2017 EXPRESSIONS OF INTEREST SUMMARY REPORT

FOR THE WHOLESALE ELECTRICITY MARKET

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AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

IMPORTANT NOTICE

Purpose

AEMO has prepared this document to provide information about the Western Australia Wholesale Electricity Market, as at the date of publication.

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1. BACKGROUND

Each year, the Australian Energy Market Operator (AEMO) requests expressions of interest (EOIs) from existing and potential new Market Participants to provide Reserve Capacity.[1] The purpose of the Reserve Capacity EOI is to provide AEMO with an indication of the amount of new generation and new Demand Side Management (DSM) capacity that existing and potential new Market Participants are willing to offer to make available as Reserve Capacity in the South West interconnected system (SWIS) of Western Australia (WA) for a Reserve Capacity Cycle.[2]

On 31 January 2017, AEMO requested EOIs for the 2017 Reserve Capacity Cycle that covers the 2019–20 Capacity Year.[3] EOI submissions closed on 1 May 2017.

AEMO must publish an EOI summary in accordance with the Wholesale Electricity Market (WEM) Rules for each Reserve Capacity Cycle.

This report provides a summary of EOIs submitted to AEMO for the 2019–20 Capacity Year for the WEM. In accordance with clause 4.2.7 of the WEM Rules, the report must outline the following information:

- The number of EOIs received.
- Based on the EOIs, the additional Reserve Capacity potentially available (which must be categorised).
- AEMO's estimate of the existing capacity eligible to be assigned Certified Reserve Capacity (CRC)[4] in the SWIS.
- The preliminary Reserve Capacity Requirement (RCR).[5]
- AEMO's preliminary estimates of the DSM Reserve Capacity Price (RCP)[6] for the 2017–18 to 2026–27 Capacity Years.

[1] Reserve Capacity is capacity provided by generation or DSM Facilities.
[2] A Reserve Capacity Cycle is a cycle of events (covering a four-year period) described in clause 4.1 of the WEM Rules.
[3] A Capacity Year is a period of 12 months commencing at the start of the Trading Day (8:00 AM) on 1 October and ending on the end of the Trading Day ending on 1 October (8:00 AM) of the following calendar year.
[4] Certified Reserve Capacity is a quantity of Reserve Capacity that AEMO has assigned to a Facility for a Reserve Capacity Cycle in accordance with the WEM Rules.
[5] The preliminary Reserve Capacity Requirement is AEMO's estimates of the total amount of generation or DSM capacity required in the SWIS to satisfy the Planning Criterion for a Capacity Year in accordance with the WEM Rules.
[6] Reserve Capacity Price is the price for Reserve Capacity determined in accordance with clause 4.29.1 of the WEM Rules and multiplied by 12 for a Reserve Capacity Cycle.

2. SUMMARY

AEMO received five EOIs for the 2019–20 Capacity Year. Four EOIs relate to proposed new intermittent generators and the other EOI relates to a proposed upgrade to an existing intermittent generator. In total, 323.2 MW of proposed nameplate capacity of intermittent generation has been received for the 2019–20 Capacity Year. The 323.2 MW of proposed Reserve Capacity would be eligible for CRC in the 2019–20 Capacity Year.

AEMO assigns CRC for intermittent generators in accordance with the Relevant Level Methodology outlined in Appendix 9 of the WEM Rules. Based on CRC assigned for the 2015–16, 2016–17 and 2017–18 Capacity Years, the average capacity factors for intermittent generators (wind and solar) have ranged between 26.7% and 40%.

2.1 Reserve Capacity supply and demand analysis

The Deferred 2015 Electricity Statement of Opportunities[7] for the WEM forecast a preliminary RCR of 4,670 MW for the 2019–20 Capacity Year.

In November 2016, a Ministerial Direction was tabled in the WA Parliament to ensure that Synergy will reduce its non-renewable generation nameplate capacity by 1 October 2018.[8] On 5 May 2017, the WA Government announced its plans to reduce a total of 437 MW of Synergy's non-renewable generation nameplate capacity.[9] This reduction will affect the capacity supply-demand balance in the SWIS for the 2019–20 Capacity Year.

Based on the Capacity Credits[10] allocated for the 2017–18 Capacity Year[11], the reduction of Synergy's 437 MW of generation nameplate capacity translates into 387.5 MW of Capacity Credits assigned for the 2017–18 Capacity Year. Two potential supply-demand balance scenarios for capacity have been developed for the 2019–20 Capacity Year and are outlined in Table 1.

Table 1 Preliminary supply-demand scenarios for the 2019–20 Capacity Year

	Scenario 1 (assuming 323.2 MW of new Reserve Capacity is made available, MW)	Scenario 2 (assuming 323.2 MW of new Reserve Capacity is not made available, MW)
Capacity Credits assigned for the 2017–18 Capacity Year	5,193.900	5,193.900
Synergy's Capacity Credits reduction by 1 October 2018	387.500	387.500
Potential Reserve Capacity provided by 2017 EOIs	323.200	0.000
Estimate of the existing capacity eligible to be assigned Certified Reserve Capacity for the 2019–20 Capacity Year	5,129.600	4,806.400
Preliminary RCR for the 2019–20 Capacity Year	4,670.000	4,670.000
Estimated excess capacity for the 2019–20 Capacity Year	459.600	136.400
Excess capacity of the preliminary RCR	9.8%	2.9%

Under Scenario 1, the nameplate generation capacity of 323.2 MW (which is distinct from the CRC level) would be applied as AEMO does not have sufficient information that would allow the estimation of

[7] AEMO. 2016. *Deferred 2015 Electricity Statement of Opportunities for the WEM.* Available at: https://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Planning-and-forecasting/WEM-Electricity-Statement-of-Opportunities.

[8] WA Parliament, 2016. *Electricity Corporations Act 2015 – Ministerial Direction*. Available at: http://parliament.wa.gov.au/publications/tabledpapers.nsf/displaypaper/3914903a6b61c1cde6d034044825806e0027dedb/$file/4903.pdf. Viewed: 20 January 2017.

[9] Government of Western Australia, 2017. *Synergy to reduce electricity generation cap by 2018*. Available at: https://www.mediastatements.wa.gov.au/Pages/McGowan/2017/05/Synergy-to-reduce-electricity-generation-cap-by-2018.aspx. Viewed: 5 May 2017.

[10] A Capacity Credit is a notional unit of Reserve Capacity provided by a Facility during a Capacity Year.

[11] The total quantity of Capacity Credits assigned for the 2017–18 Capacity Year was 5,193.9 MW. Available at: https://www.aemo.com.au/Electricity/Wholesale-Electricity-Market-WEM/Reserve-capacity-mechanism/Assignment-of-capacity-credits.

an EOI applicant's CRC. The estimated excess capacity of 459.6 MW for the 2019–20 Capacity Year represents the upper limit of excess capacity based on available information at the time of this report's publication.

Under Scenario 2, the estimated excess capacity of 136.4 MW for the 2019–20 Capacity Year represents the lower limit of excess capacity based on available information at the time of this report's publication.

2.2 Categories of EOI submissions

Table 2 outlines a summary of the five EOI submissions for the 2017 Reserve Capacity Cycle in accordance with clauses 4.2.7(a), (b), (c) and (d) of the WEM Rules.

Table 2 Summary of five EOIs for the 2017 Reserve Capacity Cycle

Summary of Expressions of Interest	2019–20 Capacity Year (MW)
Committed Facilities (in place or under construction)	20.000
Facilities that are not yet committed	303.200
Total	**323.200**
For Facilities that are not yet committed	
Facilities for which an Access Proposal has been made and all necessary Environmental Approvals granted	0.000
Facilities for which applications for both Access Proposals and Environmental Approvals have been made and one or both are being processed	303.200
Facilities for which no Access Proposal has been applied for or some or all Environmental Approvals have not been applied for	0.000
Total	**303.200**
Categorisation based on plant type	
Intermittent generators	323.200
Non-intermittent generators	0.000
Demand side management	0.000
Total	**323.200**
Categorisation based on primary fuel type	
Diesel	0.000
Natural gas	0.000
Renewable Energy	323.200
Total	323.200
Categorisation based on backup/alternate fuel option	
None or not applicable	323.200
Total	**323.200**

2.3 Estimates of DSM RCP

AEMO has developed a Market Procedure: *Determination of Expected DSM Dispatch Quantity and DSM Activation Price* to document the process that it will follow when calculating the Expected DSM

Dispatch Quantity and the DSM Activation Price. The proposed commencement date for the new Market Procedure is 1 June 2017.[12]

Until the new Market Procedure is published and commences:

- AEMO must calculate the Expected DSM Dispatch Quantity under clause 4.5.14E of the WEM Rules.
- The DSM Activation Price is currently specified as $33,460/MWh in clause 4.5.14F of the WEM Rules.

Table 3 outlines the Expected DSM Dispatch Quantities in clause 4.5.14E of the WEM Rules and AEMO's preliminary estimates of the DSM RCP.

Table 3 The Expected DSM Dispatch Quantity and DSM RCP

Reserve Capacity Cycle	Capacity Year	Expected DSM Dispatch Quantity (MWh)	Estimated DSM RCP ($/MW)
2015	2017–18	6.1	18,656
2016	2018–19	9.1	19,603
2017	2019–20	13.7	21,055
From 2018	2020–21	22.2	23,738

The Expected DSM Dispatch Quantity and the preliminary estimate of the DSM RCP for each Capacity Year outlined in Table 3 have not been updated, as none of the new Reserve Capacity (indicated in the EOI responses) relates to new DSM capacity for the 2019−20 Capacity Year.

[12] AEMO. PC_2017_01: *Market Procedure: Determination of Expected DSM Dispatch Quantity and DSM Activation Price*. Available at: https://aemo.com.au/Stakeholder-Consultation/Consultations/PC_2017_01.