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# 2020 Reserve Capacity Information Pack

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**June 2020**

A report for the Wholesale Electricity Market

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# Important notice

## PURPOSE

AEMO publishes the 2020 Reserve Capacity Information Pack under clause 4.7.2 of the Wholesale Electricity Market (WEM) Rules.

This publication has been prepared by AEMO using information published in the 2020 WEM Electricity Statement of Opportunities<sup>1</sup>.

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## VERSION CONTROL

Version	Release date	Changes
1.0	16/06/2020	Document creation

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<sup>1</sup> Available at: <https://aemo.com.au/energy-systems/electricity/wholesale-electricity-market-wem/wem-forecasting-and-planning/wem-electricity-statement-of-opportunities-wem-esoo>

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# 1. Background

Each year, AEMO must publish the Reserve Capacity Information Pack under clause 4.7.2 of the Wholesale Electricity Market (WEM) Rules for the South West interconnected system (SWIS) in Western Australia.

This Reserve Capacity Information Pack relates to the 2020 Reserve Capacity Cycle and sets the Reserve Capacity Requirement (RCR)<sup>2</sup> for the 2022-23 Capacity Year<sup>3</sup>, as published in the 2020 WEM Electricity Statement of Opportunities (ESOO).

The 2020 WEM ESOO presents AEMO's 2020 Long Term Projected Assessment of System Adequacy (PASA) for the SWIS over the 10-year Long Term PASA Study Horizon for the 2020-21 to 2029-30 Capacity Years. It provides information on the Request for Expressions of Interest (REOI) process completed in May 2020 and the Availability Classes and Availability Curve developed for the 2022-23 Capacity Year.

A more detailed discussion of the information in this document can be found in the 2020 WEM ESOO<sup>4</sup>.

Please direct any questions about this to AEMO's Reserve Capacity team on (08) 9469 9800 or [wa.capacity@aemo.com.au](mailto:wa.capacity@aemo.com.au).

## 2. Reserve Capacity Requirement

The RCR for the 2022-23 Capacity Year is **4,421 MW**.

## 3. Availability Classes

Certified Reserve Capacity (CRC) is classified into two classes based on capacity availability<sup>5</sup>:

- **Availability Class 1:** relates to all generation capacity, and any other capacity that is expected to be available for dispatch for all Trading Intervals, allowing for outages or other restrictions.
- **Availability Class 2:** relates to capacity that is not expected to be available for dispatch for all Trading Intervals.

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<sup>2</sup> The RCR is AEMO's determination of the total amount of generation or Demand Side Management capacity required in the SWIS to satisfy the Planning Criterion under clause 4.5.9 of the WEM Rules for a specific Reserve Capacity Cycle.

<sup>3</sup> A Capacity Year commences in the Trading Interval starting at 8:00 AM on 1 October and ends in the Trading Interval ending at 8:00 AM on 1 October of the following calendar year. All data in this WEM ESOO is based on Capacity Years unless otherwise specified.

<sup>4</sup> Available at: <https://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Planning-and-forecasting/WEM-Electricity-Statement-of-Opportunities>.

<sup>5</sup> See clause 4.11.4 and the definitions of "Availability Class 1" and "Availability Class 2" in Chapter 11 of the WEM Rules.

The 2020 Long Term PASA determined the minimum capacity required to be provided by Availability Class 1 capacity for the 2022-23 Capacity Year. The Availability Class 2 capacity allowance is equal to the RCR less the Availability Class 1 requirement. Capacity shortfalls occur when:

- Availability Class 1 capacity is less than the minimum Availability Class 1 capacity requirement.
- Availability Class 1 and Availability Class 2 capacity is less than the RCR.

The minimum Availability Class 1 capacity requirement and the capacity associated with Availability Class 2 for the 2022-23 Capacity Year is outlined in Table 1.

**Table 1 Availability Classes for the 2022-23 Capacity Year**

	<b>2022-23 (MW)</b>
Minimum capacity required to be provided by Availability Class 1	3,371
Capacity associated with Availability Class 2	1,050
RCR	4,421

Source: Robinson Bowmaker Paul (RBP).

## 4. Availability Curve

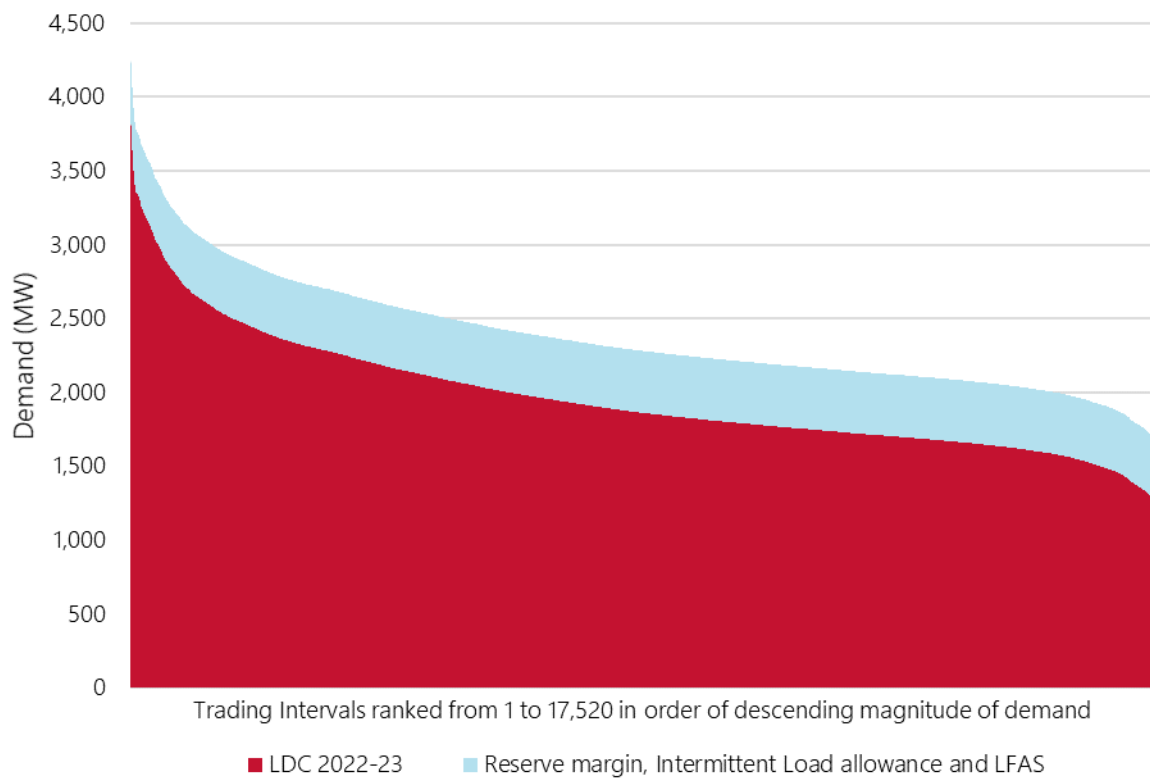
The Availability Curve is a two-dimensional duration curve of the forecast minimum capacity requirement for each Trading Interval over a Capacity Year<sup>6</sup>. The minimum capacity requirement for each Trading Interval is calculated as the sum of the forecast demand for that Trading Interval, reserve margin, Intermittent Load allowance, and the Load Following Ancillary Service (LFAS) capacity requirement.

The 2020 Long Term PASA study developed the Availability Curve for the 2022-23 Capacity Year, as shown in Figure 1.

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<sup>6</sup> As defined in clause 4.5.10(e) of the WEM Rules.

**Figure 1 2022-23 Capacity Year Availability Curve**



Source: RBP.

## 5. Expressions of Interest (EOI)

The *Request for EOI for the 2020 Reserve Capacity Cycle* was published on 31 January 2020. AEMO invited EOIs from new generation or Demand Side Management (DSM) Facilities seeking Certified Reserve Capacity and Capacity Credits for the 2022-23 Capacity Year.

The *2020 EOI Summary Report* was published on 15 May 2020. Three EOIs were received with a total of 62 MW of potential capacity, including one proposed non-intermittent generator and two intermittent generators.

The 2020 EOI and the corresponding summary report are available on AEMO's website<sup>7</sup>.

<sup>7</sup> Available at: <https://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Reserve-capacity-mechanism/Expressions-of-interest>.