WHOLESALE ELECTRICITY MARKET: REQUEST FOR EXPRESSIONS OF INTEREST

FOR THE 2015 AND 2016 RESERVE CAPACITY CYCLES

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AEMO
AUSTRALIAN ENERGY MARKET OPERATOR

IMPORTANT NOTICE

Purpose

AEMO has prepared this document to invite proponents to provide Expressions of Interest for the provision of generation and/or Demand Side Management (DSM) capacity into the Wholesale Electricity Market in Western Australia, as at the date of publication.

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EXECUTIVE SUMMARY

Expressions of Interest (EOI) are invited from proponents of new generation and Demand Side Management (DSM) capacity that will be available for commercial service for the 2017-18 and 2018-19 Capacity Years[1] in the South West interconnected system (SWIS). The EOI forms with supporting documentation are due to be submitted to the Australian Energy Market Operator (AEMO) by **2 May 2016**.

The main purpose of the Request for EOI is to alert prospective investors to the Reserve Capacity Mechanism (RCM) and to allow proponents to provide information to AEMO on projects under consideration for the 2017-18 and 2018-19 Capacity Years. Submitting an EOI also ensures the proponent receives all information and updates relating to the RCM process.

In addition to submitting an EOI, project proponents are encouraged to engage with AEMO to understand the various aspects of the RCM cycle, and to commence the process to secure all relevant approvals, particularly network access and environmental approvals. These processes are critical to the assignment of Certified Reserve Capacity (CRC).

The RCM ensures that sufficient CRC is available to meet future peak demand, plus a reserve margin. An important part of this process is to forecast peak demand for the relevant Capacity Year. The total capacity required to meet the forecasted peak demand, plus a reserve margin, is determined through the Long Term Projected Assessment of Supply Adequacy, which is expected to be published in the upcoming Electricity Statement of Opportunities (ESOO) in June 2016.

Based on the 2014 ESOO forecasts, it is estimated there will be surplus capacity of 1,019 MW and 987 MW for the 2017-18 and 2018-19 Capacity Years, respectively, assuming the level of Capacity Credits assigned for the 2016-17 Capacity Year remains unchanged.

Table ES.1: Estimated Reserve Capacity Requirements for 2017-18 and 2018-19

2014 ESOO	Reserve Capacity Requirement (MW)	Capacity Credits 2016-17 (MW)	Estimated surplus (MW)
2017-18	4,599	5,618	1,019
2018-19	4,631	5,618	987

According to the 2014 ESOO forecast, energy consumption in the SWIS is expected to grow at approximately 1.3 per cent per annum between 2015-16 and 2024-25, while peak electricity demand is forecast to grow at around 0.8 per cent per annum under the 10 per cent Probability of Exceedance scenario over the same period.

AEMO will update the demand forecasts and publish the Reserve Capacity Requirements for the 2017-18 and 2018-19 Capacity Years in the 2015 ESOO, expected to be published by 17 June 2016.

For information on any aspect of the RCM, proponents are encouraged to contact System Capacity (WA) at wa.capacity@aemo.com.au.

Electricity Market Review

At the time of publishing this Request for EOI, the Western Australian (WA) Government is considering several reforms to improve the operation of the WEM under the Electricity Market Review (EMR).

[1] A Capacity Year runs from 1 October to 1 October the following year. Therefore, the 2017-18 Capacity Year is for capacity available from 1 October 2017 to 1 October 2018, while the 2018-19 Capacity Year runs from 1 October 2018 to 1 October 2019.

As part of the review, the WA Minister for Energy issued a direction[2] to the Independent Market Operator (IMO)[3] in March 2015 to defer certain aspects of the 2015 Reserve Capacity Cycle for the 2017-18 Capacity Year by one year as follows:

- the Request for EOI to 29 January 2016;
- accepting applications for CRC to 2 May 2016; and
- the 2015 ESOO report to 17 June 2016.

The 2015 and the 2016 Reserve Capacity Cycles are scheduled to run concurrently in 2016[4].

The latest information on the level of capacity available in the SWIS is from the Capacity Credit allocations for the 2014 Reserve Capacity Cycle[5] (for the 2016-17 Capacity Year).

The Public Utilities Office (PUO) released a position paper[6] on 3 December 2015, outlining proposed reforms and transitional changes to the RCM under the EMR. The position paper proposes several reforms and transitional arrangements the PUO intends to introduce to the RCM for the 2015 Reserve Capacity Cycle. In addition, the position paper proposed a design for auction mechanism to replace the current method for setting the Reserve Capacity Price (RCP).

The proposed reforms are:

- adopting an auction to procure capacity, with the first auction to occur when excess capacity has fallen;
- transition arrangements for a period before the first auction including changing the formula for calculating the RCP and treating DSM separately from generators;
- harmonising DSM availability requirements with those for generators; and
- including stronger incentives for all capacity to be available for dispatch.

[2] See http://wa.aemo.com.au/docs/default-source/Reserve-Capacity/2006_capacity_cap_direction.pdf?sfvrsn=2.
[3] On 30 November 2015, most of the IMO's functions in operating the WEM and RCM were transferred to AEMO. For more information, see http://www.aemo.com.au/News-and-Events/News/News/AEMO-extends-role-to-Western-Australia.
[4] The Reserve Capacity Timetables for the 2015 and 2016 Reserve Capacity Cycles are available on AEMO's website: http://www.aemo.com.au/News-and-Events/News/News/AEMO-extends-role-to-Western-Australia.
[5] See http://wa.aemo.com.au/home/electricity/reserve-capacity/assignment-of-capacity-credits.
[6] See https://www.finance.wa.gov.au/cms/Public_Utilities_Office/Electricity_Market_Review/Wholesale_Electricity_Market_Improvements.aspx

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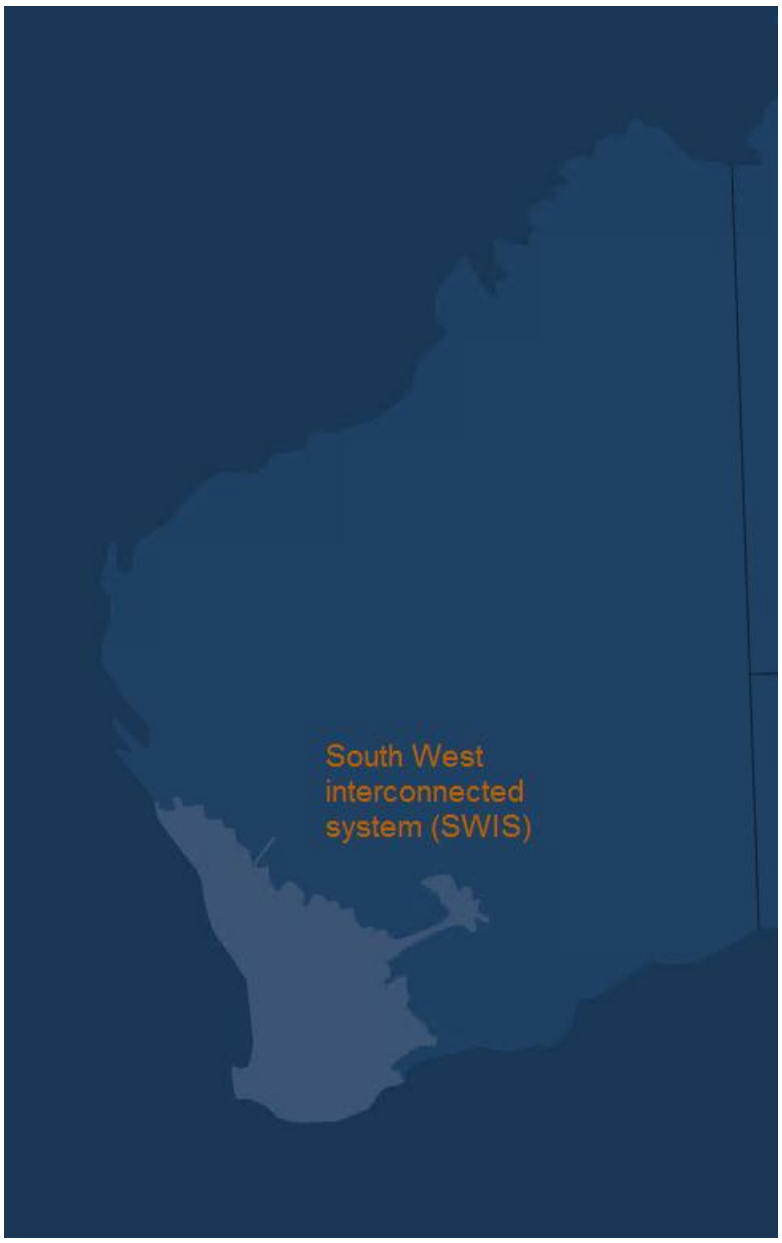
CHAPTER 1. INTRODUCTION

This Request for Expression of Interest (EOI) relates to the Wholesale Electricity Market (WEM) which operates in the South West interconnected system (SWIS). The SWIS covers the south-west of the state, extending north to Kalbarri, south to Albany and east to Kalgoorlie (Figure 1.1).

Figure 1.1: Western Australia (WA) and the SWIS



1.1 Reserve Capacity Mechanism

The SWIS is an isolated system with a high summer peak demand relative to average load. To ensure that sufficient generation and Demand Side Management (DSM) capacity is available to meet future peak demand in the SWIS, the WEM includes a capacity market, the Reserve Capacity Mechanism (RCM).

The RCM is built around the concept of a 'Capacity Credit', a notional unit of capacity that can be traded between Market Participants. Capacity Credits are assigned to individual generation and DSM Facilities and are valid for a single Capacity Year[7]. All types of generation and DSM capacity that can meet the timelines and requirements outlined in the Wholesale Electricity Market Rules (Market Rules) may participate in the RCM.

In return for receiving payments for Capacity Credits, there are a number of obligations imposed on Capacity Credit holders. The most significant obligation is that certified capacity must be offered into the SWIS at all times, unless the Facility is undergoing an approved outage. If capacity is not offered into the SWIS, such as during a forced outage, the Capacity Credit holder is required to pay Reserve Capacity refunds to the market.

Market Customers must purchase Capacity Credits based on their consumption at system peak times in the previous year through the Individual Reserve Capacity Requirement (IRCR). Market Customers can either purchase Capacity Credits through direct bilateral contracts with capacity providers or through AEMO at an administered price, the Reserve Capacity Price (RCP).

If the level of capacity offered through bilateral trades is insufficient to meet the capacity requirement, AEMO may conduct a Reserve Capacity Auction to procure additional capacity.

[7] A Capacity Year runs from 1 October to the following 1 October.

Figure 1.2: Timeline for bringing new capacity to the SWIS for the 2017-18 and 2018-19 Capacity Years

Each year, AEMO forecasts the level of capacity required to meet forecast peak demand while ensuring that the system reliability criteria are met for the following 10 years. This Reserve Capacity Requirement (RCR) is calculated as the peak demand forecast of 'one-in-10-year' conditions[8], plus a margin to cover unplanned Facility outages and provide frequency stability[9].

A summary timeline for the process is shown in Figure 1.2.

As the 2015 Reserve Capacity Cycle was deferred until 2016, the RCR for the 2017-18 and 2018-19 Capacity Years will be published in the 2015 ESOO by 17 June 2016.

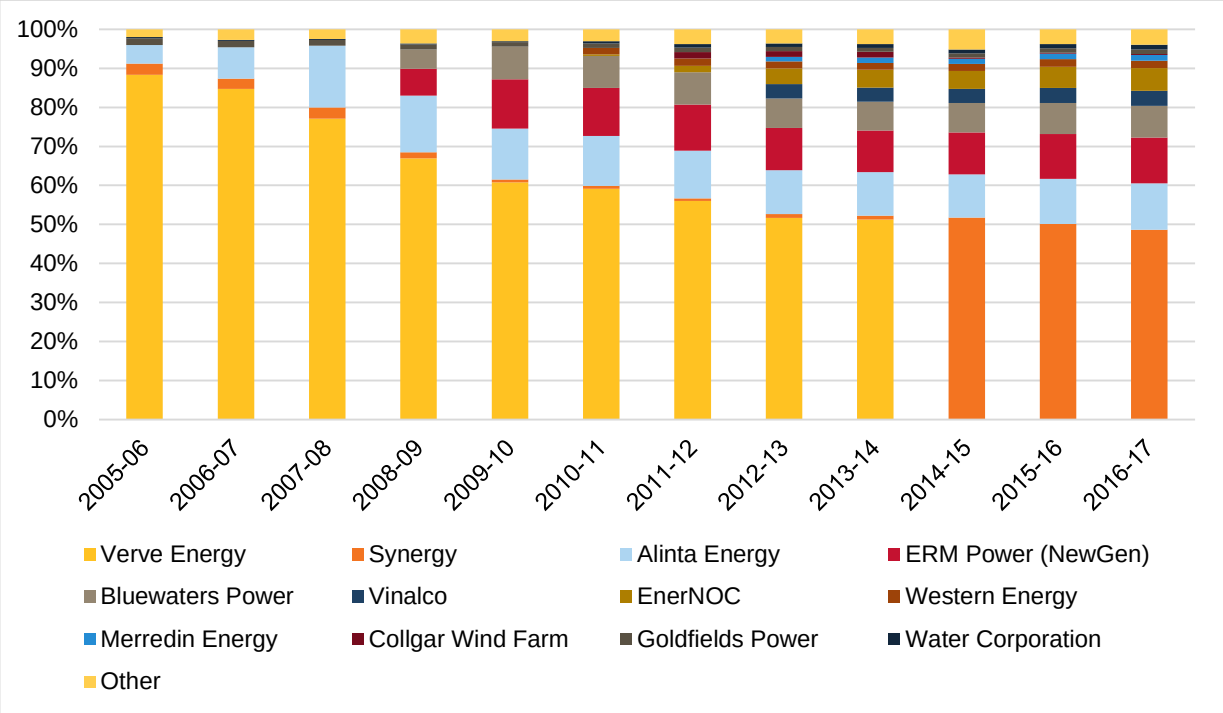
[8] One-in-ten-year demand conditions are a common benchmark in electricity markets when considering reserve margin levels, including the National Electricity Market (NEM) and major US electricity markets including PJM, New York Independent System Operator (ISO) and New England ISO.

[9] As specified in the Market Rules.

1.2 Existing generation and DSM capacity

The number of Market Participants has increased three-fold since the commencement of the WEM. Figure 1.3 shows the proportion of capacity provided by Synergy[10] has fallen from 88 per cent in 2005-06 to approximately 50 per cent of the total SWIS capacity in 2016-17.

Figure 1.3: Proportion of Capacity Credits by Market Participant, 2005-06 to 2015-16



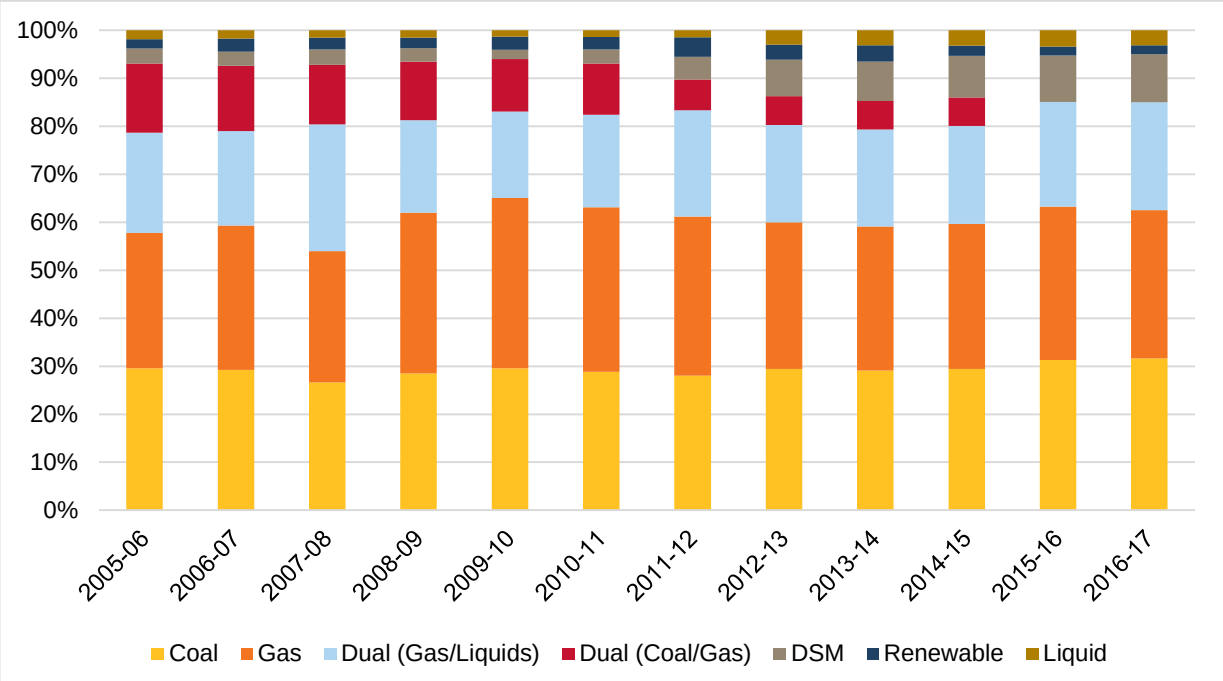
Source: 2014 ESOO and AEMO

The WEM has become increasingly competitive, with a healthy mix of fuel types. Capacity has increased for all fuel types, with the exception of dual-fuelled coal and gas Facilities, which reduced to zero following the retirement of Synergy's Kwinana G5 (177.5 MW) in 2014 and Kwinana G6 (184 MW) in 2015.

More information on generation and DSM capacity in the SWIS is available in the 2014 ESOO.

[10] This includes the generation capacity previously provided by Verve Energy and DSM capacity provided by Synergy. The two entities merged on 1 January 2014.

Figure 1.4: Proportion of Capacity Credits by fuel, 2005-06 to 2016-17



Source: 2014 ESOO and AEMO

1.3 Future electricity demand and supply-demand balance

Over the next two years, the total capacity in the SWIS will decline due to the retirement of South West Cogeneration (107 MW from the 2016-17 Capacity Year). The forecast Capacity Credits and RCR in the 2014 ESOO are shown in Figure 1.5.

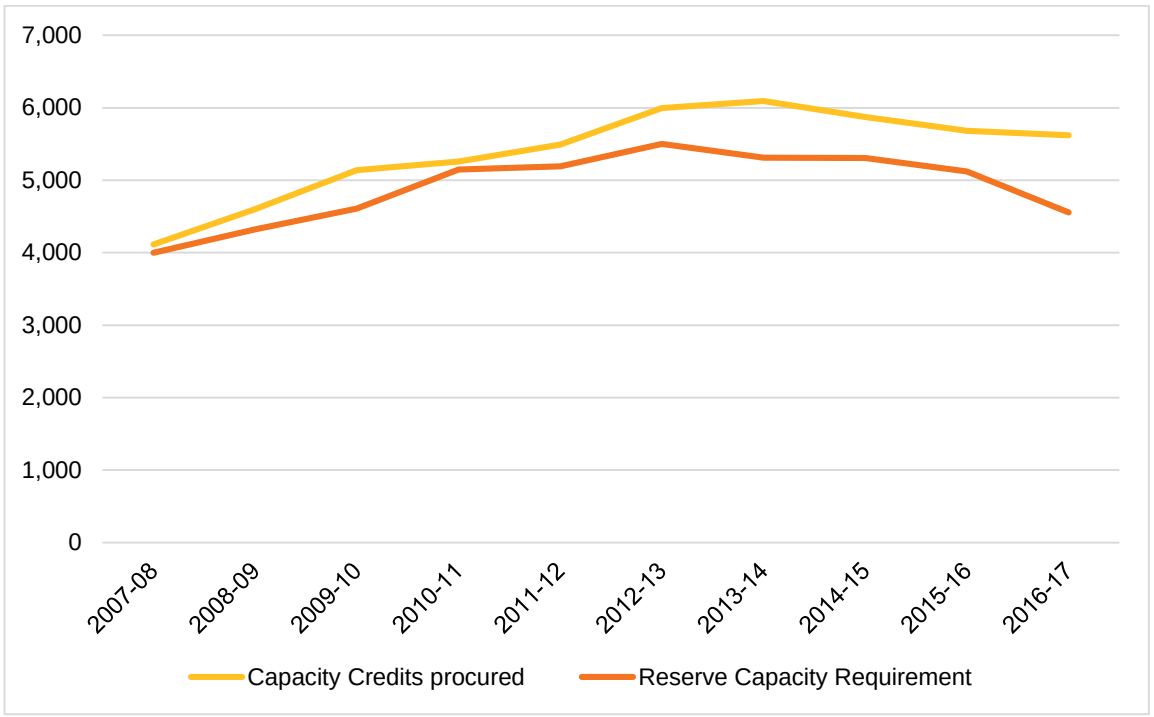
Figure 1.5 shows excess capacity in the WEM has grown since 2007-08 and is estimated to be 23 per cent of the RCR of 4,557 MW for the 2016-17 Capacity Year.

A number of factors have contributed to the consistent increase in excess capacity, including:

- the outcomes of Government policy decisions, such as the Synergy displacement tender, the refurbishment of Muja AB and the solar feed-in tariff;
- downward revisions to peak demand forecasts; and
- the limited responsiveness of the RCP to market conditions.

Electricity markets in many developed economies have experienced an unprecedented shift in electricity demand patterns in recent years. Lower demand growth in the SWIS has been driven by technological advancement (including solar PV), behavioural changes and retail price increases. Figure 1.5 shows a reduction in the RCR in the SWIS over the last four years.

Figure 1.5: Capacity Credits and the RCR, 2007-08 to 2016-17



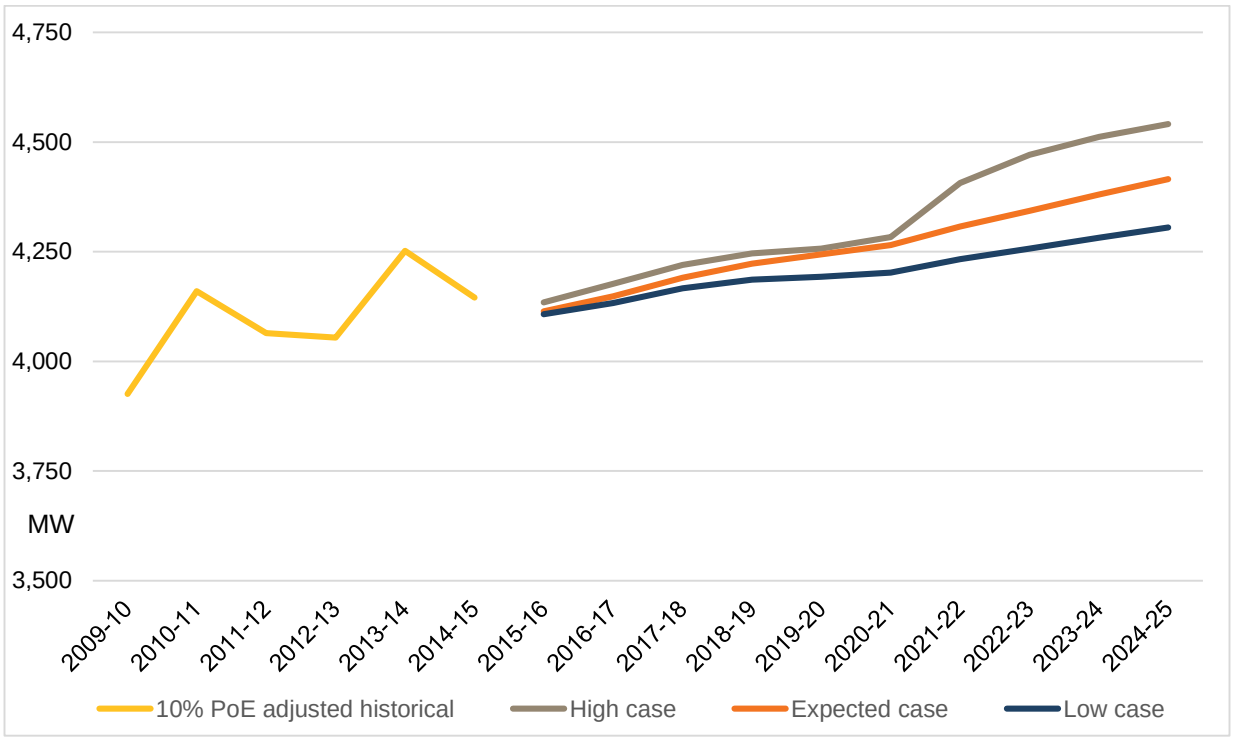
Source: AEMO

Accordingly, the 2014 ESOO forecasts are lower than the previous three ESOOs. These reductions were driven by a number of factors including:

- the continued effectiveness of the IRCR mechanism, resulting in some commercial and industrial customers curtailing consumption at times of peak demand to reduce exposure to capacity costs (IRCR payments);
- new large loads (principally mining loads) not coming online as forecast;
- the moderation of demand growth due to increases in domestic regulated tariffs, continued growth in solar PV uptake and energy efficiency programs; and
- lower economic growth projections for Western Australia due to lower forecast commodity prices in the medium term.

Forecasts reported in the 2014 ESOO are shown in Figure 1.6. The 2014 ESOO forecasts the one-in-10-year peak demand will grow at 0.8 per cent per annum for the 2015-16 to 2024-25 period.

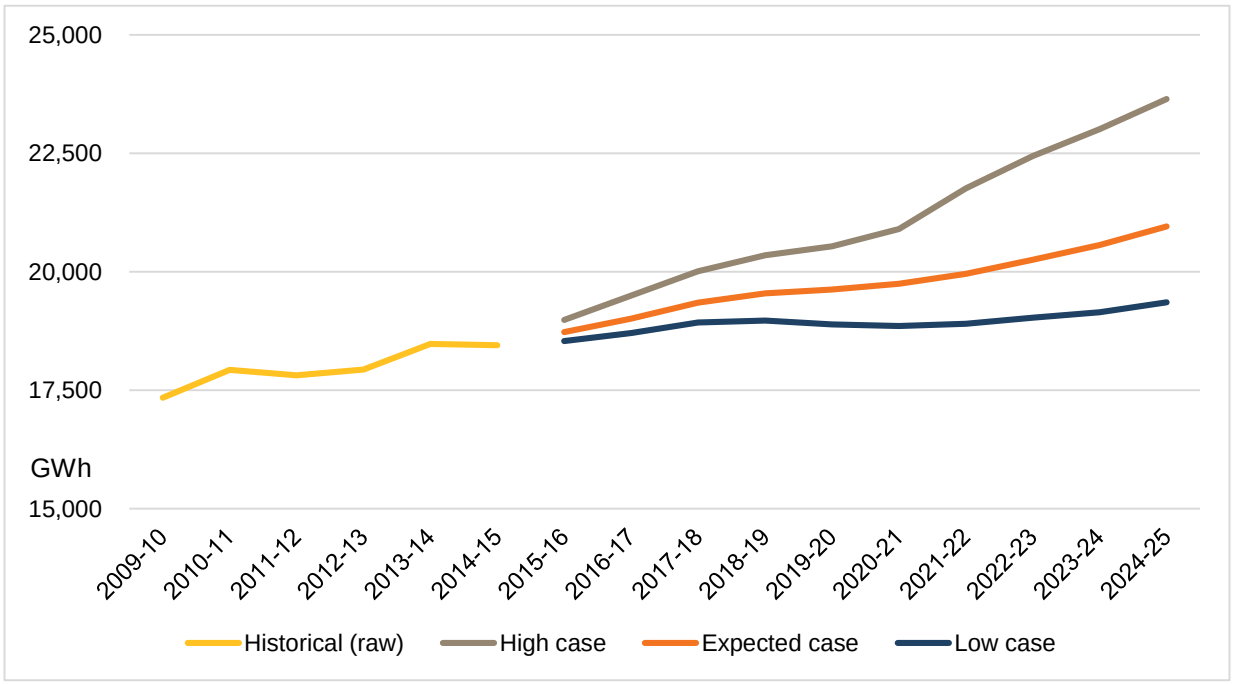
Figure 1.6: Forecast maximum demand – expected economic growth (2014 ESOO)



Source: 2014 ESOO

The forecast growth rates for annual electricity demand vary widely across a range of different economic growth scenarios (Figure 1.7). The 2014 ESOO forecasts suggests annual electricity is projected to grow at a rate of 1.3 per cent per annum on average for the 2015-16 to 2024-25 period.

Figure 1.7: Forecast sent-out energy (GWh) (2014 ESOO)



Source: 2014 ESOO

Preliminary estimates for the 2017-18 and the 2018-19 Capacity Years reported in the 2014 ESOO are that the RCR will be 4,599 MW and 4,631 MW[11], respectively. Assuming the level of Capacity Credits assigned for the 2016-17 Capacity Year remains unchanged, approximately 5,618 MW of capacity is expected to be in service in both Capacity Years. This includes 5,058 MW of generating capacity and 560 MW of DSM capacity.

The level of RCR reported in the 2014 ESOO indicates that there is an estimated capacity surplus of 1,019 MW for the 2017-18 Capacity Year and 987 MW for the 2018-19 Capacity Year.

Based on previous declarations by Market Participants, AEMO anticipates that all of the 5,618 MW of Reserve Capacity expected to be in service in the 2017-18 and 2018-19 Capacity Years will be traded bilaterally between Market Participants.

The quantity of excess capacity is likely to differ from the preliminary value presented in this document due to changes in forecast electricity demand, new generation and DSM capacity being considered, retirement of Facilities or a reduction of DSM capacity by Market Participants.

Proposed projects will be included in future determinations of the supply-demand balance based on data gathered through this Request for EOI process. These will be summarised in the 2015 ESOO.

[11] See Table 7.1 (page 73) of the 2014 ESOO report.

CHAPTER 2. KEY REQUIREMENTS FOR THE CERTIFICATION OF RESERVE CAPACITY

AEMO undertakes an annual certification process to confirm that:

- a Facility is capable of delivering the capacity (in MW) that the Market Participant has applied for; and
- a new Facility (or additional capacity at an existing Facility) that is yet to commence operation can provide capacity to the SWIS by 1 October, at the latest, in the Capacity Year it starts operating.

All Market Participants (new and existing) wishing to receive capacity payments must apply for Certification of their Facilities during the Certification period. Certification is required each year for new and existing Facilities to allow Market Participants to apply for Capacity Credits. The principles applied by AEMO to assess the level of Certified Reserve Capacity (CRC) assigned to a Facility are outlined in clause 4.11.1 of the Market Rules.

Typically, the Capacity Credits granted to a Facility are equal to the quantity of CRC assigned by AEMO for a Facility, either through the bilateral trade declaration process or through the Reserve Capacity Auction if one is held.

From Monday 2 May 2016 through to Friday 1 July 2016, a Market Participant may apply to AEMO to have the capacity of its Facility certified for the 2017-18 and 2018-19 Capacity Years. The Market Participant must demonstrate its Facility will be able to deliver capacity into the SWIS for those Capacity Years. To be eligible for CRC, new Facilities must be in commercial operation no later than 1 October 2017 for the 2017-18 Capacity Year and by 1 October 2018 for the 2018-19 Capacity Year.

Sections 4.9 to 4.11 of the Market Rules describe the application process and the setting of CRC. Information that must be provided for the CRC process[12] is listed in clause 4.10.1 of the Market Rules. More information is provided in the Market Procedure: Certification of Reserve Capacity[13]. Details of Participant Registration with AEMO, transmission network access and environmental approvals are provided in the following sections.

[12] See http://wa.aemo.com.au/home/electricity/reserve-capacity/certification-of-reserve-capacity.
[13] See http://wa.aemo.com.au/home/electricity/procedures.

Table 2.1 shows the prices for Capacity Credits for the 2014-15 to 2016-17 Capacity Years and also reports the Maximum Reserve Capacity Price (MRCP) for the 2017-18 and 2018-19 Capacity Years.

Table 2.1: Capacity Credit prices in the WEM

Start date	End date	Reserve Capacity Auction Requirement	MRCP ($/MW/year)	RCP ($/MW/year)	Monthly Reserve Capacity Price ($/MW/month)
1 October 2014	1 October 2015	No Auction	$163,900	$122,427.87	$10,202.32
1 October 2015	1 October 2016	No Auction	$157,000	$120,199.31	$10,016.61
1 October 2016	1 October 2017	No Auction	$176,800	$121,888.94	$10,157.41
1 October 2017	1 October 2018	Not Applicable	$164,800	To be determined	To be determined
1 October 2018	1 October 2019	Not Applicable	$164,800 (draft $156,400)[14]	To be determined	To be determined

The Capacity Credit payments not traded bilaterally are made in 12 monthly payments equal to the number of Capacity Credits granted to a Market Participant multiplied by the monthly Reserve Capacity Price.

2.1 Participant Registration with AEMO and Facility creation

To be eligible for CRC:

- the proponent must be registered as a Market Participant in the WEM; and
- the Facility must have been created in the Wholesale Electricity Market System (WEMS). It is important to note that Facility creation is different from Facility registration, as it merely creates a Facility name in WEMS and reflects the Market Participant's intention to register a Facility in the future.

Registration and Facility creation must be completed before applying for CRC. Satisfying these registration conditions, from the lodgement of an application for WEMS access to the creation of a Facility, usually takes between 15 to 30 business days. However, this process can take much longer, depending on the information provided by the proponent. AEMO strongly encourages project proponents to contact the Market Operations (WA)[15] team as early as possible to ensure they can satisfy these requirements prior to submitting a CRC application.

The Market Participant registration process, including the application for WEMS access, is outlined in the Market Procedure: Rule Participant Registration and De-Registration, while the Facility creation process is outlined in Section 4.1 of the Market Procedure: Facility Registration, De-Registration and Transfer. These procedures are available on the WA AEMO website[16].

2.2 Transmission Network Access

For certification of a scheduled or intermittent generator, a proponent will be required to provide evidence of network access for each Facility. Acceptable documentation includes an Electricity Transfer Access Contract, a Network Access Agreement, an Access Offer or Preliminary Access Offer from Western Power.

The documentation must outline the terms of access and details of any constraints, such as runback schemes or DSOC arrangements that apply, as required by clause 4.10.1(bA) of the Market Rules. It

[14] As the ERA has not approved the MRCP for the 2018-19 Capacity Year, in accordance with clause 4.3.1(f), the Request for Expressions of Interest must publish the most current approved Maximum Reserve Capacity. This is $164,800 for 2017-18 Capacity Year. The draft MRCP figure for 2018-19 Capacity Year, published on 6 November 2015 is provided for comparison.

[15] Contact details are available on the WA AEMO website at http://wa.aemo.com.au/home/Perth-Office/contact-us-wa.

[16] See http://wa.aemo.com.au/home/electricity/procedures.

must also contain information that validates the ability of the network to accommodate the connection of the Facility to the SWIS grid.

The timeframe for a proponent to receive network access varies with the type of generation, location and the existing queue of applicants. In many cases, receiving access to the transmission system may take longer than the two-year time horizon of the RCM. AEMO strongly encourages project proponents to contact Western Power as early as possible to ensure their project can progress through the RCM process.

2.3 Environmental approvals

Clause 4.10.1(c)(ii) of the Market Rules specifies the environmental approvals that must be in place before applying for CRC.

Developers of generation Facilities must refer their projects to the Environmental Protection Authority (EPA)[17] as the first step in securing environmental approvals. The EPA provides a substantial amount of information on its website and proponents are strongly encouraged to read this and to allow for adequate time to complete the required approval processes for CRC.

2.4 Key steps following the Certification of Reserve Capacity

2.4.1 Assignment of Capacity Credits

Following the CRC process, AEMO assigns Capacity Credits to Facilities after the bilateral trade declaration process. Market Participants that have been assigned CRC must declare (to AEMO) whether they intend to secure bilateral contracts for their CRC, withdraw their capacity, or offer it into the Reserve Capacity Auction.

Once bilateral trade declarations are completed, AEMO assigns Capacity Credits to Facilities in accordance with the priority outlined in Appendix 3 of the Market Rules. Capacity Credits are first assigned to all committed or operating capacity that have indicated an intention to bilaterally trade capacity. If the total quantity of committed or operating capacity is sufficient to meet the RCR, no additional Capacity Credits are assigned. However, if the required capacity level has not been reached, AEMO will assign Capacity Credits to Proposed Facilities (not yet committed) where the Market Participant has indicated its intention to trade capacity bilaterally.

If further capacity is required for a Capacity Year, AEMO will run a Reserve Capacity Auction in accordance with sections 4.15 to 4.19 of the Market Rules. No Reserve Capacity Auction has been required since the commencement of the WEM.

Applicants must submit bilateral trade declarations by Friday 2 September 2016. At this stage, Market Participants are only required to declare whether they intend to bilaterally trade Capacity Credits and are not required to have bilateral contracts in place. Market Participants would be required to register new Facilities prior to the Capacity Year in which they will commence operations.

[17] See http://www.epa.wa.gov.au.

2.4.2 Payment for Capacity Credits

If enough capacity has been secured through bilateral trade nominations (this has occurred every year since the commencement of the WEM), AEMO sets the price for all uncontracted Capacity Credits using the following formula (clause 4.29.1 of the Market Rules):

$$\text{RCP} = \frac{\text{MRCP x 85\% x RCR}}{\text{Total Capacity Credits assigned}}$$

Proponents should note that this formula may change for the 2017-18 Capacity Year and onwards if transition arrangements outlined in the PUO's proposed reforms for the RCM are implemented[18]. The proposed changes are likely to reduce the payment of Capacity Credits for uncontracted capacity by making the RCP more responsive to the level of Capacity Credits, resulting in better signals for investment in new capacity.

2.4.3 Special Price Arrangements

If a Reserve Capacity Auction is held, new capacity that is cleared in the auction will have the option to accept a Long Term Special Price Arrangement. This allows a Market Participant to receive the auction price, including an adjustment for inflation, for up to 10 years from the commissioning date without being required to participate in the Reserve Capacity Auction again. This provides revenue certainty for new Facilities.

Special Price Arrangements are only available to new Facilities if a Reserve Capacity Auction is held.

2.4.4 Reserve Capacity Security

When a Market Participant seeks assignment of Capacity Credits for a Facility that has not entered service, is being upgraded or will undergo significant maintenance, it must provide AEMO with Reserve Capacity Security (RCS).

RCS covers the risk of new capacity not coming online by 1 October of each Capacity Year. RCS can be provided in the form of a bank guarantee, a bank undertaking or a cash deposit and is set at 25 per cent of the MRCP for each Capacity Credit assigned to that Facility.

RCS is required at the time of:

- Bilateral Trade Declarations, for capacity that will be traded bilaterally; or
- offers being submitted for the Reserve Capacity Auction, for capacity offered into the auction.

RCS is returned to the Market Participant:

- if the Facility fails to secure Capacity Credits;
- during the Capacity Year, if the Market Participant applies for the return of the RCS, and the Facility has been assessed to be in commercial operation by reaching 100 per cent of the required output level, thus satisfying its capacity obligations; or
- at the end of the Capacity Year if the Facility has been assessed as in commercial operation by achieving 90 per cent of the required output.

Alternatively, the RCS may be drawn upon by AEMO if the Facility fails to achieve 90 per cent of the required output. If AEMO draws on the RCS, it is used to offset the cost of any Supplementary Reserve Capacity required. The remainder is refunded to Market Customers in proportion to their IRCR. Information on RCS is in section 4.13 of the Market Rules and in the Market Procedure: Reserve Capacity Security.

[18] See https://www.finance.wa.gov.au/cms/uploadedFiles/Public_Utilities_Office/Electricity_Market_Review/Position-Paper-on-Reforms-to-the-Reserve-Capacity-Mechanism.pdf.

2.4.5 Obligations on Facilities receiving Capacity Credits

All certified Facilities that have been assigned Capacity Credits must make their capacity available during the periods specified at the time of certification. Facilities (with the exception of DSM) are required to demonstrate this by offering their capacity into the Short Term Energy Market (with the exception of intermittent generators) and the Balancing Market. The allocation of Capacity Credits does not guarantee that a Facility will be dispatched in the energy market. A Facility that fails to meet its availability obligation (except for approved planned outages) will be required to pay Reserve Capacity refunds to the market in accordance with section 4.26 of the Market Rules.

Facilities holding Capacity Credits are also required to:

- submit to regular Facility tests undertaken by or on behalf of AEMO;
- participate in the centralised outage planning arrangements, where applicable; and
- respond to Dispatch Instructions from System Management.

CHAPTER 3. ELECTRICITY MARKET REVIEW AND POTENTIAL RULE CHANGES

On 6 March 2014, the Minister for Energy launched the WA Government's Electricity Market Review (EMR). The EMR examines the structures of the electricity generation, wholesale and retail sectors in the SWIS and the incentives for industry participants to make efficient investments and minimise costs. The EMR is being undertaken in two phases and has three objectives:

- reducing costs of production and supply of electricity and electricity related services, without compromising safe and reliable supply;
- reducing the WA Government's exposure to energy market risks, particularly focusing on encouraging future electricity generation built by the private sector without government investment, underwriting or other financial support; and
- attracting private-sector participants to the electricity market that are of a scale and capitalisation to facilitate long-term stability and investment.

As part of the EMR, the Independent Market Operator (IMO) received a direction from the Minister for Energy in March 2015 to defer certain aspects of the 2015 Reserve Capacity Cycle.

The deferral of the 2015 Reserve Capacity Cycle extended the dates and times for the IMO to accept applications for CRC for the 2015 Reserve Capacity Cycle. As a result, the 2015 and the 2016 Reserve Capacity Cycles will be run concurrently. Chapter 4 outlines the timetables for these two cycles, which are also published on the WA AEMO website[19].

AEMO strongly advises all prospective capacity providers (either existing or new) to consider proposed changes to the RCM outlined in the position paper[20] released by the PUO.

The proposed changes to the Market Rules, Market Procedures and relevant reviews are likely to impact on the 2015, 2016 and all future Reserve Capacity Cycles.

The proposed reforms are:

- adopting an auction to procure capacity, with the first auction to occur when excess capacity has fallen;
- transition arrangements for a period before the first auction including changing the formula for calculating the RCP and treating DSM separately from generators;
- harmonising DSM availability requirements with those for generators; and
- including stronger incentives for all capacity to be available for dispatch.

For more information on the proposed changes to the RCM, refer to the position paper on the Department of Finance website[21] or contact the PUO directly.

The IMO also completed a review of the Relevant Level Methodology in 2014, which is used to determine the quantity of CRC for a given Reserve Capacity Cycle for intermittent generators.

This review:

- examined the effectiveness of the methodology in meeting the Wholesale Market Objectives; and
- determined the values of the parameters K and U in step 17 of the methodology to be applied for the 2015, 2016 and 2017 Reserve Capacity Cycles.

The results of this review are available on AEMO's website[22].

[19] See http://wa.aemo.com.au/home/electricity/reserve-capacity/reserve-capacity-timetable-overview
[20] The position paper on the RCM is located at https://www.finance.wa.gov.au/cms/Public_Utilities_Office/Electricity_Market_Review/Wholesale_Electricity_Market_Improvements.aspx.
[21] Ibid.
[22] See http://wa.aemo.com.au/home/imo/consultations/2014-relevant-level-methodology-review.

CHAPTER 4. PROPONENT REQUIREMENTS

4.1 Submitting an Expression of Interest for the 2015 and 2016 Reserve Capacity Cycles

To submit an EOI for each respective Reserve Capacity Cycle, the proponent is required to develop an outline of a proposal for a specific generation Facility or a specific DSM Facility for the Capacity Year in which the Facility is expected to commence.

The proponent must then submit an EOI by 5:00 PM (Australian Western Standard Time) Friday 2 May 2016, as required by clause 4.1.5 of the Market Rules.

The EOI submission must include a completed EOI form for each Facility, available in Appendix B of this request, and relevant supporting documentation. A copy of this form is also provided in Microsoft Excel format on the WA AEMO website[23].

Proponents who wish to submit an EOI are advised to read the Important Notice in Appendix A of this Request.

EOI forms must be submitted:

(a) electronically to wa.capacity@aemo.com.au; or

(b) via mail to

Manager, System Capacity (WA)
Australian Energy Market Operator
PO Box 7096
Cloisters Square
PERTH WA 6850
AUSTRALIA

4.2 Certification of Reserve Capacity

Due to the deferral of the 2015 Reserve Capacity Cycle, the 2015 and 2016 Reserve Capacity Cycles are expected to run concurrently. The updated timeline for both Reserve Capacity Cycles can be found on the WA AEMO website[24] and in Table 4.1 and Table 4.2.

Applications for the 2015 and 2016 Reserve Capacity Cycles must be lodged with AEMO from Monday 2 May 2016 until Friday 1 July 2016 in accordance with clause 4.9.1 of the Market Rules. A Market Participant applying for CRC must provide the information specified in clause 4.10.1 of the Market Rules.

An application for an intermittent generator that is yet to enter service must also be accompanied by an independent expert report as described in clause 4.10.3 of the Market Rules[25].

[23] See http://wa.aemo.com.au/home/electricity/reserve-capacity/expressions-of-interest.
[24] See http://wa.aemo.com.au/home/electricity/reserve-capacity/reserve-capacity-timetable-overview.
[25] See http://wa.aemo.com.au/home/electricity/reserve-capacity/certification-of-reserve-capacity.

Table 4.1: 2015 Reserve Capacity Cycle Timetable for the WA WEM

Timetable for 2015 Reserve Capacity Cycle (all times outlined are Australian Western Standard Times)			
Friday	29 January 2016	5.00 PM	AEMO publishes Request for Expressions of Interest (EOI)
Monday	2 May 2016	9:00 AM	Participants may apply for Certification of Reserve Capacity
Monday	2 May 2016	5.00 PM	Close of EOI
Monday	16 May 2016	5.00 PM	Announcement of the results of the EOI
Friday	17 June 2016	5.00 PM	AEMO publishes the: • Electricity Statement of Opportunities for WA; and • Reserve Capacity Information Pack on the WA AEMO website
Friday	1 July 2016	5.00 PM	Applications for Certification of Reserve Capacity close
Friday	19 August 2016	5.00 PM	AEMO advises assignment of Certified Reserve Capacity
Friday	2 September 2016	5.00 PM	Market Participants: • provide Reserve Capacity Security for new capacity that they intend to bilaterally trade; and • advise how much of their Certified Reserve Capacity will be traded bilaterally and how much will be offered into the auction
Monday	5 September 2016	5.00 PM	AEMO confirms to Market Participants the amount of Certified Reserve Capacity that can be traded bilaterally
Tuesday	6 September 2016	5.00 PM	AEMO: • publishes the Certified Reserve Capacity for each Facility • advises whether the Reserve Capacity Auction is required or cancelled; and • assigns Capacity Credits (if Reserve Capacity Auction is cancelled)
Wednesday	7 September 2016	9.00 AM	Lodgement of Reserve Capacity Offers opens (if Reserve Capacity Auction is required)
Wednesday	14 September 2016	5.00 PM	• Lodgement of Reserve Capacity Offers closes (if Reserve Capacity Auction is required) • Market Participants provide Reserve Capacity Security for new capacity entered into the Reserve Capacity Auction
Thursday	15 September 2016	5.00 PM	AEMO runs the Reserve Capacity Auction and publishes the results (if Reserve Capacity Auction is required)
Wednesday	21 September 2016	5.00 PM	Market Participants advise AEMO how many Capacity Credits each Facility will provide and of any Long Term Special Price Arrangements to be accepted (if Reserve Capacity Auction is required)
Friday	23 September 2016	5.00 PM	• AEMO assigns Capacity Credits (if Reserve Capacity Auction is required) • Market Participants may apply to AEMO for a recalculation of the amount of Reserve Capacity Security required to be held for a Facility (applications may be received after this date/time)

Table 4.2: 2016 Reserve Capacity Cycle Timetable for the WA WEM

Timetable for 2016 Reserve Capacity Cycle (all times outlined are Australian Western Standard Times)			
Friday	29 January 2016	5.00 PM	AEMO publishes Request for Expressions of Interest (EOI)
Monday	2 May 2016	9:00 AM	Participants may apply for Certification of Reserve Capacity
Monday	2 May 2016	5.00 PM	Close of EOI
Monday	16 May 2016	5.00 PM	Announcement of the results of the EOI
Friday	17 June 2016	5.00 PM	AEMO publishes the: • Electricity Statement of Opportunities for WA; and • Reserve Capacity Information Pack on the WA AEMO website
Friday	1 July 2016	5.00 PM	Applications for Certification of Reserve Capacity close
Friday	19 August 2016	5.00 PM	AEMO advises assignment of Certified Reserve Capacity
Friday	2 September 2016	5.00 PM	Market Participants: • provide Reserve Capacity Security for new capacity that they intend to bilaterally trade; and • advise how much of their Certified Reserve Capacity will be traded bilaterally and how much will be offered into the auction
Monday	5 September 2016	5.00 PM	AEMO confirms to Market Participants the amount of Certified Reserve Capacity that can be traded bilaterally
Tuesday	6 September 2016	5.00 PM	AEMO: • publishes the Certified Reserve Capacity for each Facility • advises whether the Reserve Capacity Auction is required or cancelled; and • assigns Capacity Credits (if Reserve Capacity Auction is cancelled)
Wednesday	7 September 2016	9.00 AM	Lodgement of Reserve Capacity Offers opens (if Reserve Capacity Auction is required)
Wednesday	14 September 2016	5.00 PM	• Lodgement of Reserve Capacity Offers closes (if Reserve Capacity Auction is required) • Market Participants provide Reserve Capacity Security for new capacity entered into the Reserve Capacity Auction
Thursday	15 September 2016	5.00 PM	AEMO runs the Reserve Capacity Auction and publishes the results (if Reserve Capacity Auction is required)
Wednesday	21 September 2016	5.00 PM	Market Participants advise AEMO how many Capacity Credits each Facility will provide and of any Long Term Special Price Arrangements to be accepted (if Reserve Capacity Auction is required)
Friday	23 September 2016	5.00 PM	• AEMO assigns Capacity Credits (if Reserve Capacity Auction is required) • Market Participants may apply to AEMO for a recalculation of the amount of Reserve Capacity Security required to be held for a Facility (applications may be received after this date/time)

Note: AEMO may amend certain dates in the Reserve Capacity Timetable pursuant to clause 4.1.32 of the Market Rules. Refer to the WA AEMO website (http://wa.aemo.com.au/home/electricity/reserve-capacity/reserve-capacity-timetable-overview) for the most current timetable for the 2015 and the 2016 Reserve Capacity Cycle.

APPENDIX A. EXPRESSION OF INTEREST FORM

As part of your EOI submission, please provide additional accompanying documentation and relevant information that supports your project in addition to the completed EOI form to AEMO.

Proponent	
Name of proponent	
Contact person	
Contact person's position	
Address	
Phone	
Email	
Fax	
Registered in WEMS?	Yes/No

Facility	
Name of Facility	
Location	
Is the Facility:	(Please tick the appropriate option) ☐ An intermittent generator. ☐ A non-intermittent generator serving an intermittent load. ☐ A non-intermittent generator not serving an intermittent load. ☐ A form of Demand Side Management.
Primary fuel to be used in the Facility	
Quantity of primary fuel expected to be available to the Facility	
Back-up fuel to be used by the Facility (if any)	
Quantity of back-up fuel expected to be available to the Facility (if any)	
Hours during a typical week when the Facility will not be available to be dispatched	
Maximum capacity available (MW)	
For non-intermittent generators: capacity at 41°C (MW)	
For non-intermittent generators serving an intermittent load: maximum capacity required to serve intermittent load (MW)	
For intermittent generators, anticipated Capacity Credit assignment (MW)	
Expected earliest date that the Facility will be available to be fully operational	
Network Access Offer (please tick the appropriate option)	☐ Has been made by Western Power Networks. ☐ Has been applied for and is being processed. ☐ Has not been applied for.
Environmental Approvals (please tick the appropriate option)	☐ Have been granted. ☐ Have been applied for and are being processed. ☐ Have not been applied for.

APPENDIX B. RESULTS FROM PAST RESERVE CAPACITY CYCLES

The following information is presented in accordance with clause 4.3.1(c) of the Market Rules. Table C.1 shows Availability Curve information.

Table C.1: Availability Curve data for the relevant Capacity Years for the last three Reserve Capacity Cycles

Availability Curve Information	2014-15 (MW) **(2012 ESOO)**	2015-16 (MW) **(2013 ESOO)**	**2016-17(MW) (2014 ESOO)**
Market Rule 4.5.12(a):			
Capacity required for more than 24 Hours	4,605	4,453	4,276
Capacity required for more than 48 Hours	4,429	4,305	3,915
Capacity required for more than 72 Hours	4,314	4,198	3,821
Market Rule 4.5.12(b):			
Minimum Generation Required	4,438	4,394	3,852
Market Rule 4.5.12(c):			
Capacity associated with Availability Class 1	4,438	4,394	3,852
Capacity associated with Availability Class 2	0	0	63
Capacity associated with Availability Class 3	167	59	361
Capacity associated with Availability Class 4	703	666	281

The figures presented for each year are those for the relevant Reserve Capacity Cycle. The latest Availability Curve can be found in the 2014 ESOO Report.

MEASURES AND ABBREVIATIONS

Units of measure

Abbreviation	Unit of measure
MW	Megawatts

Abbreviations

Abbreviation	Expanded name
AEMO	Australian Energy Market Operator
CRC	Certified Reserve Capacity
DSM	Demand Side Management
EMR	Electricity Market Review
EOI	Expressions of Interest
EPA	Environmental Protection Authority
ESOO	Electricity Statement of Opportunities
IMO	Independent Market Operator
IRCR	Individual Reserve Capacity Requirement
MRCP	Maximum Reserve Capacity Price
PUO	Public Utilities Office
RCM	Reserve Capacity Mechanism
RCP	Reserve Capacity Price
RCR	Reserve Capacity Requirement
RCS	Reserve Capacity Security
SWIS	South West interconnected system
WA	Western Australia
WEM	Wholesale Electricity Market
WEMS	Wholesale Electricity Market System