Request for Expressions of Interest for the 2024 Reserve Capacity Cycle 15 January 2024

A report for the Wholesale Electricity Market

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Important notice

Purpose

The Australian Energy Market Operator (AEMO) has prepared this Request for Expressions of Interest (REOI) under clause 4.2.2 of the Wholesale Electricity Market Rules.

The purpose of the REOI is to invite existing and prospective Market Participants to notify AEMO of the amount of new Energy Producing System and Demand Side Programme capacity they intend to make available as Peak Capacity and Flexible Capacity in the South West interconnected system in the Capacity Year to which the REOI relates.

This document is generally based on the information available to AEMO as at 15 January 2024 unless otherwise indicated.

Disclaimer

AEMO has made reasonable efforts to ensure the quality of the information in this document but cannot guarantee that information, forecasts, and assumptions referred to in the document are accurate, complete or appropriate for your circumstances.

Modelling work referred to in this document inherently requires assumptions about future behaviours and market interactions, which may result in forecasts that deviate from future conditions. There will usually be differences between estimated and actual results, because events and circumstances frequently do not occur as expected, and those differences may be material.

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Executive summary

The 2024 Request for Expressions of Interest (REOI) invites Market Participants and proponents to provide information to AEMO regarding the amount of new Energy Producing Systems or Demand Side Programme capacity they intend to make available as Peak Capacity¹ in the South West Interconnected System (SWIS) for the 2026-27 Capacity Year². New capacity includes upgrades to existing Facilities and new Facilities.

Proponents are not required to submit an Expression of Interest (EOI) to be eligible to apply for Certified Reserve Capacity (CRC). For proponents that submit an EOI, AEMO will assess the EOI and assign an indicative Facility Class (IFC) for CRC application purposes prior to the opening of the CRC window. Proponents that do not submit an EOI must apply for an IFC assessment prior to applying for CRC. The submission of a valid EOI and the submission time will affect the Facility's place in the priority order when assigning the Network Access Quantity (NAQ) in instances where there is a tie-break in the NAQ calculation process.

All questions in the EOI must be responded to and supporting evidence should be submitted where appropriate. Failure to adequately respond to the EOI may result in the EOI not being acceptable as it does not comply with clause 4.2.6 of the Wholesale Electricity Market Rules (WEM Rules)³.

EOIs must be submitted to AEMO by 5:00pm (Australian Western Standard Time), Friday 1 March 2024.

Applicants should begin securing all necessary approvals related to their CRC application for the 2024 Reserve Capacity Cycle (RC Cycle) (see Section 2). AEMO encourages applicants to engage with AEMO for assistance in understanding the various aspects of the Reserve Capacity Mechanism. Key Year 1 activities have been detailed in the 2024 RC Cycle Timetable⁴.

The preliminary Reserve Capacity Requirement for the 2026-27 Capacity Year is 5,716 megawatts (MW), based on the 2023 Wholesale Electricity Market *Electricity Statement of Opportunities* forecasts⁵. It is estimated that there will be a 999 MW⁶ capacity investment gap for the 2026-27 Capacity Year. This gap presents a significant capacity investment opportunity in the SWIS to meet growing demand and ensuring a reliable and secure power system.

The Coordinator of Energy has triggered, at AEMO's request, a Non-Co-optimised Essential System Services (NCESS) procurement process for reliability services to commence on 1 October 2025 with a two-year duration⁷. The NCESS procurement is being initiated ahead of the completion of the 2023 RC Cycle to allow sufficient time for applicants to deliver capacity. The NCESS procurement will seek up to 436 MW of reliability services during the 2025-26 and 2026-2027 Capacity Years, with a minimum service size of 1 MW.

¹ From the 2024 RC Cycle, Reserve Capacity means either Peak Capacity (capacity that contributes to meeting peak demand) or both Peak Capacity and Flexible Capacity (capacity able to respond at very short notice to manage changes in load during high ramp periods). Flexible Capacity is a new form of Reserve Capacity. It is expected that Flexible Capacity procurement will occur in future RC Cycles.

² The 2026-27 Capacity Year is for capacity available on Trading Days from 1 October 2026 to 30 September 2027.

³ The WEM Rules are available at <u>https://www.wa.gov.au/government/document-collections/wholesale-electricity-market-rules</u>.

⁴ Available at <u>https://aemo.com.au/en/energy-systems/electricity/wholesale-electricity-market-wem/wa-reserve-capacity-mechanism/reserve-capacity-timetable</u>.

⁵ See Table 4, 2023 WEM ESOO. Available at <u>https://aemo.com.au/en/energy-systems/electricity/wholesale-electricity-market-wem/wem-forecasting-and-planning/wem-electricity-statement-of-opportunities-wem-esoo.</u>

⁶ This does not factor in all capacity procured as part of the NCESS procurement for peak demand services for the 2024-25 and 2025-26 Capacity Years. The procurement outcome is available at <u>https://aemo.com.au/en/consultations/tenders/tenders-and-expressions-of-interest-for-ncess-reliability-services-wa</u>.

⁷ Available at <u>https://aemo.com.au/consultations/tenders/expressions-of-interest-and-tender-for-ncess-reliability-services-2025-27-wa.</u>

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1 Introduction

The 2024 Request for Expressions of Interest (REOI) has been prepared in accordance with clause 4.2.2 of the Wholesale Electricity Market Rules (WEM Rules). All clause references in this document refer to a clause of the WEM Rules, unless otherwise indicated. Unless the context otherwise indicates, all terms capitalised in this document are defined in Chapter 11 of the WEM Rules. An electronic version of the WEM Rules can be found <u>here</u>.

The Wholesale Electricity Market (WEM) operates in relation to the South West Interconnected System (SWIS). The SWIS, as shown in Figure 1, covers the south-west of Western Australia (WA), extending north to Kalbarri, south to Albany, and east to Kalgoorlie.



Figure 1 Map of the SWIS

1.1 The Reserve Capacity Mechanism

The SWIS is an isolated system with a high summer peak demand relative to the average load. The WEM features a capacity market called the Reserve Capacity Mechanism (RCM). The RCM aims to ensure sufficient Energy Producing Systems and Demand Side Programme (DSP) capacity is available to meet peak demand in the SWIS.

The RCM is built around the concept of a "Capacity Credit". Capacity Credits are notional units of capacity that can be traded via bilateral contracts among Market Participants. Capacity Credits are valid for a single Capacity Year⁸ and are assigned to Energy Producing Systems and DSPs. Any Energy Producing System or DSP capacity that can meet the timelines and requirements outlined in the WEM Rules may participate in the RCM.

Obligations are imposed on Market Participants holding Capacity Credits in return for receiving payments⁹. Facilities must provide capacity from the Trading Day¹⁰ beginning 1 October in Year 3 to the Trading Day beginning 30 September in Year 4 of the relevant Reserve Capacity Cycle (RC Cycle), except to the extent that the Facility is subject to a Planned Outage. If a Facility fails to meet its Reserve Capacity Obligations, the Facility is required to pay to AEMO a Facility Reserve Capacity Deficit Refund (including any Refund Payable Planned Outage Quantity), which is redistributed to other Market Participants.

Market Participants are required to purchase enough Capacity Credits to meet the level of their Individual Reserve Capacity Requirement (IRCR), which is based on their consumption at system peak times in the Hot Season of the previous year. Market Participants may purchase Capacity Credits through bilateral contracts with capacity providers, or through the WEM at the administered Peak Reserve Capacity Price (Peak RCP).

Each year AEMO forecasts the Peak Reserve Capacity Target (Peak RCT)¹¹, which is AEMO's estimate of the total amount of Energy Producing System or DSP capacity required in the SWIS to satisfy the Planning Criterion for that Capacity Year, calculated in accordance with clause 4.5.10(b). This Peak RCT is determined based on the peak demand forecast of 'one-in-10-year' conditions¹², otherwise stated as the 10% Probability of Exceedance (POE)¹³, plus a reserve margin¹⁴.

For details on existing Energy Producing Systems and DSP capacity and future electricity demand and supplydemand balance, please refer to the 2023 WEM *Electricity Statement of Opportunities* (ESOO)¹⁵. The 2024 WEM ESOO will be published by 10 June 2024 and will contain the final determination for the Peak Reserve Capacity Requirement (Peak RCR) for the 2024 RC Cycle.

⁸ A Capacity Year is a period of 12 months commencing at the start of the Trading Day which commences on 1 October and ending on the end of the Trading Day ending on 1 October of the following calendar year.

⁹ Reserve Capacity Obligations differ depending on Technology Type and Facility Class. Failure to satisfy Reserve Capacity Obligations may result in refunds. See Section 4.12 of the WEM Rules.

¹⁰ A period of 24 hours commencing at 8:00am.

¹¹ The Long Term Projected Assessment of System Adequacy (Long Term PASA) forecasts the Peak RCT over a 10-Capacity Year horizon and publishes the results in the WEM ESOO. The Peak RCT is AEMO's estimate of the total amount of Energy Producing System and DSP capacity required in the SWIS to satisfy the Planning Criterion. Peak RCT forecasts are updated annually in the WEM ESOO.

¹² One-in-10-year demand conditions are a common benchmark in electricity markets when considering reserve margin levels. They are used in the National Electricity Market, as well as in major US electricity markets, such as those operated by PJM (regional transmission organisation for all or parts of 13 states and the District of Columbia), the New York Independent System Operator, and the New England Independent System Operator.

¹³ POE means the likelihood a peak demand forecast will be met or exceeded. A 10% POE peak demand forecast is expected to be exceeded, on average, only one year in 10 and assumes more extreme weather than a 50% POE forecast.

¹⁴ The reserve margin accounts for both the annual variability of peak demand in the SWIS and the size of the largest contingency relating to loss of supply that could be expected at the time of peak demand, which may relate to outages of either generation or network assets.

¹⁵ Available at https://aemo.com.au/-/media/files/electricity/wem/planning_and_forecasting/esoo/2023/2023-wholesale-electricity-market-electricity-statement-of-opportunities-wem-esoo.pdf?la=en&hash=E05FBD7B0EEF023895B6360D590BAE26.

1.2 Changes to the RCM

To improve the effectiveness of the RCM, the Coordinator of Energy conducted a comprehensive review of the RCM¹⁶, and the Reserve Capacity Reform Rules 2023¹⁷ were published in the Government Gazette on 12 December 2023.

As part of the latest iteration of the WEM Rules, proponents are no longer required to submit an EOI to be eligible to apply for Certified Reserve Capacity (CRC) for the relevant RC Cycle. From the 2024 RC Cycle, new concepts of Peak Capacity (capacity that contributes to meeting peak demand) and Flexible Capacity (capacity able to respond at very short notice to manage changes in load during high ramp periods) are introduced. Reserve Capacity means either Peak Capacity or both Peak Capacity and Flexible Capacity. New associated terms – such as Peak RCR and Peak RCT – are analogous to previous Reserve Capacity terms/products. For simplicity, references to Peak Capacity in this document may be references to historical Reserve Capacity concepts in place prior to this change.

Flexible Capacity is a new form of Reserve Capacity. It is expected that Flexible Capacity procurement will occur in future RC Cycles, but is not being procured for the 2024 RC Cycle.

Applicants that do not submit an EOI must apply for an indicative Facility Class (IFC) assessment before applying for CRC (see Section 2.2.1).

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¹⁶ Available at <u>https://www.wa.gov.au/government/document-collections/reserve-capacity-mechanism-review</u>.

¹⁷ Available at <u>https://www.wa.gov.au/government/document-collections/wholesale-electricity-market-amendment-reserve-capacity-reform-rules-2023</u>.

2 Key RCM processes and requirements

2.1 EOI process

Applicants seeking CRC may submit an EOI. Proponents are not required to submit an EOI to be eligible to apply for CRC. For proponents that submit an EOI, AEMO will assess the EOI and assign an IFC for CRC application purposes prior to the opening of the CRC window. Proponents that do not submit an EOI must apply for an IFC assessment prior to submitting a CRC application. The submission of a valid EOI and the submission time will affect the Facility's place in the priority order when assigning the Network Access Quantity (NAQ) in instances where there is a tie-break in the NAQ calculation process.

For an EOI submission to be considered valid, all questions in the EOI must be responded to and supporting evidence should be submitted where appropriate. Failure to adequately respond to the EOI may result in the EOI not being acceptable as it does not comply with clause 4.2.6.

Where an applicant is unsure of the final configuration of their Facility, they may submit multiple EOIs specifying different configurations for the Facility. Multiple EOIs submitted for the same Facility are referred to as EOI Facility Variants. Applicants will be required to nominate one EOI as the primary variant (EOI Primary Variant). EOI Primary Variants will be used by AEMO for the purposes of clause 4.2.7(b) to formulate Constraint Equations under section 4.4B of the WEM Rules.

Under clause 4.4B.2, by 5:00pm on the last Business Day falling on or before 8 May of Year 1 of an RC Cycle, AEMO is required to provide Network Operators¹⁸, in respect of its Network for the RC Cycle, with the following information (as further described in clause 4.4B.2):

- Details of each Facility specified in an EOI.
- Details of each Facility for which AEMO has received a notice of intention to cease operation permanently by 1 October of Year 3 of the RC Cycle.
- Details of each Facility for which AEMO has received an Early Certified Reserve Capacity (Early CRC) application, and whether that Facility has nominated to be classified as a Network Augmentation Funding Facility (NAFF).
- Details of any Non-Co-optimised Essential System Service (NCESS) contracts procured by AEMO which are expected to be in service by 1 October of Year 3 of the RC Cycle and are expected to impact information provided by a Network Operator under clause 4.4B.5.
- Preliminary forecasts of peak demand determined under clause 4.5.10(a)(iv) for the third Capacity Year of the Long Term Projected Assessment of System Adequacy Study Horizon.

This information enables Network Operators to develop and provide AEMO with an estimate of Thermal Network Limits, which will be used to develop RCM Constraint Equations to be applied in the Network Access Quantity Model (NAQ Model).

¹⁸ Western Power is the Network Operator in the SWIS.

The EOI submission template collects detailed locational and network connection information. This information enables Network Operators to include information about new connections of Facilities provided in EOIs when developing an estimate of Thermal Network Limits under clause 4.4B.3.

If a Market Participant intends to nominate a new Facility or an upgrade of an existing Facility as a NAFF in their CRC application (see Section 2.2.3), they must include this nomination in the EOI. This enables Network Operators to provide an estimate of the relevant Thermal Network Limits to AEMO for its RCM Constraint Equation development.

2.2 The Certified Reserve Capacity process

AEMO undertakes the CRC process annually. The process assesses and certifies the level of Reserve Capacity a Facility is expected to be able to deliver to the SWIS by 1 October in Year 3 (at the latest) for the relevant RC Cycle.

Sections 4.9 to 4.11 of the WEM Rules describe the CRC application process and the process for determining the quantity of CRC to be assigned to Facilities or components of Facilities. Information that must be provided during the CRC application process¹⁹ is listed under clause 4.10.1 and the WEM Procedure: Certification of Reserve Capacity for the 2023 Reserve Capacity Cycle^{20, 21}. Applicants can also refer to the 2023 Reserve Capacity Cycle workshop presentation²², which provides a guide on the CRC process and the supporting documentation required.

An existing or prospective Market Participant may apply to AEMO for CRC for an existing Facility, an upgrade to an existing Facility, or a new Facility, for the 2026-27 Capacity Year in accordance with the 2024 RC Cycle timetable²³. To be eligible for CRC:

- Facilities must be capable of meeting Reserve Capacity Obligations by 1 October 2026, for the 2026-27 Capacity Year.
- New Facilities and Facility Upgrades must be assigned an IFC and indicative Facility Technology Type.
 - Note: A pre-requisite of the IFC assessment is registration as a Market Participant²⁴ and lodgement of a facility creation form²⁵ in the Wholesale Electricity Market Systems (WEMS).
- Submission of an EOI is not a pre-requisite for eligibility to submit CRC applications but can affect the prioritisation order for Capacity Credits assigned via the NAQ process (see Section 2.1).

¹⁹ See the Certification of Reserve Capacity webpage. Available at https://www.aemo.com.au/energy-systems/electricity/wholesale-electricity-market-wem/wa-reserve-capacity-mechanism/certification-of-reserve-capacity.

²⁰ The WEM Procedure: Certification of Reserve Capacity for the 2024 Reserve Capacity Cycle is not available due to changes to the WEM Rules made in late 2023. The WEM Procedure: Certification of Reserve Capacity for the 2024 Reserve Capacity Cycle will be made available in early 2024.

²¹ Available at <u>https://aemo.com.au/en/energy-systems/electricity/wholesale-electricity-market-wem/procedures-policies-and-guides/procedures.</u>

²² Information on the 2023 certification workshop and the details regarding a forthcoming 2024 workshop are available at <u>https://aemo.com.au/energy-systems/electricity/wholesale-electricity-market-wem/wa-reserve-capacity-mechanism/certification-of-reserve-capacity</u>.

²³ Available at <u>https://aemo.com.au/en/energy-systems/electricity/wholesale-electricity-market-wem/wa-reserve-capacity-mechanism/reservecapacity-timetable.</u>

²⁴ Available at <u>https://aemo.com.au/en/energy-systems/electricity/wholesale-electricity-market-wem/participate-in-the-market/registration/</u> register-as-a-rule-participant-in-the-wem.

²⁵ Available at https://aemo.com.au/en/energy-systems/electricity/wholesale-electricity-market-wem/participate-in-the-market/registration/register-a-facility-in-the-wem.

• The applicant must submit a complete CRC Application which contains all the information required under clause 4.10. in the format specified in the WEM Procedure referred to in clause 4.9.10.

2.2.1 Indicative Facility Class and indicative Facility Technology Type

When AEMO receives an EOI in relation to a new Facility or Facility upgrade in accordance with clause 4.2.6, AEMO must assign an IFC and an indicative Facility Technology Type to the new Facility or upgrade to an existing Facility and notify the applicant of the outcome by the opening date for lodgement of CRC applications (clause 4.1.7)²⁶.

Where an EOI has not been submitted to AEMO, the proponent must apply for an assessment of an IFC and one or more indicative Facility Technology Types prior to submitting a CRC application (see clause 4.8A.3). Applications under clause 4.8A.3 must be submitted at least 25 Business Days prior to the 24 June of Year 1 of a Reserve Capacity Cycle (the date from which AEMO must cease to accept lodgement of applications for CRC). AEMO may request additional information from the applicant in making this assessment (clauses 4.8A.2 and 4.8A.5(c)).

IFC assessments are dependent on whether an EOI was submitted, see Table 1.

Table 1 Timelines for Market Participant registration and Facility Creation

EOI submitted	Market Participant registration (20 Business Days)	Facility Creation form (10 Business Days)	Deadline for registration applications			
Yes	Not registered	Not created	Registration applications must be lodged prior to 28-02-2024			
Yes	Registered	Not created	Registration applications must be lodged prior to 28-03-2024			
No	Not registered	Not created	Registration applications must be lodged prior to 04-04-2024 (clause 4.8A.4(b))			
No	Registered	Not created	Registration applications must be lodged prior to 03-05-2024 (clause 4.8A.4(b))			

Applicants seeking IFC assessment must:

- Complete registrations in WEMS:
 - Register as a Market Participant in WEMS the timeframe for the registration of a new Market Participant is 20 Business Days (clause 2.31.10(b)).
 - Lodge a facility creation form the timeframe for processing a facility creation form is 10 Business Days.
 - Market Participant registration and facility creation cannot be processed concurrently. Applicants must allow sufficient time for registration as a Market Participant to be finalised before a facility creation form can be processed. Table 1 outlines the processing timeframes for a Market Participant registration and facility creation form.
- Provide AEMO with the information requested in the EOI (or as required under clause 4.8A.4(a)).
 - The EOI template includes the information required under paragraph 3.2.3 of the WEM Procedure: Indicative Facility Class and RCM Facility Class assessment²⁷.
 - Applicants that do not submit an EOI, but wish to apply for CRC, are required to provide AEMO with the information requested in the EOI. Any EOI information provided after the closing date for EOI submissions

²⁶ Clause 4.8A.1 of the WEM Rules.

²⁷ Available at <u>https://aemo.com.au/energy-systems/electricity/wholesale-electricity-market-wem/procedures-policies-and-guides/procedures.</u>

will not be considered as an EOI and will be only used for IFC assessment purposes. Applicants should notify AEMO that they are submitting information for the purposes of IFC assessment.

Applicants are encouraged to provide complete and accurate information for registration purposes to avoid delays in completion of this process. To ensure registration and facility creation form requirements have been met, applicants are encouraged to contact AEMO's Energy Market Management team (WA) at <u>wa.operations@aemo.com.au</u> prior to submitting their registration applications.

2.2.2 Submitting a CRC application for the 2024 Reserve Capacity Cycle

CRC applications for the 2024 RC Cycle may be submitted through WEMS from **9:00am (Australian Western Standard Time [AWST]), Monday, 15 April 2024**. Applicants for CRC must provide the information specified in clause 4.10.1 prior to the CRC window closure at **5:00pm AWST, Monday 24 June 2024** (clause 4.1.11).

A CRC application for a Facility or component of a Facility that is to be assessed using the Relevant Level Method,²⁸ which has not operated for the full period specified in Step 1(a) of Appendix 9 of the WEM Rules (the five year period ending at 8:00am on 1 April of Capacity Year 1 of the relevant RC Cycle [or that otherwise meets the criteria specified in clause 4.10.3]), must include an independent expert report. This includes applications for components of Semi-Scheduled Facilities and Scheduled Facilities that are Intermittent Generating Systems, and Non-Scheduled Facilities²⁹.

2.2.3 Network Augmentation Funding Facility

Market Participants who fund the cost of network augmentation to support the access for a new Facility or an upgrade of a Facility (known as a NAFF) will be assigned a higher NAQ priority over Facilities that are not funding network augmentation. In accordance with clause 4.10A.2, a Market Participant may only nominate a Facility or Facility upgrade to be classified as a NAFF in respect of a RC Cycle if:

- The Facility or Facility upgrade is an Energy Producing System.
- The Market Participant for the Facility has committed to funding Network Augmentation Works.
- The Network Augmentation Works are expected to be in-service (including completion of all required Commissioning Tests) by 1 October of Year 3 of the RC Cycle to which the application for CRC for the Facility relates.
- The EOI for the Facility specifies that the Facility is expected to be nominated to be classified as a NAFF.

A Market Participant must provide information as part of the CRC application to support its nomination that a Facility or Facility upgrade, be classified as a NAFF. Section 4.10A of the WEM Rules details the processes AEMO must follow to verify the information with the Network Operator and, if verified, to classify a Facility or Facility upgrade as a NAFF.

²⁸ See Relevant Level Method. Available at <u>https://www.aemo.com.au/energy-systems/electricity/wholesale-electricity-market-wem/wa-</u> reserve-capacity-mechanism/certification-of-reserve-capacity.

²⁹ Non-Scheduled Facilities comprising only an Electric Storage Resource, which have not operated for the full period specified in Step 1(a) of Appendix 9, must be assessed using AEMO's reasonable expectation of the Linearly Derated Capacity that the Electric Storage Resource can sustain over the Peak Electric Storage Resource Obligation Duration in accordance with clause 4.11.1(bD)(ii).

2.2.4 Network access

A CRC applicant is required to provide evidence of network access for each Facility covered by the CRC application. Clause 4.10.1(bA) requires a CRC application to include:

- Evidence of an Arrangement for Access or evidence that the Market Participant has accepted an Access
 Proposal from the Network Operator made in respect of the Facility or other evidence from the Network
 Operator that the Facility will have an Arrangement for Access, including evidence that the Facility will be
 entitled to have network access from a specified date occurring prior to the date when the Facility will have
 completed all Commissioning Tests and be capable of meeting its Reserve Capacity Obligations in full³⁰.
 Evidence typically consists of a signed electricity transfer access contract and, for a new Facility, a signed
 interconnection works contract or connection contract, covering the entire relevant Capacity Year.
- The Declared Sent Out Capacity for the Facility at the relevant connection point (except for applications for Conditional Peak Certified Reserve Capacity or where the Facility is a DSP)³¹.

The timeframe to obtain network access for a new Facility varies with the type of generation, location, and existing queue of applicants. In many cases, access to the Network may take longer than the two-year time horizon of the RCM. For this reason, AEMO encourages applicants who intend to apply for CRC for a new Facility or a Facility upgrade to contact the Network Operator as early as possible to ensure that their project can progress through the RCM process in a timely manner.

2.2.5 Environmental approvals

Clause 4.10.1(c)(ii) requires a CRC application to include evidence with respect to any necessary Environmental Approvals (except for applications for Conditional Peak Certified Reserve Capacity). Applicants may be required to obtain approval from federal, state, and local government authorities. Applicants are encouraged to allow enough time to obtain any necessary environmental approvals.

2.3 NAQ and Capacity Credits

The NAQ framework³² has been in effect since the 2022 RC Cycle. The NAQ framework serves two purposes:

- It establishes a process for determining network capacity at peak demand periods. The NAQ (calculated in MW) represents AEMO's forecast of a Facility's network access level at peak demand periods.
- It provides investment certainty for prospective capacity providers who contribute to the reliability of the power system, by establishing a priority order for the assignment of a NAQ to Facilities. In any given year, existing Facilities will be assessed and assigned a NAQ ahead of new Facilities, with new Facilities receiving a NAQ up to the residual capacity of the Network.

The quantity of Capacity Credits assigned to a Facility is equal to the NAQ, as determined in accordance with clause 4.20.5B. Capacity Credits are assigned in accordance with clause 4.20.5A.

³⁰ Refer to section 4.12 of the WEM Rules regarding setting Reserve Capacity Obligations.

³¹ See network access requirements, at <u>https://aemo.com.au/en/energy-systems/electricity/wholesale-electricity-market-wem/wa-reserve-capacity-mechanism/certification-of-reserve-capacity</u>.

³² See <u>https://www.wa.gov.au/government/publications/reserve-capacity-mechanism-changes-support-the-implementation-of-constrained-access-and-facilitate-storage-participation</u>.

3 Key information for the 2024 REOI

3.1 Submitting an EOI for the 2024 Reserve Capacity Cycle

AEMO is requesting a response in the form of an EOI from parties who are seeking CRC for new Facilities or upgrades to existing Facilities for the 2024 RC Cycle in relation to the 2026-27 Capacity Year. Interested proponents should submit their response no later than the relevant time outlined in clause 4.1.5 (and as outlined below). Applicants seeking CRC are not obliged to submit an EOI. However, the submission of a valid EOI and the respective submission time of that EOI will affect the priority order assigned by AEMO to Facilities when assigning the Network Access Quantity (NAQ) in instances where there is a tie-break in the NAQ calculation process.

To submit an EOI for the 2024 RC Cycle, an applicant is required to complete the 2024 EOI application form, which can be found on the WEM Website³³. The information required to be included in an EOI, and the format in which it should be submitted, is outlined in this application form.

The applicant must email the completed 2024 EOI application form, including any required supporting documentation, to AEMO at <u>wa.capacity@aemo.com.au</u> by the closing time and date, that is, **5:00pm AWST on Friday, 1 March 2024**.

Any queries in relation to this REOI should be addressed to the WA Capacity Market Investment on (08) 9469 9800 or at <u>wa.capacity@aemo.com.au</u>.

3.1.1 Preliminary Reserve Capacity Requirement

Based on the 2023 WEM ESOO forecasts, for the 2026-27 Capacity Year, the preliminary Peak RCR³⁴ is 5,716 MW. The final Peak RCR for the 2026-27 Capacity Year will be published in the 2024 WEM ESOO on or before 10 June 2024.

3.1.2 Key information on timetables for the RC Cycle

Applicants should note the following key dates in the 2024 RC Cycle:

- 9:00am AWST, 15 April 2024 opening date for the lodgement of applications for CRC.
- 5:00pm AWST, 24 June 2024 closing date for the lodgement of applications for CRC.
- 5:00pm AWST, 12 August 2024 AEMO will notify CRC applicants of the amount of CRC assigned.
- 5:00pm AWST, 23 August 2024 Market Participants holding CRC must notify AEMO as to how their CRC will be dealt with in accordance with clause 4.14.1.
- 5:00pm AWST, 30 September 2024 AEMO assigns Capacity Credits and notifies Market Participants of the of the NAQ determined for each of their Facilities.

³³ 2024 EOI Application Form. Available at <u>https://aemo.com.au/en/energy-systems/electricity/wholesale-electricity-market-wem/wa-reserve-</u> capacity-mechanism/expressions-of-interest.

³⁴ The preliminary Peak RCR for an RC Cycle is the estimated amount of Peak Capacity required as reported in the previous RC Cycle's WEM ESOO.



Table 2 outlines the Peak Benchmark Reserve Capacity Price (Peak BRCP), the Peak RCR, the transitional Reserve Capacity Price (Transitional RCP)³⁵, and the corresponding quantities of Capacity Credits, where available. No Fixed Price Facilities were present in the 2022-23 to 2025-26 Capacity Years.

Capacity Year	Peak Peal BRCP RCF		Capacity Credits assigned	New Facilities and DSP Facilities			Transitional Facilities		
		Peak RCR		Peak RCP	Facility Monthly Peak RCP	Capacity Credits assigned	Transitional RCP	Transitional Monthly RCP ³⁷	Capacity Credits Assigned
Unit	\$/MW/year	MW	MW	\$/MW/year	\$/MW/month	MW	\$/MW/year	\$/MW/month	MW
2023-24	\$151,700	4,396	4,727	\$105,949	\$8,829	189	\$118,599	\$9,883	4,538
2024-25	\$165,700	4,526	4,596	\$194,784	\$16,232	260	\$150,746	\$12,562	4,337
2025-26	\$193,400	5,543	4,717	\$251,420	\$20,952	447	\$155,419	\$12,952	4,270
2026.27	\$220,000	5 716 ^A			т	o ha datarmi	hed		

Table 2 Key figures for the 2021, 2022, 2023, and 2024 RC Cycles³⁶

Note: Figures have been rounded to the nearest integer. Capacity Credits values are assigned up to three decimal places. Historical Capacity Credit assignments are available on the Assignment of Capacity Credits webpage, at https://aemo.com.au/en/energy-systems/electricity/wholesale-electricity-market-wem/wa-reserve-capacity-mechanism/assignment-of-capacity-credits.

A: This figure is the preliminary Peak RCR for the 2024 RC Cycle, as specified by the 2026-27 Peak RCT in the 2023 WEM ESOO.

Availability Curves

Figures 2-4 detail the Availability Curves for the 2023-24 to 2025-26 Capacity Years. Availability Curves are two-dimensional duration curves of the forecast minimum Peak Capacity requirement for each Trading Interval over a Capacity Year, as described in clause 4.5.10(e). The reserve margin was increased in the 2025-26 Capacity Year to account for the risk of simultaneous outages for multiple generating units³⁸. Increases in the minimum Regulation Raise requirement also contributed to the increase in reserve margin.

³⁵ A Transitional Reserve Capacity Cycle is either the 2019 RC Cycle or any of the subsequent RC Cycles up to and including the 2028 RC Cycle. The Reserve Capacity Price for these RC Cycles is known as the transitional Reserve Capacity Price.

³⁶ In accordance with clause 4.3.1(c)(viii), the aggregate quantity of MW of Capacity Credits assigned to Facilities at each of the prices referred to in clauses 4.3.1(c)(vi) and 4.3.1(c)(vii) is reported in Table 2.

³⁷ For Transitional Reserve Capacity Cycles, a Facility Monthly Reserve Capacity Price is calculated for Transitional Facilities. This is referred to in this document as a Transitional Monthly RCP.

³⁸ See page 7 of the 2023 WEM ESOO. Available at <u>https://aemo.com.au/-/media/files/electricity/wem/planning_and_forecasting/esoo/</u> 2023/2023-wholesale-electricity-market-electricity-statement-of-opportunities-wem-esoo.pdf?la=en.





Source: RBP

Note: LFAS is an abbreviation of Load Following Ancillary Service. A type of FCESS known as Regulation replaced LFAS in the WEM on 1 October 2023.



Source: RBP

Note: LFAS is an abbreviation of Load Following Ancillary Service. A type of FCESS known as Regulation replaced LFAS in the WEM on 1 October 2023.).

3.1.4 Bilateral Trade Declarations

Market Participants assigned CRC are required to submit a bilateral trade declaration detailing the quantity of Reserve Capacity the Market Participant intends to trade bilaterally, in accordance with clause 4.14.1.

For the 2025-26 Capacity Year, AEMO has assigned 4,717 MW of Capacity Credits. Assuming there will be no changes to this assigned quantity³⁹, AEMO anticipates it will receive notification in accordance with clause 4.14.1(c) that 4,717 MW will be traded bilaterally for the 2026-27 Capacity Year.

3.1.5 Capacity required from new Facility's and Facility upgrades

The capacity investment gap is the difference between the preliminary Peak RCR calculated in accordance with clause 4.6.3 and the expected aggregate available capacity for the SWIS, based on the latest information available to AEMO, in a Capacity Year. The capacity investment gap is the amount of capacity expected to be required from new Facilities and upgrades of existing Facilities to meet peak demand (that is, Peak RCR).

For the 2026-27 RC Cycle, the preliminary Peak RCR is 5,716 MW (determined in accordance with clause 4.6.3). The latest information available to AEMO indicates that the expected aggregate available capacity for the SWIS, that is, the expected assigned CRC for the 2026-27 RC Cycle, is 4,717 MW. Accordingly, when the expected aggregate available capacity is subtracted from the Peak RCR, there is a capacity investment gap of 999 MW, for the 2026-27 Capacity Year⁴⁰.

³⁹ This does not include any capacity procured as part of the NCESS procurement for peak demand services for the 2024-25 and 2025-26 Capacity Years. The procurement outcome is available at <u>https://aemo.com.au/en/consultations/tenders/tenders-and-expressions-of-interest-for-ncess-reliability-services-wa</u>.

⁴⁰ See Table 4, 2023 WEM ESOO. Available at <u>https://aemo.com.au/en/energy-systems/electricity/wholesale-electricity-market-wem/wem-forecasting-and-planning/wem-electricity-statement-of-opportunities-wem-esoo.</u>

The Coordinator of Energy has triggered, at AEMO's request, an NCESS procurement process for reliability services to commence on 1 October 2025 with a two-year duration⁴¹. The NCESS procurement is being initiated ahead of the completion of the 2023 RC Cycle to allow sufficient time for applicants to deliver capacity. The NCESS procurement will seek up to 436 MW of reliability services to be provided during the 2025-2027 Capacity Years, with a minimum service size of 1 MW.

3.1.6 2026-27 Benchmark Reserve Capacity Price

The Peak BRCP for the 2026-27 Capacity Year is \$230,000.00 per MW. The 2026-27 Peak BRCP is 18.9% higher than the 2025-26 Peak BRCP (\$193,400 per MW). This increase is driven by increases in the weighted average cost of capital, increases in the cost of raw materials, and growth in global demand for generation⁴².

3.1.7 Expected Facility closures

The MUJA_G6 Facility, a 193 MW Scheduled Facility, has an expected closure date of 1 April 2025. MUJA_G6 will be placed on reserve outage mode from 1 October 2024 to 1 April 2025. During this mode, AEMO may request, with three days' notice, that the Facility be made available for significant peak demand events⁴³.

⁴¹ Available at <u>https://aemo.com.au/consultations/tenders/expressions-of-interest-and-tender-for-ncess-reliability-services-2025-27-wa</u>. ⁴² See the 2024 Benchmark Reserve Capacity Price for the 2026-27 capacity year by the Economic Regulation Authority. Available at

https://www.erawa.com.au/cproot/23833/2/2024-benchmark-reserve-capacity-price-for-the-202627-capacity-year.PDF.

⁴³ Available at <u>https://www.wa.gov.au/government/media-statements/Cook-Labor-Government/Muja-C-Unit-6-in-reserve-mode-and-online-for-summer-2024-25-20230817</u>.

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Glossary

Abbreviation	Definition
AEMO	Australian Energy Market Operator
CRC	Certified Reserve Capacity
DSP	Demand Side Programme
EOI	Expressions of Interest
ESOO	Electricity Statement of Opportunities
IFC	Indicative Facility Class
IRCR	Individual Reserve Capacity Requirement
NAFF	Network Augmentation Funding Facility
NAQ	Network Access Quantity
NCESS	Non-Co-optimised Essential System Service
Peak BRCP	Peak Benchmark Reserve Capacity Price
Peak RCP	Reserve Capacity Price
Peak RCR	Peak Reserve Capacity Requirement
Peak RCT	Peak Reserve Capacity Target
POE	Probability of Exceedance
RC Cycle	Reserve Capacity Cycle
RCM	Reserve Capacity Mechanism
RCP	Reserve Capacity Price
REOI	Request for Expressions of Interest
SWIS	South West interconnected system
WEM	Wholesale Electricity Market
WEM Rules	Wholesale Electricity Market Rules
WEMS	Wholesale Electricity Market System