RCM3 UPDATE

July 2017



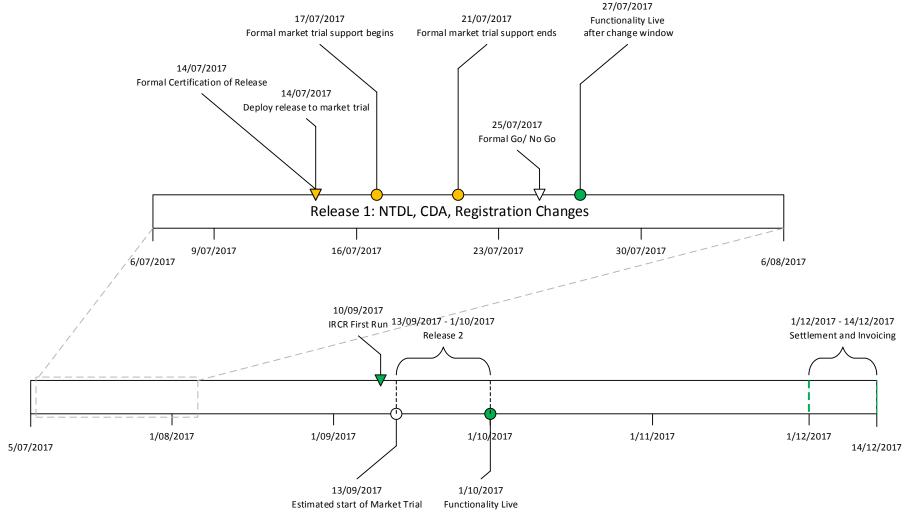
AGENDA



- High Level Timetable
- Release 1
 - Showcase
 - Market Trial
- Release 2
 - Proposed Showcases
- Release 3
 - Internal to AEMO no impact on Participants
- Procedure updates status
- AOB

RCM TIMELINE





Release 2: RCOQ,CC Allocation, RD, RC Performance (EPOH), Day ahead NBDMO, Public Data Site, REPO Calculation, Manage Capacity Credits, RC Testing

SHOWCASE FOR RELEASE 1



- Following today's Forum we will showcase the functionality for release 1.
- Held at the end of this Forum and you are welcome to stay if relevant.
- Release notes issued by Market Operations w/c 10/7.

MARKET TRIAL



- Release 1 will be deployed to Market Trial on 14 July.
- Market Trial support for the release will be from the 17th to 21st.
- During this period, Market Participants are encouraged to test all functionality but in particular NTDL and CDA.
- Standing Data changes are minor and discussed in the release notes. Market Operations will liaise with Participants to outline requirements for 1 October.
- AEMO will be available to assist with testing and to perform any AEMO actions during testing.
 - For NTDL please contact <u>wa.operations@aemo.com.au</u>
 - For CDA please contact <u>wa.capacity@aemo.com.au</u>

MARKET TRIAL - NTDL



Functionality	Description		
Application for NTDL	 Participant creates an application for NTDL. Participant attaches "Intervals consuming below capacity" CSV and "Evidence" files to the application. 		
Interaction with AEMO	 Participant can "Submit" an application for NTDL. Participant can "Withdraw" an application. AEMO can "Request more information" from the Participant. Participant can provide additional information. 		
Review Results	Participant can review the results of the NTDL calculation once AEMO has accepted the calculation.		

Test data in the system will include all information for the current capacity year to June. We can accept submission for October but cannot run calculations until data is available. Participants will be to view historical results in Market Trial.

MARKET TRIAL – CDA



Functionality	Description
Consumption Deviation Application	Create a CDA for a single NMI within a DSP. Participant can attach a "Maintenance Interval" CSV and "Evidence" files to the Application.
Interaction with AEMO	Participant can "Submit" an Application. AEMO can "Request more information" from the Participant. Participant can "Withdraw" an Application.
Review CDA Results	Participant can review the status of any submitted CDA.

RELEASE 2



- There will be a release in October with Market Trial release in mid September.
- Propose holding four showcases in early September.
 - Scheduled Generator Showcase;
 - Non Scheduled Generator Showcase;
 - DSP Showcase;
 - Market Customer Showcase.
- These will provide a demonstration on the functionality available to each of these types of Participant.
- We will also present information on the recommended participant testing approach at that time.
- Approach will be tailored to the type of Participant and will allow for testing of the tasks relevant to that Participant type.

RELEASE 3



- There will be a release in November.
- This only impacts AEMO and rolls out the final changes for settlement and invoicing.
- No change to how Market Participants access settlement and invoice information.
- No showcases or Market Participant formal testing is therefore proposed.

MARKET PROCEDURES FORECAST UPDATE



PCP Change ID	Document	Procedure Change Proposal published	Submissions due on Procedure Change Proposal	Procedure Change Report published
PC_2017_01	Determination of Expected DSM Dispatch Quantity and DSM Activation Price	Completed	Completed	Completed
AEPC_2017_03	Determination of DSM Dispatch Payment Tranches and Adjustments	Completed	Completed	9/09/2017
AEPC_2017_04	Certification of Reserve Capacity	Completed	25/07/2017	10/09/2017
AEPC_2017_05	Individual Reserve Capacity Requirements	6/07/2017	3/08/2017	15/09/2017
AEPC_2017_06	Undertaking the Long Term PASA and conducting a review of the planning criterion	6/07/2017	3/08/2017	15/09/2017
AEPC_2017_09	Reserve Capacity Performance Monitoring	6/07/2017	3/08/2017	15/09/2017
AEPC_2017_10	<u>Dispatch</u>	27/07/2017	24/08/2017	10/10/2017

ANY QUESTIONS, COMMENTS?



RELEASE 1 SHOWCASE



RCM3 STAKEHOLDER FORUM UPDATE

July 2017





AGENDA



- Temperature De-rate Curve
- DSM Standing Data changes

TEMPERATURE DE-RATE CURVE



- This release has standardised the Temperature De-Rate curve format required to be submitted under Appendix 1(b)(iv). This de-rate curve will be used by AEMO to perform Reserve Capacity Tests and to determine the Reserve Capacity Obligation Quantity.
- The file format will be in CSV and will be validated to ensure it meets the requirements of these fields:

Field	Description
facility_identity	This is the facility shortname used to identify the facility in which the temperature de-rate curve relates to.
fuel_type	This describes the fuel type for which the de-rate curve relates to. Valid values are L – Liquid and N – Non-liquid.
temperature	This describes the temperature for which the facility capability relates to. This must include temperature ranges from 0 to 45 degrees Celsius in 0.1 increments.
facility_capability	This describes the MW capability of the facility at the given temperature. This is to be specified to three decimal places.

 Market Participants are required to review and update their Standing Data in WEMS prior to 1 October 2017 to ensure a Temperature De-Rate curve is nominated in the required format.

DSM STANDING DATA



Demand Side Program		
Data Field	Previous Effective Data	New Effective Data
Facility Name		
Evidence that the communication and control systems required by clause 2.35 are in place and operational (Appendix 1.(h).ii) *	20Protocol%	□ 20Protocol%2 ×
Maximum curtailable load (MW) (Appendix 1.(h).iii) *	10.3	16.3
Maximum duration of any single curtailment (minutes) - peak (Appendix 1.(h).iv) *	4 hours	0 0 0 4 0 HO 0 MO 0 S
Maximum duration of any single curtailment (minutes) - off peak (Appendix 1.(h).iv)		0 D 0 H 0 M 0 SClear
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)	5 413	5 413
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 \$\text{MWh}\$ to a precision of \$0.01\text{MWh} (Appendix 1.(h).vi.2) *	5 413	5 413
For a Demand Side Programme that is registered to a Market Participant, data comprising an Extra Consumption Decrease Price for Peak Trading Intervals where these prices must be not less than the Minimum STEM Price, and not more than the DSM Activation Price, and must be expressed in units of \$IMWh to a precision of \$0.01/MWh (Appendix 1.(h).vi.3)	3	S DSM Activation Price
For a Demand Side Programme that is registered to a Market Participant, data comprising an Extra 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 DSM Activation Price, and must be	3	S DSM Activation Price
expressed in dilics of shifting a precision of solution (Appendix 1.(n), vi.4)		
Minimum response time before the Demand Side Programme can begin to respond to an instruction from System Management to change its output (Appendix 1.(h).vii) *	4 hours	4 0 H O 0 M
Maximum number of hours per year the Demand Side Programme can be curtailed (Appendix 1.(h).viii)	24	24
The capability to provide real-time telemetry (Appendix 1.(h).viii)	0	0
Details of the real-time telemetry capabilities of the Facility (Appendix 1.(h).viii)	Otelemetry%20capabilities.docx	○ Otelemetry%20capabilities.docx
For Business Days, the start interval of availability for dispatch (Appendix 1.(h).ix) *	12:00	12 0 H O 0 M
For Business Days, the end interval of availability for dispatch (Appendix 1.(h).ix) *	19:30	19 0 H 30 0 M
For Non-Business Days, the start interval of availability for dispatch (Appendix 1.(h).ix)		H O M Clear
For Non-Business Days, the end interval of availability for dispatch (Appendix 1.(h).ix)		H M Clear
Any restrictions on the availability of the Demand Side Programme (Appendix 1.(h).x) *	□ UpdatingStandingPrices.doc	UpdatingStandingPrices.doc 🗶
The normal ramp up rate as a function of output level, if applicable (MW/Min) (Appendix 1.(h).xi)	0	0
The normal ramp down rate as a function of output level, if applicable (MW/Min) (Appendix 1.(h).xi)	0	0
The DSP ramp rate limit for each trading interval, as a function of output level, if applicable (MW/Min) (Appendix 1.(h).xi)		
The rate at which the facility is expected to increase its consumption when dispatch ends, as a function of output level, if applicable (MW/Min) (Appendix 1.(h).xi)		
The emergency ramp up rate, if applicable (MW/Min) (Appendix 1.(h).xii)	0	0
The emergency ramp down rate, if applicable (MW/Min) (Appendix 1.(h).xii)	0	0
Maximum number of times that the Demand Side Programme can be curtailed during the term of its Capacity Credits (Appendix 1.(h).xiii) *	6	6
Forecast consumption profile or profiles of the facility (Appendix 1.(h).xv)		a United New Document