



WEMS 3.30 and RCM 1.11 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) 3.30 (Build 3.30-1459) release as at the date of publication.

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1. Introduction

1.1 Overview

These are the release notes for the Wholesale Electricity Market System (WEMS) 3.30 and RCM 1.11 releases.

This WEMS and RCM release includes:

- Changes required to implement RC_2017_06 – Reduction of the prudential exposure in the Reserve Capacity Mechanism.
- Changes required to implement Market Procedure: Prudential Requirements Change AEPC_2019_03

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

Supporting documentation

The following document has been updated for this release and should be read in conjunction with these release notes:

- 1) WEMS User Guide
(Available in WEMS MPI > Help > User Guide)
- 2) [WEMS Reports and Web Service Specification](https://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Participant-information/Guides-and-useful-information)
(<https://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Participant-information/Guides-and-useful-information>)
- 3) Swagger Documentation:
 - a. [Production](https://wems.aemo.com.au/rcm/api/docs/) (<https://wems.aemo.com.au/rcm/api/docs/>)
 - b. [Market Trial](https://wems-mkt.aemo.com.au/rcm/api/docs/) (<https://wems-mkt.aemo.com.au/rcm/api/docs/>)
- 4) AEMO RCM Settlement Calculation documentation (Aemo.Rcm.Settlement.html)
(Available in WEMS MPI > Settlements > Download Files)
- 5) IRCR Calculation documentation (IRCR-CCS_v1.2.xlsm)
(Available in WEMS MPI > Settlements > Download Files)
- 6) [Final Rule Change Report for RC 2017_06](https://www.erawa.com.au/rule-change-panel/market-rule-changes/rule-change-rc_2017_06)
(https://www.erawa.com.au/rule-change-panel/market-rule-changes/rule-change-rc_2017_06)
- 7) [Market Procedure Change Proposal AEPC 2019_03](https://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Procedures/Procedure-changes/AEMO-Procedure-Change-Proposals)
(<https://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Procedures/Procedure-changes/AEMO-Procedure-Change-Proposals>)

Items 1 to 5 will be made available to market participants when WEMS 3.30 is released to Market Trial on 27/03/2019.

1.2 Version Summary

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

Table 1 WEMS and RCM Version Summary

Application	Current version	New version
WEMS	3.29 (Build 1457-1)	3.30 (Build 1459)
RCM (Operations)	1.10 (Build 2871-6)	1.11 (Build 2970)

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

1.3 Background

On 27/06/2018 the Minister for Energy approved RC_2017_06 – Reduction of the prudential exposure in the Reserve Capacity Mechanism.

This rule change removes an identified, unaccounted for prudential exposure in the RCM through:

- a change to the responsible party reference month in the IRCR calculation from month n-3 to month n, so that Market Customers no longer incur IRCR liabilities for any future periods;
- amendments to the Capacity Credit Allocation process, to allow Capacity Credit Allocations to be made by Market Generators and accepted by Market Customers prior to the Market Customers incurring the IRCR liability, where these Capacity Credit Allocations cannot be reversed by AEMO without consideration of the prudential implications; and
- consequential amendments to support the implementation of the two changes outlined above.

The Final Rule Change Report for RC_2017_06 also noted that AEMO intends to progress a Procedure Change Proposal to amend the Market Procedure: Prudential Requirements to improve the responsiveness of the Outstanding Amount calculation. AEMO has since progressed this Market Procedure Change under AEPC_2019_03.

AEMO established the Reduction of Prudential Exposure (RoPE) project to implement RC_2017_06 and changes to the Outstanding Amount equation as outlined in Market Procedure: Prudential Requirements change AEPC_2019_03. This is the second release that contains functionality from the RoPE project as detailed in the following sections.

2. RoPE Functionality

2.1 Capacity Credit Allocations

New functionality (through GUI and web services) has been developed to allow Market Participants to submit, withdraw, accept, reverse and amend Capacity Credit Allocations according to the new WEM Rules. This functionality can be accessed through the GUI under the Reserve Capacity tab, as illustrated in the screenshot below, and via web services. For more information please refer to the WEMS User Guide and Swagger documentation.

Home	CRC Application	Security	Trade Declaration	CDA	NTDL	Capacity Allocation	IRCR	Peak Intervals
2014 - 2015	2015 - 2016	2016 - 2017	2017 - 2018	2018 - 2019	2019 - 2020	2020 - 2021	2021 - 2022	2022 - 2023

Capacity Credit Allocations (CCA)

Trading Month

CCA Window

Submission Window	01/02/2019 17:00 - 24/05/2019 17:00	Acceptance Window	01/02/2019 17:00 - 24/05/2019 17:00
	Closes in 3 months		Closes in 3 months

New CCA Submission

Market Customer	Allocation	Actions
<input type="text"/>	<input type="text"/>	<input type="button" value="Submit"/> <input type="button" value="Clear"/>

CCA Summary

Market Generator	
Bilaterally Tradeable Capacity Credits	327.8
CCAs submitted pending Market Customer acceptance	0
CCAs made and accepted	0
CCAs made pending reversal	0
CCAs made requiring amendment	0

<input type="checkbox"/> Id	<input type="checkbox"/> Generator	<input type="checkbox"/> Customer	<input type="checkbox"/> Original CCA	<input type="checkbox"/> Current CCA	<input type="checkbox"/> Status	<input type="checkbox"/> Sub-Status	<input type="checkbox"/> Actions
No data							

Figure 1 Capacity Credit Allocations GUI

New functionality has been developed to notify Market Participants by email of actions relating to a Capacity Credit Allocation according to the new WEM Rules. These emails are sent to the Market Participant’s Main Contact and any user who has performed an action on the Capacity Credit Allocation.

2.2 IRCR

The change to the responsible party reference month in the IRCR calculation from month n-3 to month n will change the calculation results of the IRCR; however, this has been achieved without changes to WEMS or settlement artefacts. Market Participants will see no changes to functionality.

New functionality has been developed to allow participants to view (through GUI and web services) the five IRCR calculations for each Trading Month (Indicative, Initial, Adjustments 1, 2 & 3). New IRCR PIRs and Logs

will no longer be available through the Settlements Portal in WEMS MPI. This new functionality can be accessed in WEMS MPI under the Reserve Capacity tab as shown in the screenshot below.



Figure 2 IRCR GUI

The five runs of IRCR has required a change to the naming convention of IRCR PIR and IRCR Log files. Examples of the new naming conventions are:

- IRCR PIR IRCR_PIR_WPGENER_F_2017-08-31(74)_Indicative.csv
- IRCR Log RCR_WPGENER_2017-08-31(74)_Indicative.csv

For more information please refer to the WEMS User Guide and Swagger documentation.

Some changes have been made to the following IRCR variables in accordance with Rule Change RC_2017_06:

Before RC_2017_06	After 2017_06	Comment
RR	RCR	Old RR and New RCR have the same meaning
TACC	TACC	No change
TADSMCC	TADSMCC	No change
RR_Transitional = min(RR, TACC – TADSMCC)	RR = min(RCR, TACC – TADSMCC)	Old RR_Transitional has been renamed to new RR and the formula has been updated to reflect the change in name from old RR to new RCR.
	FL_RCR	FL_RCR did not exist previously as FL was taken as an input.
FL	FL = FL_RCR x RR / RCR	FL has same meaning, but now explicitly defined as formula in Appendix 5. Previously, it was taken as an input that had already been adjusted prior to applying Appendix 5.

Figure 3 IRCR Variable Changes

Corresponding changes have been made to the IRCR PIR and IRCR Calculation Specification Spreadsheet (CSS) along with other minor changes to correct units and rule references. The effective from and effective to dates in the IRCR Calculation Specification Spreadsheet guide the user to changes.

For more information please refer to the WEMS Report Specification and IRCR CSS.

2.3 RCM Settlements

Changes have been made to RCM Settlement variables (found in the RCM PIR) to:

- allow Market Customers to receive more Capacity Credit Allocations than their IRCR and consequential TRCC changes, in accordance with Rule Change RC_2017_06.
- accommodate minor changes to SPA Capacity Credits, in accordance with Rule Change RC_2017_06.

Corresponding changes have been made to the RCM PCS. The effective from and effective to dates in the RCM PCS should guide the user to changes.

For more information please refer to the RCM Settlements PCS.

2.4 Prudentials

The Outstanding Amount calculation has been amended as per changes to Market Procedure: Prudential Requirements under AEPC_2019_03. Correspondingly, Market Participants have now been provided with additional information to reconcile the calculation in the Prudential screen, specifically:

- A download Capacity Credit Allocation (CCA) button has been provided to download information relating to Capacity Credit Allocations used for the Outstanding Amount calculation
- The STEM Historical Daily and NSTEM Historical Daily values are no longer populated, as the Outstanding Amount is not a fixed daily amount for all exposed days.
- STEM Exposure and NSTEM Exposure fields have been added
- Three additional columns have been added to provide Market Participants with additional information: Invoiced Not Paid, Prepayment and Credit Limit.
- Days remaining in STEM/NSTEM cycles have been replaced with STEM/NSTEM days exposed, which are more useful to verify the Outstanding Amount calculation.

This new functionality can be accessed in WEMS MPI under the Settlements tab as shown in the screenshot below.

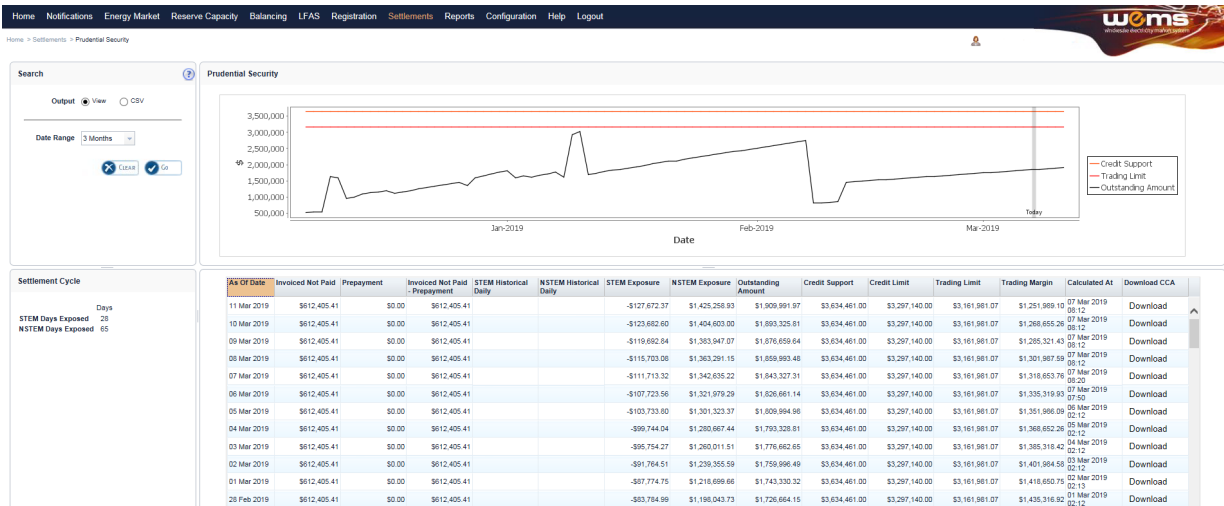


Figure 4 Prudentials GUI

The PRM_Indicator Report has been deprecated as shown in screenshot below.

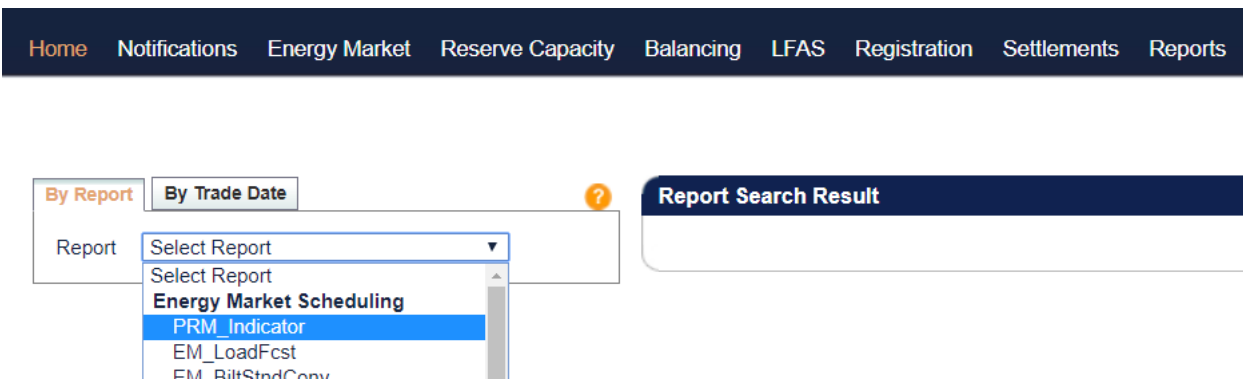


Figure 5 Deprecation of Prudentials Report

2.5 Other Changes for Market Participants

Market Customers will receive an email notification after an NTDL has been accepted/rejected by AEMO. This email will be sent to the Market Participant's Main Contact and the user that submitted the NTDL application.

2.6 AEMO Changes

New AEMO functionality has been introduced to complement the changes seen by Market Participants. Some examples of changes introduced are listed below:

- AEMO will receive a notification if a request to transfer a Facility will result in the Market Generator's Capacity Credit Allocations exceeding their bilaterally tradeable Capacity Credits after the transfer.
- AEMO to be reminded of deadlines to publishes IRCR
- Ability for AEMO to import Settlements Cycle Timeline into WEMS to drive future notifications/functionality.

3. Market Trial

Market Trial for this release commences 27 March 2019. Market Participants can provide any feedback in relation to this trial to wa.operations@aemo.com.au.

3.1 Market Trial Period

The following table summarises the actions that AEMO will undertake during the market trial period to support market participant testing. The recommended market participant actions are summarised in the table.

Table 2 Actions during Market Trial

Date	AEMO Actions	Market Participant Actions
7 March 2019	AEMO provides sample IRCR and RCM Settlement artefacts	Test sample artefacts in Market Participant systems
29 March 2019	Publish Indicative IRCR for April 2019 (new rules)	Download / view results
1 April 2019	Open CCA Window for March 2019 (current rules)	Market Participants can test current systems remain unchanged (existing rules)
1 April 2019	Open CCA Window for April 2019 (new rules)	Activities 1-7 below
5 April 2019	Close CCA Window for March 2019 (current rules)	-

Date	AEMO Actions	Market Participant Actions
8 April 2019	Simulate Market Procedure: Prudential Requirement effective (new procedure)	Observe changes to Outstanding Amount and the link to Capacity Credit Allocations Activities 8-9 below
17 April 2019	Publish Initial IRCR for April 2019 (new rules)	Download / view results
26 April 2019	Close CCA Window for April 2019 (new rules)	-

3.2 Suggested Testing Activities for Market Participants for Capacity Credit Allocations

AEMO recommends Market Participants to perform the following testing as a minimum to normal Market Participant activities by co-ordinating testing with their usual Capacity Credit Allocation counterparties:

1. Market Generator to submit a Capacity Credit Allocation
2. Market Generator to withdraw a Capacity Credit Allocation
3. Market Customer to accept a Capacity Credit Allocation
4. Market Generator to request a reversal of a Capacity Credit Allocation
5. Market Generator to cancel request for the reversal of a Capacity Credit Allocation
6. Market Customer to request for the reversal of a Capacity Credit Allocation
7. Market Generator to amend its Capacity Credit Allocations after the termination of Capacity Credits, resulting in its Capacity Credit Allocations made exceeding its bilaterally tradeable Capacity Credits.
8. Market Generator to simulate a situation where a negative Trading Margin prevents the submission or acceptance of a Capacity Credit Allocation
9. Market Customer to simulate a situation where a negative Trading Margin prevents the reversal of a Capacity Credit Allocation

AEMO can assist with testing where possible, upon request. Some potential actions AEMO may take include:

- Terminating Capacity Credits to assist in simulating a situation where a Market Generator's Capacity Credit Allocations made exceed its bilaterally tradeable Capacity Credits.
- Reducing a Market Participant's Credit Support to assist in simulating a negative Trading Margin for the purposes of testing the submission, acceptance or reversal of a Capacity Credit Allocation.

4. Resolved Issues

In addition to the RoPE functionality above, the following internal AEMO issues have been resolved in this release.

Table 3 Resolved Issues

Reference	Summary	Resolution
● RCM-1386	The current implementation only has a single variable for Operating Instructions (OI) issued to a DSP for dispatch. The Market Rules (6.17.6D(b)) define that there are 4 types of OI that can be issued to a DSP and are used to reduce the Deemed DSM Dispatch (DDSMD) when they are present.	4 new input variables will be created for Operating Instructions for a DSP to meet requirements for: <ul style="list-style-type: none"> • Network Control Service Contracts; • Ancillary Service Contracts; • Reserve Capacity Test; • Supplementary Capacity Contract. This implementation matches the existing RCM PCS.
● RCM-1387	The RCM Settlement data loader for a DSP Operating Instruction must be modified to handle the 4 new variables created in RCM-1386.	Update query to accommodate 4 new variables created in RCM-1386. This implementation matches the existing RCM PCS.

Table 4 Status Legend

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

Abbreviations

Table 5 Abbreviations

Abbreviation	Expanded name
AEMO	Australian Energy Market Operator
MPI	Market Participant Interface
RCM	Reserve Capacity Mechanism
WEMS	Wholesale Electricity Market System