

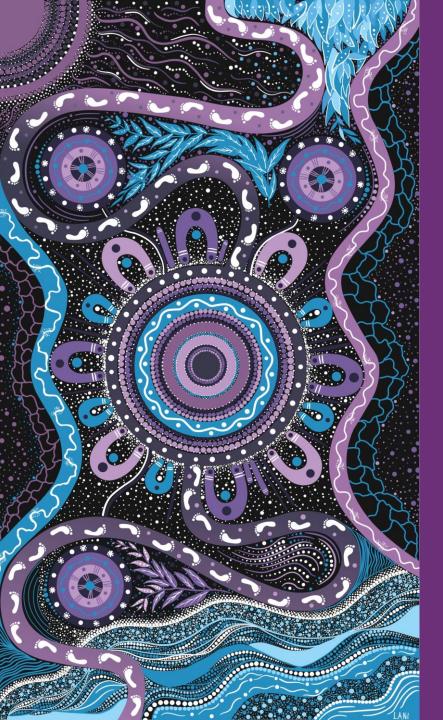
2025 Certified Reserve Capacity Information Session

Flexible Capacity & CRC Submission Demo

16 April 2025

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We acknowledge the Traditional Custodians of the land, seas and waters across Australia. We honour the wisdom of Aboriginal and Torres Strait Islander Elders past and present and embrace future generations.

We acknowledge that, wherever we work, we do so on Aboriginal and Torres Strait Islander lands. We pay respect to the world's oldest continuing culture and First Nations peoples' deep and continuing connection to Country, and hope that our work can benefit both people and Country.

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'Journey of unity: AEMO's Reconciliation Path' by Lani Balzan

AEMO Group is proud to have launched its first Reconciliation Action Plan in May 2024. 'Journey of unity: AEMO's Reconciliation Path' was created by Wiradjuri artist Lani Balzan to visually narrate our ongoing journey towards reconciliation – a collaborative endeavour that honours First Nations cultures, fosters mutual understanding, and paves the way for a brighter, more inclusive future.

Read our RAP



Disclaimer



This presentation has been developed in line with the current versions (as at 16/04/2025) of the <u>Wholesale</u> <u>Electricity Market (WEM) Rules</u> and the <u>WEM Procedure: Minimum Eligibility Requirements for Flexible</u> <u>Certified Reserve Capacity.</u>

AEMO has taken all due care in preparing this material however, accepts no liability for any errors it may contain.

The information may be subject to specific exceptions or may not apply to particular factual circumstances.

To fully understand their obligations, Market Participants should refer to the latest versions of the WEM Rules and WEM Procedures, which are subject to change.

Online housekeeping





• Please mute your microphone during the presentation.



• Please leave your camera off as well, but we'd love to see you during Q&A.



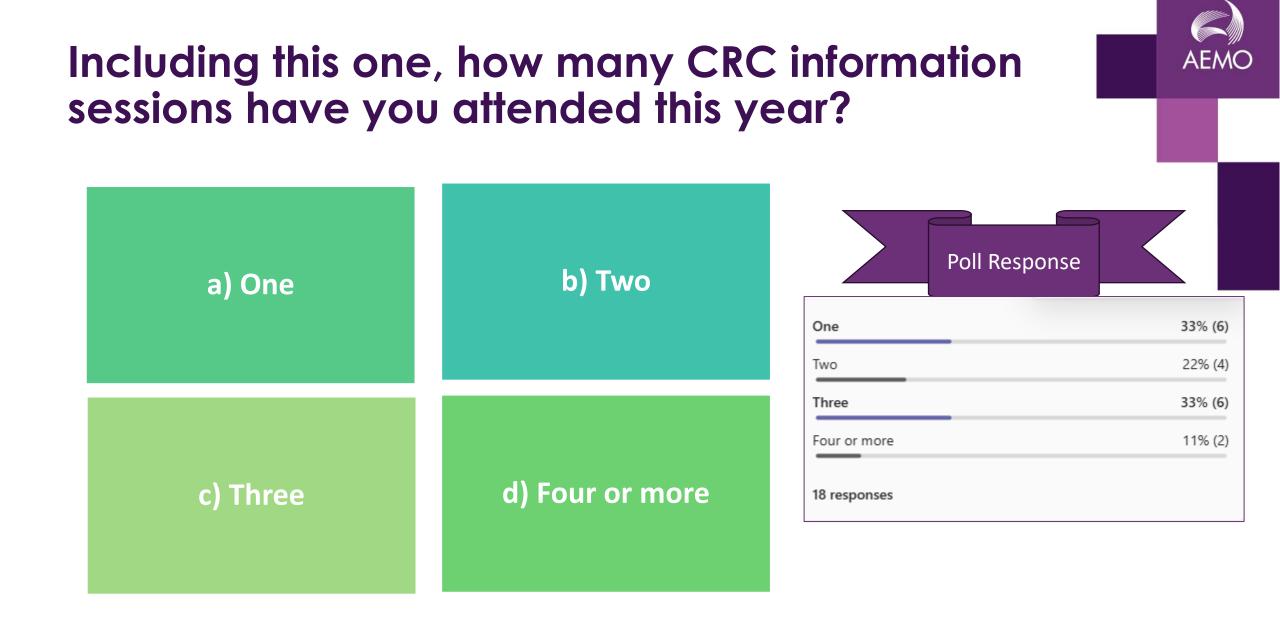
• Please avoid using AI-powered note-taking tools in this session.



- We will be using the **Q&A function in today's session**. We will pause regularly to give you time to post your question or raise your hand to ask a question.
- We will share a copy of the presentation as a pdf after the meeting on the RCM webpage
- We welcome feedback via <u>wa.capacity@aemo.com.au</u>

Agenda

Time (approx.)	Торіс
10:00 - 10:10	Welcome and introductions
10:10 - 10:40	Flexible CRC: eligibility, requirements and applications
10:40 - 11:00	Q&A
11:00 - 11:30	CRC submission demo and Q&A



How would you rate your current understanding of the Flexible CRC?



What is Flexible Certified Reserve Capacity



From the 2025 Reserve Capacity Cycle a new Flexible CRC mechanism has been introduced to incentivise capacity that can start, stop, ramp up and ramp down quickly.



Facilities which can meet <u>Minimum Eligibility Requirements</u> determined by AEMO are eligible to apply for Flexible CRC.



Flexible Capacity Credits will be assigned based on the maximum output they can achieve within **four hours** from a cold state and capped at their Peak CRC.



Flexible Capacity providers will be paid an additional amount for their Flexible Capacity Credits (when the Flexible price > Peak price).



Non-Scheduled Facilities are not eligible for Flexible Capacity (clause 4.11.1(bH)).

Definition of States

The relevant particular states are:

Non-Intermittent Generating System

From a cold state to operating at the minimum stable loading level

Intermittent Generating System

From fully curtailed to operating at the minimum stable loading level

Demand Side Programme

From receiving Dispatch Instruction and beginning to change output



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A breakdown of clause 4.10.1(fE) of the WEM Rules

4.10.1(fE): if the (CRC) application related to Flexible Capacity then, as applicable:

Subparagraph	Information required	Applicable to
i.	The amount of Flexible Capacity expected to be made available	
ii.	aximum ramp up rate expressed in MW/minute	
iii.	Maximum ramp down rate expressed in MW/minute	
iv.	linimum ramp up rate expressed in MW/minute All facilities	
V.	Minimum ramp down rate expressed in MW/minute	
vi.	Minimum required running time expressed in minutes	
vii.	Minimum stable loading (MSL) level	
viii.	Minimum time (minutes) required between receiving a Dispatch and changing consumption level	DSP
	Minimum time required between receiving a Dispatch in a cold state and operating at the MSL	All but DSP
ix.	Minimum time (minutes) after dispatch to ramp down from the MSL to zero output	All facilities
Х.	Minimum time (minutes) the Facility can be restarted after shut down	All facilities
xi.	Minimum time (seconds) to switch from discharge to charging and vice versa	ESR
xii.	Capable of providing FCESS	SF, SSF & DSP

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Note. Non-Scheduled Facilities are not applicable to apply for Flexible CRC.



Minimum Eligibility Requirements (MER) for 2025 Flexible CRC

Requirement	Non-Intermittent Generating System	Intermittent Generating System	Electric Storage Resource	Demand Side Programme
Maximum allowed minimum stable loading level expressed as a percentage of nameplate capacity	46%	46%	N/A	N/A
Minimum allowed ramp up rate expressed in percent of nameplate capacity per minute;	3%	3%	3%	3%
Minimum allowed ramp down rate expressed in percent of nameplate capacity per minute	3%	3%	3%	3%
Maximum time (in minutes) allowed between receiving a Dispatch Instruction when in a particular state and operating in a specific way	30	5	N/A	5
Capable from switching from charging to discharging (and vice versa) in a single Dispatch Interval	N/A	N/A	Y	N/A
Fast Start Facility	Y	N/A	N/A	N/A

For more information, please visit <u>Report: Flexible Certified Reserve Capacity minimum eligibility requirements for the 2025 Reserve</u> Capacity Cycle

Intermittent Generating System & Non-Intermittent Generating System

Apply for Flexible CRC			
Flexible Quantity* 🚯			
Maximum Ramp Up Rate*	Maximum Ramp Down Rate*		
(MW/min)	(MW/min)		
Minimum Ramp Up Rate*	Minimum Ramp Down Rate*		
(MW/min)	(MW/min)		Non-Intermittent Generating
Minimum Required Running Time *	0 minutes V 0 seconds V	•	System: ≤ 30 minutes
Minimum time between receiving a Dispatch Instruction in a cold state and operating at the minimum stable loading level *	0 minutes 🗸 0 seconds		 Intermittent Generating System: ≤ 5 minutes
Minimum time after receiving a Dispatch Instructi to ramp down from the minimum stable loading to zero output *			
Minimum time before the component can be restarted after it is shut down *	0 minutes V 0 seconds V	•	
Minimum Stable Loading Level* 🕤 (MW)			 Non-Intermittent Generating Fast Start information to be
Additional supporting documentation	Drag file here or browse		uploaded here

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Electric Storage Resource

Apply for Flexible CRC		
Z		
Flexible Quantity* 🚯		
(MW)		
[14144]		
Maximum Ramp Up Rate*	Maximum Ramp Down Rate*	
(MW/min)	(MW/min)	
Minimum Ramp Up Rate*	Minimum Ramp Down Rate *	
(MW/min)	(MW/min)	
Minimum Required Running Time *	0 minutes 🗸 0 seconds	~
Minimum time between receiving a Dispatch	0 minutes V 0 seconds	×
Instruction in a cold state and operating at the minimum stable loading level *		
Minimum time after receiving a Dispatch Instruction	· · · · · · · · · · · · · · · · · · ·	
to ramp down from the minimum stable loading level to zero output *	0 minutes V 0 seconds	~
Minimum time before the component can be restarted after it is shut down *	0 minutes V 0 seconds	×
Minimum time (in seconds) required to switch from	Minimum time (in seconds) required to switch from	
discharging to charging *	charging to discharging *	
seconds	seconds	
Minimum Stable Loading Level * 🚯		
(MW)		
Additional supporting documentation		
	Drag file here or browse	

Additional questions for ESR: Charging/discharging switching time

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Demand Side Programme

Apply for Flexible CRC	
191	
Flexible Quantity* 🚯	
10	
Maximum Trading Intervals per year for Flexible Capacity	1* 1 Maximum Trading Intervals per day for Flexible Capacity* 1
1	1
Maximum Ramp Up Rate*	Maximum Ramp Down Rate*
1	1
Minimum Ramp Up Rate*	Minimum Ramp Down Rate*
1	1
Is the Facility expected to provide FCESS?* Ves No	
Evidence of how the Facility plans to meet its Reserve Ca No documents uploaded	spacity Obligations for Flexible Capacity, including the technologies that are expected to be used *
Additional Supporting Documentation	
No documents uploaded	
vide evidence of	
the DSP plans	
eet its Flex	

Capacity obligations

Check the DSP dispatch requirements in 2025 WEM ESOO (24 June 2025)

> Maximum time in minutes allowed before receiving a Dispatch Instruction and beginning to change output no more than 5 minutes – in the Facility page

Maximum Trading Intervals per year for Peak Maximum Trading Intervals per day for Peak Capacity* 🚯 Capacity* WEM Rule reference: 4.10.1(f)(v) The minimum notice period must be no more than: - if the application relates only to Peak Capacity, 120 minutes; and - if the application relates to both Peak Capacity and Flexible Capacity, five minutes Minimum Dispatch Notice Period*

Fast Start Facility - Minimum Eligibility Requirement

Determine in Year 1 if the Non-Intermittent Generating System is a Fast Start Facility (4.10.1A(a)i)

Scheduled and Semi-Scheduled Facility capable of meeting the requirements

Assessment by AEMO based off the criteria under clauses 7.4.44 & 7.4.45

Information to be provided in CRC application in additional sections covering criteria in clauses 7.4.44 & 7.4.45

AEMO to consider provisions to include criteria in Standing Data. This requirement for IGS and ESR was removed during consultation of the RCM Review rules.

Frequency Co-optimised Essential System Services (FCESS) and Flexible CRC



What is FCESS?

- A suite of five services designed to maintain the security and reliability of the SWIS.
- These services are cooptimised with energy dispatch to ensure supply and demand are met.
- AEMO must procure adequate FCESS to meet the Essential System Service Standards.

What does FCESS have to do with Flexible CRC?

- The Market Participant must apply for any FCESS, they are capable of providing – MR 4.12.2(d).
- Applications are to be at least 3 months before the start of the first Capacity Year.
- If the Market Participant fails to apply, AEMO must not assign Flexible CRC in a future cycle – MR 4.11.1(bl)

How to evidence your FCESS intentions in CRC?

- Can select one or multiple services the Facility intends to provide.
- SF & SSF on the facility-level page
- DSP in separate Flexible CRC section
- Check the <u>FCESS WEM</u> <u>Procedure</u> before ticking.

How confident do you feel *now* about applying for Flexible CRC?







Please raise your hand or post your questions in the Q&A



CRC Submission Demo



- A quick walkthrough of the CRC portal.
- An example application for a Scheduled Facility with three components, with some fields redacted.
- Illustrative purposes only and does not guarantee coverage of all scenarios.
 - You're welcome to log in to your own portal and follow along during the demo.
 - A Q&A session will follow the demo.

Next steps/updates



- The 2025 CRC window opened on 14 April.
- Please always refer to the <u>2025 RC timetable</u> to stay updated on any changes associated with the CRC process timelines.
- Participants are encouraged to engage with the <u>WA CIA team</u> for any queries around their specific CRC applications as soon as possible.