# CERTIFICATION OF RESERVE CAPACITY (CRC) STAKEHOLDER TECHNICAL WORKSHOP

27 May 2016



#### **AGENDA**



- Disclaimer and Scope
- Background
- CRC overview
- Responsibilities
- Key Dates for 2015 CRC process
- CRC application submission process
- AEMO assessment process for different Generation types
- Bilateral Trade Declaration process
- Committed Status application
- Reserve Capacity Security requirements
- Questions & feedback

#### DISCLAIMER AND SCOPE



#### **Disclaimer**

This presentation has been developed in line with the current rule drafting available on the PUO website.

#### Scope

Purely technical and will cover

- Changes to Certified Reserve Capacity submission process in WEMS
- Supporting documentation required for a valid submission
- Assessment process

#### **BACKGROUND**



#### March 2015 – Ministerial direction received to defer

- Aspects of the 2015 Reserve Capacity Cycle by one year.
  - > 2015 CRC process being held in 2016

#### March 2016 – PUO requests AEMO to defer

- Opening of 2015 certification window from 1 May 2016 to 1 June 2016
- Aspects of the 2016 Reserve Capacity cycle
  - > 2016 CRC process to be held in 2017

#### **CRC OVERVIEW**



The CRC process is a key aspect of the RCM.

#### Associated Rules and Procedures

- MR 4.9, MR 4.10 & MR 4.11
- Draft Market Procedure (MP) for Certification of Facilities
  - AEMO has updated the current MP based on the draft rules released by the PUO.
  - In the absence of final rules, AEMO cannot publish this updated version without following the current procedure change process.
  - AEMO will publish the updated draft MP following release of the final rules, have a consultation period following which submissions will be considered in preparing the final MP that will be published on the website.

#### **RESPONSIBILITIES**



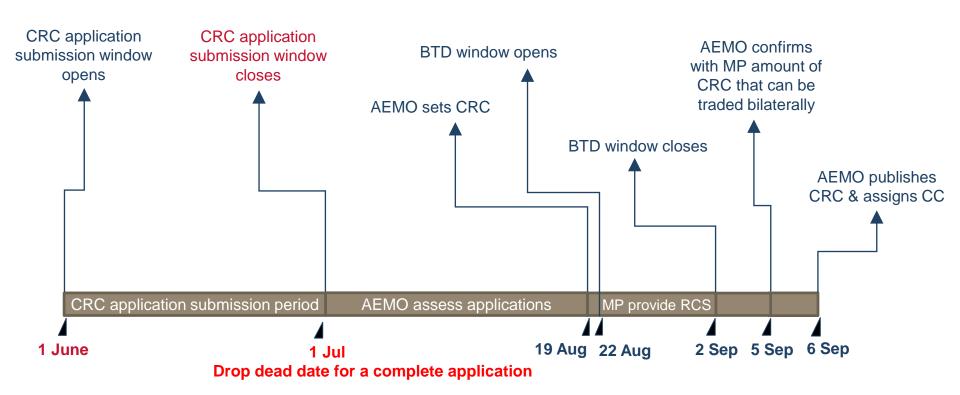
Market Participants provide information required for the CRC as per MR 4.10

AEMO assesses and sets CRC as per MR 4.11

#### **KEY DATES FOR 2015 CRC PROCESS**



- Deferral of 2016 Reserve Capacity Cycle
- A shorter 2015 CRC submission window



## SUBMISSION PROCESS – WEMS INTERFACE



New interface – applications submitted via WEMS only

- Central repository
- No email submissions
- Applications to be submitted on a per Facility basis
- CRC applications can only be lodged during the CRC application window [MR 4.9.1].
- Must include supporting information required under MR
   4.10.1. If any information required under MR 4.10.1 is not provided, the <u>application</u> will be <u>deemed invalid and will not be assessed</u>
- If a resubmission for a Facility is made during the CRC application window, all supporting documentation must be re-uploaded

#### SUBMISSION PROCESS - CONTINUED



Three submission requirements for a Facility CRC application –

- CSV submission
- Excel application
- Supporting documentation

Note: The fields in the CSV submission will be validated in WEMS against the MR requirements.

Pre-requisites for WEMS submission

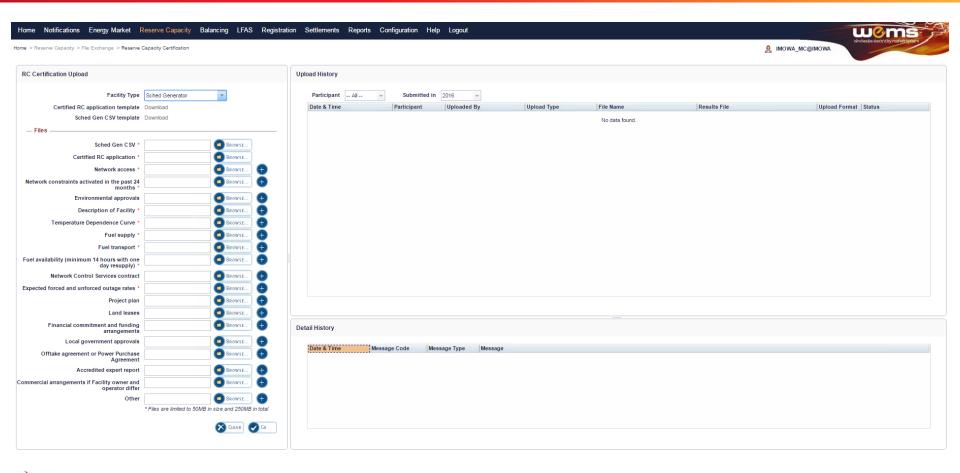
- Ability to access WEMS
- Place holder in WEMS as a Candidate for Registration (Proposed Status)

#### SUBMISSION PROCESS - CONTINUED



- An upgrade to a facility must be created in the system prior to CRC submission
- AEMO will not assign CRC to a Facility that is not expected to be a Registered Facility by the time its Reserve Capacity Obligations commence for the relevant Reserve Capacity Cycle
- CSV submissions for Scheduled Generators (SG) and Demand Side Programmes (DSPs) have changed since last year
  - Change details can be found in the WEMS 3.16 release notes on AEMO website (http://wa.aemo.com.au/docs/default-source/defaultdocument-library/wems-3-16-release-notes-v1-1.pdf?sfvrsn=0)
  - The new template can be downloaded from MPI RC Certification submission display

## SUBMISSION PROCESS – WEMS INTERFACE SG



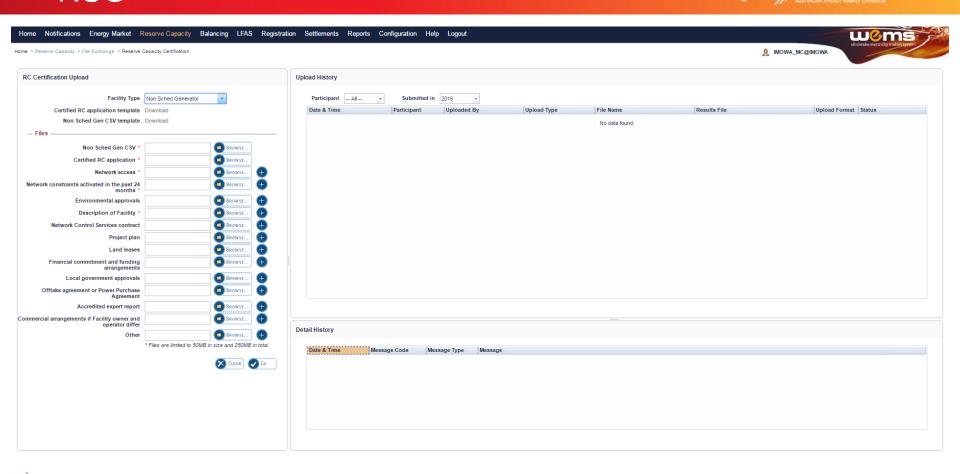
AEMO

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Balancing Gate Closure at: 27/04/16 11:00 for: 27/04/16 13:00 Portfolio Balancing Gate Closure at: 27/04/16 11:00 for: 27/04/16 15:00 Load Fc WEMS Market Time 10:31:53

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## SUBMISSION PROCESS – WEMS INTERFACE NSG

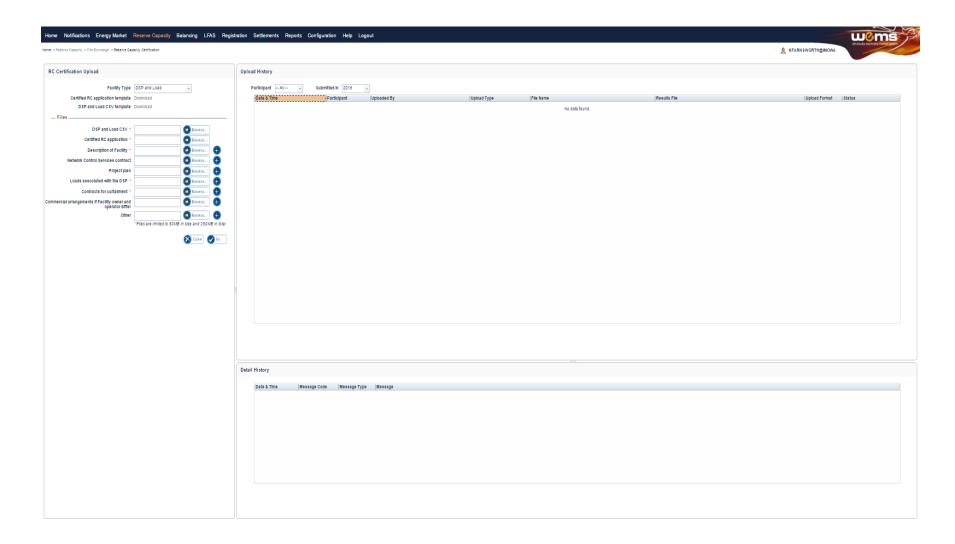


Example 15:00 for: 27/04/16 20:00 - 28/04/16 01:30 Balancing Forecast Load 27/04/16 13:1: 1993.867 A 13-2: 2004.781 A 14-1: 2015.095 A 14-2: 2032.895 A 15-1: 2081.530 A 15-2: 2096.986 A 16-1: 2145.211 A 16-2: 2216.931 A Last LFMO/Prices Published at 27/04/16 10:30 Last Forecast BMO/Prices Publishe WEMS Market Time 10:33:25

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## SUBMISSION PROCESS – WEMS INTERFACE DSP

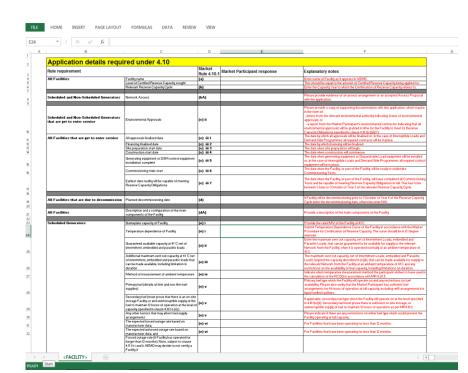


## SUBMISSION PROCESS – WEMS INTERFACE CSV AND EXCEL FILE

- CSV application feeds into AEMO database
  - WEMS MPI "User Guide" available within WEMS

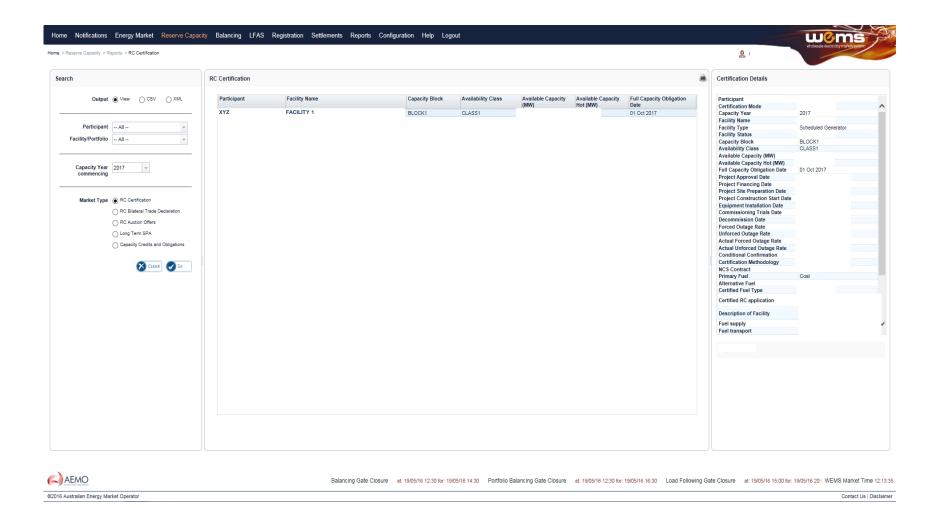


CRC application (Excel)



## SUBMISSION PROCESS – WEMS INTERFACE VALIDATING CRC APPLICATION







Supporting information	What AEMO requires	Requirement
Certified Reserve Capacity application	Market Rule reference: 4.10  An application spreadsheet for Certification of Reserve Capacity that lists all the necessary information to be filled by the Market Participant for an application to be assessed by AEMO.	Mandatory
Network access	Market Rule reference: 4.10.1(bA)  Evidence that the Facility has a network access arrangement with Western Power. The contract must be attached in full and may be in the form of an Electricity Transfer Access Contract (ETAC), Network Access Agreement (NAA), Access Offer, Preliminary Access Offer, or Access Proposal. All documents must clearly show the expiry date, the Declared Sent Out Capacity (DSOC), details of any network access constraints such as runback schemes, and include all amendments and other changes. All documents must be executed by both Western Power and the entity responsible for the Facility.	
Network constraints activated in the past 24 months	Market Rule reference: 4.10.1(bA)  Details of any activation of runback schemes or other binding network constraints over the previous 24 months, including frequency of occurrence, curtailment amount, time and date of occurrence, and duration of occurrence.	Mandatory
Description of Facility	Market Rule reference: 4.10.1(dA)  Description and configuration of the main components of the Facility. This must include generator nameplate rating and age along with any major upgrades that have been performed. For DSPs, details of the operational process or procedure of the Facility's ability to reduce demand in the event of a request from System Management.	Mandatory



Supporting information	What AEMO requires	Requirement
Temperature Dependence Curve	Market Rule reference: 4.10.1(e)(i)  Manufacturer's technical specifications or as determined by an independent engineering firm.	Mandatory
Fuel supply	Market Rule reference: 4.10.1(e)(v)  Evidence that the Market Participant has secured sufficient fuel supplies (diesel, coal or gas) to operate the Facility and, if applicable, its fleet of Facilities. This may include demonstrated ability to procure additional fuel through the spot market. Full contracts must be provided which include full details of the fuel quantity to be delivered, signatory pages, expiry dates as well as any restrictions on quantities (for example, take or pay clauses, maximum contract quantities). Price information may be redacted.	Mandatory
Fuel transport	Market Rule reference: 4.10.1(e)(v)  Evidence that the fuel being procured by the Market Participant is able to be delivered to the Facility. Full contracts must be provided and include contract expiry dates and delivery lead times. A Market Participant may demonstrate its ability to source transport through the spot market. Price information may be redacted.	
Fuel availability (minimum 14 hours with one day resupply)	Market Rule reference: 4.10.1(e)(v)  Evidence that the Facility has sufficient fuel supplies, either through an on or off-site storage facility or delivered through a gas pipeline, to operate continuously for 14 hours at maximum output, with one day resupply. This may include evidence of fuel storage tanks along with volumetric quantities, minimum stockpile levels and data on fuel used per hour of operation (for example, GJ/MWh). Where the Facility has primary and alternative fuels, outline the process for changing from one fuel to another and the fuel(s) which the Facility is to use in respect to an application for CRC.	Mandatory



Supporting information	What AEMO requires	Requirement
Expected forced and unforced outage rates	Market Rule reference: 4.10.1(e)(vi), 4.10.1(e)(vii) and 4.11.1(h)  For new Facilities that have not operated in the last 12 months, the forced and unforced outage rate of the Facility based on manufacturer data. For existing Facilities that have operated for at least 12 months, the forced and unforced outage rates in the past 36 months.	Mandatory
Environment approvals	FOR NEW FACILITY ONLY.  Market Rule reference: 4.10.1(c)(ii)  Evidence that any necessary environmental approvals have been granted or evidence supporting the Market Participant's expectation that any necessary environmental approvals will be granted in time to have the Facility meet its Reserve Capacity Obligations by the date specified in clause 4.10.1(c)(iii)(7) of the Market Rules.	Optional
Network Control Services contract	Market Rule reference: 4.10.1(j)  If applicable, a full copy of any Network Control Services contract, specifying the terms and conditions. Price information may be redacted.	Optional
Project plan	FOR NEW FACILITY ONLY.  Market Rule reference: 4.10.1(c)(iii)  Key project dates as outlined in clause 4.10.1.(c)(iii) of the Market Rules.	Optional
Land leases	FOR NEW FACILITY ONLY.  Market Rule reference: 4.10.1(c)(iii)  Details of access rights to land, either through ownership or an appropriate leasing agreement.  Leasing arrangements to include duration of tenure, renewal options and signatory pages.	Optional



Supporting information	What AEMO requires	Requirement
Financial commitment and funding arrangements	FOR NEW FACILITY ONLY.  Market Rule reference: 4.10.1(c)(iii)  Evidence of funding arrangements for the Facility, financial commitment by the Market Participant to a primary equipment supplier (this would usually take the form of a signed contract indicating purchase of the main plant equipment, including penalty clauses associated with non-compliance of the purchase agreement), and formal commitment, including financial approval, on behalf of the company in respect to the project (for example, Board approval).	Optional
Local government approvals	FOR NEW FACILITY ONLY.  Market Rule reference: 4.10.1(c)(iii)  Details of relevant shire approvals to operate a power station.	Optional
Offtake agreement or Power Purchase Agreement	FOR NEW FACILITY ONLY.  Market Procedure reference: Appendix A of Declaration of Bilateral Trades and the Reserve Capacity Auction  Where a Facility is being built primarily to supply energy to one or more foundation customers, evidence that relevant power supply contracts are in place.	Optional
Accredited expert report	FOR FACILITIES LESS THAN 5 YEARS OF OPERATION.  Market Rule reference: 4.10.3  Accredited consultant report required under clause 4.10.3 of the Market Rules. Accredited consultant report required under clause 4.10.3 of the Market Rules.	Optional



Supporting information	What AEMO requires	Requirement
Commercial arrangements if Facility owner and operator differ	A description of the commercial arrangement between entities.	Optional
Other	Any other documentation to support the application.	Optional



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Loads associated with the DSP	A list of all loads, including the National Meter Identifier (NMI), associated to the DSP. Where contracts are not in place, a list of loads (with NMIs) that are intended to be included.	Mandatory
Contracts for curtailment	Evidence of capacity already procured (for example, contracts for load curtailment) or evidence of capacity procurement activity (on a per load basis). Full contracts must be provided and include commencement and end dates, terms outlining curtailment and signatory pages. Price information may be redacted.	Mandatory
Network Control Services contract	Market Rule reference: 4.10.1(j)  If applicable, a full copy of any Network Control Services contract, specifying the terms and conditions. Price information may be redacted.	Optional



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#### COMMITTED STATUS



- New Facilities wishing to be assured Capacity Credits need to apply for Committed Status in WEMS
- AEMO approval decision made prior to BTD
- Made as a separate application to CRC
- Submission must present a case as to how the project has progressed further than a "Proposed" Facility and what irrevocable commitments have been made
- Guidelines for assessing Reserve Capacity Facility status are in Appendix A of Market Procedure: Declaration of Bilateral Trade and the Reserve Capacity Auction

## BILATERAL TRADE DECLARATION (BTD)



Market Participant nominates through a CSV submission in WEMS the amount of CRC that will:

- be made available for the Reserve Capacity Auction;
- is covered by a pre-existing Special Price Arrangement;
- is intended to be traded bilaterally; and
- not be made available.

Note: DSPs may only nominate to trade capacity through AEMO or not make their capacity available.

CSV template is available for download on the Market website

#### BTD CONTINUED



#### Additional reference material can be found in:

- MR 4.14
- Market Procedure: Declaration of Bilateral Trades and the Reserve Capacity Auction

### In order to validate a BTD in respect to a new Facility:

- the Market Participant must provide Reserve Capacity Security
- the Facility must be considered to be in "Committed" status

#### RESERVE CAPACITY SECURITY



Reserve Capacity Security (RCS) is required for all new capacity, including:

- New Facilities
- Existing Facilities applying for an upgrade
- Facilities re-entering into service after significant maintenance

Equals ¼ of the BRCP per MW of Certified Capacity Associated Reference material can be found in

- MR 4.13
- Market Procedure: Reserve Capacity Security

## **QUESTIONS & FEEDBACK**

System Capacity (WA) wa.capacity@aemo.com.au (08) 9254 4300

