggregate MW
 - Balancing Prices:** Forecast Price, Provisional Price, Final Price

Buttons for CLEAR and GO are at the bottom right.

The Prices Graph legend is updated to include three corresponding items. The Prices Graph plot is updated to include three corresponding lines.



The Prices Data table is updated to include three new columns.

Prices Data

Trading Day	Trading Interval	Forecast MW (excl NSG)	Provisional Spare Capacity MW (Ex-Ante Outages)	Provisional Spare Capacity MW (Ex-Post Outages)	Forecast Spare Capacity MW	Forecast Balancing Price (\$/MWh)
01/01/2018	08:00 - 08:30	1658.85	3260.199	2864.210	2701.013	
01/01/2018	08:30 - 09:00	1639.988	3264.887	2868.898	2719.887	
01/01/2018	09:00 - 09:30	1628.62	3251.487	2855.498	2731.243	
01/01/2018	09:30 - 10:00	1612.596	3243.939	2847.950	2747.274	
01/01/2018	10:00 - 10:30	1605.94	3223.131	2827.142	2753.921	
01/01/2018	10:30 - 11:00	1629.81	3189.801	2793.812	2730.059	
01/01/2018	11:00 - 11:30	1676.76	3144.321	2748.332	2683.103	
01/01/2018	11:30 - 12:00	1730.612	3088.147	2692.158	2629.258	
01/01/2018	12:00 - 12:30	1795.03	3035.327	2639.338	2564.839	
01/01/2018	12:30 - 13:00	1843.042	2980.353	2584.364	2516.828	

The CSV and XML files that are downloadable using the CSV option Search control panel has been updated to include three new columns. The two Provisional columns are included when the *Prov* tick-box is selected. The Forecast column is included when the *Forecast* tick-box is selected.

2.6.2 Web service changes

The web service (Balancing Load and Prices) documented in section 9.3 of the AEMO WEMS Report Specification² has been updated. Additional fields are being added for price types of Forecast or Provisional.

² Found here: <https://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Participant-information/Guides-and-useful-information>



3. DISABLED FUNCTIONALITY

3.1 Submissions and Reports

The changes to the RCM portal has resulted in existing functionality in WEMS being disabled. The following tables describe the existing WEMS submissions and reports which have been disabled in this release.

Submissions

Description	WEMS Link	Comments
Certified Reserve Capacity submissions	https://wems.aemo.com.au/mpi/mpi-ui/reserveCapacity/certificationFileExchange.action	Replaced by a new user interface in the RCM portal.
Bilateral trade declaration submissions	https://wems.aemo.com.au/mpi/mpi-ui/reserveCapacity/fileExchange_Bilateral.action	Replaced by a new user interface in the RCM portal.
Long Term Special Price Agreement (SPA)	https://wems.aemo.com.au/mpi/mpi-ui/reserveCapacity/fileExchange_LongTermSPA.action	Removed from the WEM Rules.
Auction offers	https://wems.aemo.com.au/mpi/mpi-ui/reserveCapacity/fileExchange_AuctionOffers.action	Will not be replaced in the RCM portal. If an auction is required AEMO will manually manage this process.
Capacity Credits & Obligations	https://wems.aemo.com.au/mpi/mpi-ui/reserveCapacity/fileExchange_capacitycreditsandobligations.action	Will not be replaced in the RCM portal. If an auction is required AEMO will manually manage this process.

Reports

Description	WEMS Link	Comments
RC Certification submission	https://wems.aemo.com.au/mpi/mpi-ui/reserveCapacity/annual_certification.action	Populated for Capacity Years up to and including the 2019 Capacity Year. For the 2020 Capacity Year onwards, replaced by a new user interface in the RCM portal.
Certified Reserve Capacity information	https://wems.aemo.com.au/mpi/yearlyReports.action?reportName=RCM_CertResCapInfo MPI report name: RCM_CertResCapInfo Web Service Report: getRcmCertResCapInfoReportRequest	Populated for Capacity Years up to and including the 2019 Capacity Year. For the 2020 Capacity Year onwards, replaced by a new user interface in the RCM portal.
RC Bilateral Trade Declaration	https://wems.aemo.com.au/mpi/mpi-ui/reserveCapacity/annual_bilateral.action	Populated for Capacity Years up to and including the 2019 Capacity Year. For the 2020 Capacity Year onwards, replaced by a new user interface in the RCM portal.
Approved Bilateral Trade Declarations	https://wems.aemo.com.au/mpi/yearlyReports.action?reportName=RCM_ApprvBltdDeclarations MPI report name: RCM_ApprvBltdDeclarations Web Service Report: getApprResvBltdDeclarationsReportRequest	Populated for Capacity Years up to and including the 2019 Capacity Year. For the 2020 Capacity Year onwards, replaced by a new user interface in the RCM portal.
RC Auction Offers	https://wems.aemo.com.au/mpi/mpi-ui/reserveCapacity/annual_auction.action	Removed from WEMS and will not be replaced in the RCM portal. If an auction is required AEMO will manually manage this process.
Long Term SPA	https://wems.aemo.com.au/mpi/mpi-ui/reserveCapacity/annual_spa.action	Removed from the WEM Rules.



Description	WEMS Link	Comments
Capacity Credits and Obligations	https://wems.aemo.com.au/mpi/mpi-ui/reserveCapacity/annual_capacitycreditsandobligations.action	For Capacity Years up to and including the 2015 Capacity Year, Capacity Credit information can be found on the AEMO website ³ . For the 2016 Capacity Year onwards, Capacity Credits will continue to be published on the AEMO website and supported by a new user interface in the RCM portal.

3.2 Reserve Capacity Facility details

Reserve Capacity Facility details previously displayed in Facility Registration > Facility Details has been disabled and replaced in the RCM portal. The following table describes the Reserve Capacity Facility details which were disabled in this release.

Description	Comments
Facility Capacity Credit information	Removed from WEMS and replaced in the RCM Dashboard and Facility Management section of the RCM portal.
Facility upgrade	Facility upgrades have been disabled from WEMS and replaced in the Facility Management section of the RCM portal. Upgrades prior to the 2017 Capacity Year will no longer be visible.
Facility upgrade change requests	Facility upgrade change requests to update a Reserve Capacity status has been disabled in WEMS. Reserve Capacity Status information can now be viewed in the Facility Management section of RCM. To change an upgrade's Reserve Capacity Status contact Reserve Capacity (WA).

3.3 Market Window Status

The Market Window Status displayed on the WEMS Market Summary Dashboard will no longer include Reserve Capacity event details. To view the opening and closing dates of Reserve Capacity events refer to the RCM portal and select the relevant Reserve Capacity tab.

³ <http://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Reserve-capacity-mechanism/Assignment-of-capacity-credits>



4. RESOLVED ISSUES

	Reference	Summary	Resolution
●	RCM-1523	Upgrade's Capacity Credits were not displayed on the RCM Dashboard.	The Capacity Credits assigned to an upgrade are now combined with the parent Facility's Capacity Credits and displayed on the RCM Dashboard.
●	WEMS-6736	There is currently a limitation of 1,000 characters in a Market Advisory sent by AEMO.	Limit for characters in a Market Advisory sent by AEMO has been changed to 4000.
●	WEMS-6732	The display of RC Test Results in MOP was limited to the most recent test result for a Facility in the testing cycle.	The RC Test Results now display all test results for a Facility in the testing cycle.
●	WEMS-6712	Unable to set the Commercial Operation date for a transferred facility to a date prior to the transfer date.	The setting of the Commercial Operation date is now independent of the transfer date.
●	WEMS-6206	The underlying version of the Oracle database was updated to 12C.	The WEMS code was updated to be compatible with the new version of the database.
●	AS-5191	The System Management Data Report for Facility SCADA End of Interval data was incorrectly returning data for certain participants as an aggregated portfolio value instead of the documented facility values.	A new version (v2.3) of the web service has been created which returns the documented facility values for all participants. ⁴ The previous version (v2.2) continues to be available.
●	RCM-1576	Some RCM settlement files were not visible via the MPI Settlements Portal for certain Market Participants.	The full set of RCM settlement files are now available via the MPI Settlements Portal.

Status

●	Internal changes
●	Minimal or no impact to Market Participants
●	Needs Market Participants' attention. Potentially requires system or operational procedure changes.

⁴ Refer to section 10.5 of the updated WEMS Report Specification, available at https://www.aemo.com.au/-/media/Files/Electricity/WEM/Participant_Information/Guides-and-Useful-Information/AEMO--WEMS-Report-Specification.pdf



ABBREVIATIONS

Abbreviations

Abbreviation	Expanded name
2016 Amending Rules	Wholesale Electricity Market Amending Rules 2016 made by the Minister under regulation 7(4) of the Electricity Industry (Wholesale Electricity Market) Regulations 2004 as published in the Government Gazette on 31 May 2016
AEMO	Australian Energy Market Operator
AEMO website	http://www.aemo.com.au/
CRC	Certified Reserve Capacity
CSV	Comma Separated Value
DSP	Demand Side Programme
MOP	Market Operation Portal
MPI	Market Participant Interface
MW	Megawatt
NSG	Non-Scheduled Generator
Public Data Site	The data repository website for the WEM - http://data.wa.aemo.com.au/
RC	Reserve Capacity
RCM	Reserve Capacity Mechanism
WEM Rules	Wholesale Electricity Market Rules
WEMS	Wholesale Electricity Market System
XML	eXtensible Markup Language