

# Decision on the benchmark reserve capacity price to apply in the 2023/24 capacity year

January 2021

**Economic Regulation Authority**

WESTERN AUSTRALIA

D224601

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## 1. Decision

In accordance with clause 2.26 of the *Wholesale Electricity Market Rules (1 January 2021)*, the Economic Regulation Authority approves the revised value for the benchmark reserve capacity price for the 2023/24 capacity year of \$151,700 per megawatt per year, as proposed by the Australian Energy Market Operator.

The ERA is satisfied that:

- The revised value for the benchmark reserve capacity price proposed by the Australian Energy Market Operator (AEMO) reasonably reflects the application of the method and guiding principles described in clause 4.16 of the market rules.
- AEMO has carried out an adequate public consultation process.

In accordance with clause 4.16.8 of the market rules, the approved revised value for the benchmark reserve capacity price will apply with effect from the date and time specified in a notice to be published on AEMO's website.

## 2. Background

The South West Interconnected System (SWIS) is a small, geographically-isolated electricity system. To provide a reliable supply of electricity for consumers, the Wholesale Electricity Market must have adequate electricity generation available to continuously satisfy demand, including during supply emergencies.

Each year, AEMO procures enough generation capacity to deliver a reliable electricity supply by assigning capacity credits to generators and demand-side management providers. The benchmark reserve capacity price (BRCP) is calculated each year as an input to an administered mechanism used by AEMO to determine the price of capacity credits. The BRCP establishes the marginal cost of providing one additional megawatt (MW) of reserve capacity in the relevant capacity year.

The BRCP is calculated by undertaking a technical, bottom-up cost evaluation of the entry of a new 160 MW open cycle gas turbine generation facility in the SWIS in the relevant capacity year. The 2021 BRCP will apply in the 2023/24 capacity year.

### 2.1 Legislative requirements for the ERA's approval

The market rules stipulate that AEMO must follow the principles and steps outlined in the market rules and market procedure to propose and consult on a revised value for the BRCP:

- 4.16.3 The Economic Regulation Authority must develop a Market Procedure documenting: the methodology AEMO must use and the process AEMO must follow in determining the Benchmark Reserve Capacity Price, and
  - a) the AEMO and Rule Participants must follow that documented Market Procedure when conducting any review and consultations in accordance with that Market Procedure and clause 4.16.6; and
  - b) AEMO must follow that documented Market Procedure to annually review the value of the Benchmark Reserve Capacity Price in accordance with this section 4.16 and in accordance with the timing requirements specified in section 4.1.19.
- 4.16.5 AEMO must propose a revised value for the Benchmark Reserve Capacity Price using the methodology described in the Market Procedure referred to in clause 4.16.3.<sup>1</sup>
- 4.16.6. AEMO must prepare a draft report describing how it has arrived at a proposed revised value for the Benchmark Reserve Capacity Price under clause 4.16.5. AEMO must publish the report on the Market Web Site and advertise the report in newspapers widely distributed in Western Australia and request submissions from all sectors of the Western Australia energy industry, including end-users.<sup>2</sup>
- 4.16.7. After considering of the submissions on the draft report described in clause 4.16.6 AEMO must propose a final revised value for the Benchmark Reserve Capacity Price and publish that value and its final report, including submissions received on the draft report on the Market Web Site.<sup>3</sup>
- 4.1.19. AEMO must commence a review of the Benchmark Reserve Capacity Price as required by clause 4.16.3 with the objective of completing the review, including consideration of public submissions in relation to that review, so as to allow a reasonable time for the Economic Regulation Authority to approve any proposed change in value and for that

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<sup>1</sup> Wholesale Electricity Market Rules (WA), 1 January 2021, Clause 4.16.5.

<sup>2</sup> Ibid, Clause 4.16.6.

<sup>3</sup> Ibid, Clause 4.16.7.

value to be implemented prior to the date and time specified in clause 4.1.4 that relates to the following Reserve Capacity Cycle.<sup>4</sup>

The market rules outline the factors that the ERA must consider in reviewing a revised value for the BRCP:

- 2.26.1 Where AEMO has proposed a revised value for the Benchmark Reserve Capacity Price in accordance with section 4.16 or a change in the value of one or both of the Maximum STEM Price and the Alternative Maximum STEM Price in accordance with section 6.20, the Economic Regulation Authority must:
- c) review the report provided by AEMO, including all submissions received by AEMO in preparation of the report;
  - d) decide whether to approve the revised value for the Benchmark Reserve Capacity Price or any value comprising the Energy Price Limits;
  - e) in making its decision, only consider:
    - i. whether the proposed revised value for the Benchmark Reserve Capacity Price or Energy Price Limit proposed by AEMO reasonably reflects the application of the method and guiding principles described in clauses 4.16 or 6.20 (as applicable);
    - ii. whether AEMO has carried out an adequate public consultation process; and
  - f) notify AEMO whether it has approved the revised or recommended value.<sup>5</sup>

The approved BRCP value will take effect on a date specified by AEMO:

- 4.16.8 A proposed revised value for the Benchmark Reserve Capacity Price becomes the Benchmark Reserve Capacity Price after AEMO has posted a notice on the Market Web Site of the new value of the Benchmark Reserve Capacity Price with effect from the date and time specified in AEMO's notice.<sup>6</sup>

AEMO must publish the approved BRCP value on the market website by 31 January 2021:

- 4.16.1. For all Reserve Capacity Cycles, AEMO must publish a Benchmark Reserve Capacity Price as determined in accordance with this section 4.16 prior to the time specified in section 4.1.4.<sup>7</sup>
- 4.1.4. AEMO must advertise a Request for Expressions of Interest in accordance with clause 4.2.4 by 5:00 PM on or before:
- a) 15 October 2004, in the case of the first Reserve Capacity Cycle; and
  - b) 31 January of Year 1, in the case of subsequent Reserve Capacity Cycles.<sup>8</sup>

All annual values in this paper represent capacity years unless noted otherwise.<sup>9</sup>

<sup>4</sup> Ibid, Claus 4.1.19.

<sup>5</sup> Ibid, Clause 2.26.1.

<sup>6</sup> Ibid, Clause 4.16.8.

<sup>7</sup> Ibid, Clause 4.16.1.

<sup>8</sup> Ibid, Clause 4.1.4.

<sup>9</sup> A capacity year is a 12-month period commencing at the start of the Trading Interval on 1 October each year. The 2023/24 capacity year will commence on 1 October 2023.

## 2.2 Summary of the market procedure

The market procedure for the BRCP describes the method that AEMO must follow to determine the BRCP in each reserve capacity cycle.<sup>10</sup> The BRCP comprises the following elements:

- 2.2.1 The Benchmark Reserve Capacity Price must include all reasonable costs expected to be incurred in the development of the Power Station, which must include estimation and determination of:
- a) Power Station balance of plant costs, which are those other ancillary and infrastructure costs that would normally be experienced when developing a project of this nature;
  - b) land costs;
  - c) costs associated with the development of liquid fuel storage and handling facilities;
  - d) costs associated with the connection of the Power Station to the bulk transmission system;
  - e) allowances for legal costs, insurance costs, financing costs and environmental approval costs;
  - f) reasonable allowance for a contingency margin; and
  - g) estimates of fixed operating and maintenance costs for the Power Station, fuel handling facilities and the transmission connection components.<sup>11</sup>

Using these parameters, the market procedure provides methods for estimating annualised fixed operating costs, maintenance costs and annualised capital costs, which are used to calculate the BRCP.

The 2021 BRCP calculation is based on the cost of a theoretical power station that would commence operation on 1 October 2023. Costs have been determined as at 2020 and have been escalated to 2023 to recognise that the plant must be built, tested and commissioned before it can operate. Fixed operation and maintenance costs are also escalated to 1 October 2023.

### 2.2.1 Amendments to the market procedure

The market rules require the ERA to conduct a review of the BRCP market procedure every five years.

- 4.16.9 At least once in every five year period, the Economic Regulation Authority must review the Market Procedure referred to in clause 4.16.3 and must undertake a public consultation process in respect of the outcome of the review.<sup>12</sup>

The Market Advisory Committee convened a working group to assist the review of the BRCP market procedure. After consulting with this working group, the ERA limited the scope of the review to the calculation of the weighted average cost of capital (WACC) used in the market procedure. Limiting the scope allowed the ERA to fast-track the amendment process and publish the revised market procedure in time for AEMO to apply it to the calculation of the BRCP for the 2023/24 reserve capacity cycle.

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<sup>10</sup> ERA, 2020, *Market Procedure: Benchmark Reserve Capacity Price*, Version 7, ([online](#)).

<sup>11</sup> Ibid, Clause 2.2.1.

<sup>12</sup> Wholesale Electricity Market Rules (WA), 1 January 2021, Clause 4.16.9.

On 15 September 2020, the ERA published the procedure change proposal and invited comments on the proposed amendments by 14 October 2020.<sup>13</sup> The ERA received one submission, from Merredin Energy. On 6 November 2020, the ERA published the procedure change report outlining the reasons for the amendments to the market procedure, a summary of stakeholder feedback and the ERA's response to that feedback.<sup>14</sup>

Prior to the ERA's review, the market procedure detailed how to calculate both a nominal and real WACC. However, the procedure did not clarify whether a nominal or real WACC should be applied in the annuity process to calculate the annualised capital cost input of the BRCP. AEMO has historically applied a real WACC to the BRCP calculation. However, the use of a real WACC does not match the efficient financing costs that a benchmark new generator would incur when financing a new plant.

The ERA recommended the use of a nominal WACC as it would ensure that the annualised capital cost includes compensation for inflation to provide efficient price signals to the market. There would also be no need to forecast inflation as market expectations are already built into a nominal WACC. The inflation forecast that was estimated as part of the calculations for a real WACC delivered a relatively static inflation forecast of around 2.3 per cent which is inconsistent with market expectations built into other WACC parameters.<sup>15</sup> This approach was endorsed by the Market Advisory Committee.

The ERA completed the review and published the updated market procedure (version 7) with effect from 9 November 2020. The changes to the market procedure include:

- A nominal WACC is used instead of a real WACC to calculate the annualised capital cost of a power station in the calculation of the BRCP.
- The requirement to forecast inflation has been removed as a real WACC calculation is no longer used.
- The market risk premium has been reduced to 5.9 per cent following an improvement in the calculation.
- The debt issuance cost has been reduced to 0.100 per cent to mitigate a double counting error.
- The franking credit value (gamma) has been reduced to 0.50 following new reports and analysis which identified improved methods to calculate gamma.
- References to the Independent Market Operator (IMO) and maximum reserve capacity price (MRCP) have been updated to Australian Energy Market Operator (AEMO) and benchmark reserve capacity price (BRCP) respectively, in line with current terminology used in the market rules.

AEMO adopted the amended market procedure in its final report of the 2021 BRCP.

<sup>13</sup> ERA, 2020, *Procedure change proposal: Calculation of benchmark reserve capacity price (EEPC\_2020\_02)*, ([online](#)).

<sup>14</sup> ERA, 2020, *Procedure change report: Calculation of benchmark reserve capacity price (EEPC\_2020\_02)*, ([online](#)).

<sup>15</sup> Prior to the amendment, the market procedure's approach to forecasting inflation used: 1) the Reserve Bank of Australia's annual estimates of inflation over the next two years; and 2) the mid-point of the Reserve Bank of Australia's 2 per cent to 3 per cent inflation target range (2.5 per cent) for the remaining eight years of the forecast period. The large weight placed on the mid-point of the inflation target leads to a relatively static forecast of inflation of around 2.3 per cent. This 2.3 per cent inflation forecast is relatively high compared to inflation expectations of around 1 per cent that were built into market bond yields and the Reserve Bank of Australia's expectation that inflation will average between 1 and 1.5 per cent over the next few years. See RBA, *Statement by Philip Lowe, Governor: Monetary Policy Decision*, 4 August 2020 ([online](#)).



### 3. The ERA's assessment

The ERA considers that the BRCP value proposed by AEMO for the 2023/24 capacity year reasonably reflects the application of the method and guiding principles described in clause 4.16 as required by clause 2.26.1(e)(i) of the market rules.

Consistent with the approach in previous years, AEMO undertook a review of the 2021 BRCP and released a draft report for public consultation on 26 October 2020. AEMO received submissions from Synergy and Alinta Energy. Stakeholder feedback is presented in section 3.5.

On 18 December 2020, AEMO provided its final report to the ERA. AEMO proposed a BRCP of \$151,700 per MW per year for 2023/24, which was 6.9 per cent (\$9,800 per MW per year) higher than the 2020 BRCP that applies in 2022/23.<sup>16</sup>

Table 1 provides a summary of the calculated values of input parameters used to estimate the BRCP and compares calculated values for capacity years 2022/23 and 2023/24 as shown in AEMO's final report.

The ERA has reviewed AEMO's draft and final reports, its BRCP calculation spreadsheets, and public submissions received in response to the draft report. The ERA also reviewed reports from consultants GHD, Landgate, Western Power and PwC that AEMO commissioned for the review.<sup>17</sup>

AEMO's approach to calculating all inputs of the proposed 2021 BRCP, except the WACC, was consistent with the method approved in previous years. The change in the approach to calculating the WACC is due to amendments to the market procedure and is further discussed in section 3.1 of this paper.

While AEMO's approach to calculating the parameters is largely unchanged, certain calculated values differ from the previous year because of market conditions resulting from the COVID-19 pandemic. The inputs that have significantly changed in value compared to the previous year include:

- A 20 per cent increase in asset insurance cost input, caused by a significant increase in insurance premiums due to the COVID-19 pandemic and 2020 Australian bushfires. This is discussed in section 3.2.
- A 9 per cent decrease in power station capital cost escalation factors, caused by subdued steel and copper prices due to the COVID-19 pandemic. This is discussed in section 3.3.
- A 4 per cent decrease in the fixed fuel cost input, caused by a significant decline in delivered diesel price due to the COVID-19 pandemic. This is discussed in section 3.4.

<sup>16</sup> AEMO, 2020, *Final Report – 2021 Benchmark Reserve Capacity Price for the 2023-24 Capacity Year*, ([online](#)).

<sup>17</sup> All consultant reports are available on AEMO's website, ([online](#)).

**Table 1: Main components of the BRCP proposed for 2023/24 compared to those approved for 2022/23**

| Parameter   | Unit       | Approved value for 2022/23 | Proposed value for 2023/24 | Variance  | AEMO's reason for change   |
|---|------------|----------------------------|----------------------------|-----------|--|
| Capacity credit allocation ( <i>CC</i> )  | MW         | 152.28                     | 152.28                     | -         | This parameter is unchanged from the previous year as no further changes to the modelling inputs of the reference generator have been implemented.   |
| Weighted average cost of capital ( <i>WACC</i> )                                    | %          | 3.51                       | 5.20                       | 1.69      | This parameter increased due to a change in the method to calculate the WACC following the ERA's review of the BRCP market procedure. The change in the WACC parameter resulted in the BRCP increasing by \$14,200/MW/year compared to the previous year.                        |
| Power station capital cost ( <i>PC</i> )  | \$/MW      | 859,629                    | 816,437                    | (43,192)  | This parameter decreased due to a decline in steel and copper prices as a result of global reduction in economic activity due to COVID-19 pandemic. This decline was compounded by a weaker AUD/USD exchange rate.   |
| Factor for legal, financing, approvals, contingencies, and other costs ( <i>M</i> ) | %          | 17.16                      | 16.69                      | (0.47)    | This parameter is a fixed percentage of the capital cost of developing the power station ( <i>PC</i> ). As the <i>PC</i> parameter has declined since the previous year, the <i>M</i> parameter also declined. The reduction in this parameter lowered the BRCP by \$400/MW/year |
| Transmission connection cost ( <i>TC</i> )  | \$/MW      | 181,760                    | 180,927                    | (833)     | There was a decrease in transmission and line easement costs as a result of decline in land costs.   |
| Fixed fuel cost ( <i>FFC</i> )  | \$         | 7,213,564                  | 6,915,717                  | (297,847) | This parameter decreased due to a significant decline in the price of delivered diesel and the application of lower escalation factors.  |
| Land cost ( <i>LC</i> )   | \$         | 2,536,250                  | 2,404,251                  | (131,999) | This parameter declined due to the application of lower escalation factors.  |
| Generation O&M cost   | \$/MW/Year | 14,600                     | 13,931                     | (669)     | This parameter declined due to a decrease in labour cost (wages) and power station capital cost ( <i>PC</i> ).   |

| Parameter   | Unit              | Approved value for 2022/23 | Proposed value for 2023/24 | Variance     | AEMO's reason for change  |
|---|-------------------|----------------------------|----------------------------|--------------|---|
| Switchyard O&M cost   | \$/MW/Year        | 544                        | 544                        | -            | This parameter is unchanged from the previous year.   |
| Transmission line O&M cost  | \$/MW/Year        | 34                         | 34                         | -            | This parameter is unchanged from the previous year.   |
| Asset insurance cost  | \$/MW/Year        | 5,393                      | 6,477                      | 1,084        | This parameter increased due to a significant rise in insurance premiums caused by the combined effects of an increase in commercial liability claims, persistently low insurance income yields, and several large underwriting losses from events such as the COVID-19 pandemic and 2020 Australian bushfires. |
| Fixed network access and ongoing charges cost   | \$/MW/Year        | 10,596                     | 11,041                     | 445          | This parameter increased due to a rise in control system and transmission use of system charges, which are based on the cost to Western Power of a generating asset's use of the SWIS and are dependent on factors such as location and complexity of the grid connection.                                      |
| Total capital cost ( <i>CAPCOST</i> ) <sup>18</sup>   | \$                | 194,116,340                | 186,622,114                | (7,494,226)  | <i>CAPCOST</i> declined due to the combined effect of change in its underlying parameters.  |
| Annualised capital cost ( <i>ANNUALISED_CAPCOST</i> ) <sup>19</sup>                                 | \$/Year           | 16,860,715                 | 18,222,883                 | 1,362,168    | <i>ANNUALISED_CAPCOST</i> increased due to the combined effect of change in its underlying parameters.  |
| Annualised fixed operational and maintenance cost ( <i>ANNUALISED_FIXED_O&amp;M</i> ) <sup>20</sup> | \$/MW/Year        | 31,168                     | 32,028                     | 860          | <i>ANNUALISED_FIXED_O&amp;M</i> increased due to the combined effect of change in its underlying parameters.  |
| <b>Benchmark reserve capacity price (<i>BRCP</i>)<sup>21</sup></b>                                  | <b>\$/MW/Year</b> | <b>141,900</b>             | <b>151,700</b>             | <b>9,800</b> | <b>The <i>BRCP</i> increased due to the combined effect of the change in its underlying parameters.</b>   |

<sup>18</sup>  $CAPCOST = \{[PC \times (1 + M) + TC] \times CC + FFC + LC\} \times \sqrt{1 + WACC}$ .

<sup>19</sup> *ANNUALISED\_CAPCOST* is calculated by annualising *CAPCOST* over a 15-year period using the *WACC*.

<sup>20</sup>  $ANNUALISED\_FIXED\_O\&M = generation\ O\&M\ costs + switchyard\ O\&M\ costs + transmission\ line\ O\&M\ costs + asset\ insurance\ costs + fixed\ network\ access\ cost.$

<sup>21</sup>  $BRCP = ANNUALISED\_FIXED\_O\&M + \frac{ANNUALISED\_CAP\_COST}{CC}$ .

### 3.1 Estimate of the weighted average cost of capital

The weighted average cost of capital (WACC) is a calculation of a company's cost of capital in which each category of capital, debt and equity is proportionately weighted. Step 2.9 of the market procedure requires AEMO to determine the WACC for the BRCP calculation.

The WACC is determined using an estimate of the costs of equity and debt. The debt risk premium was estimated by AEMO's consultant PwC, and the risk free rate was calculated using information available from the Reserve Bank of Australia. This approach is consistent with AEMO's approach to estimating the WACC parameters in previous years. This included updating the risk free rate and debt risk premium for the averaging period of the 20 trading days to 30 October 2020.

The recent review of the market procedure resulted in the adoption of a WACC based on nominal, rather than real, terms. The change to a nominal WACC removes the need to forecast inflation and, therefore, removes the effect of over or under estimation of inflation on the BRCP. As a result, the WACC increased from a real value of 3.51 per cent in the 2020 BRCP to a nominal value of 5.20 per cent in the 2021 BRCP. AEMO estimated that the change in the WACC resulted in the BRCP value increasing by \$14,200 per MW per year (10 per cent) since the previous year.

The ERA considers that AEMO has estimated the WACC in accordance with the market procedure.

### 3.2 Asset insurance cost

Asset insurance cost is a component of the fixed operation and maintenance cost input and includes an estimate of annual insurance costs to cover power station asset replacement, business interruption, and public and products liability insurance.<sup>22</sup> Consistent with the approach in previous years, AEMO sourced a quote from its vetted independent insurance broker experienced in power generation insurance.

AEMO calculated the asset insurance premium as 0.37 per cent of the limit of liability, which was 22 per cent higher than the premium calculated for the 2020 BRCP. AEMO evaluated public and products liability insurance would increase by 10 per cent to \$133,089 per year and business interruption insurance would increase by 37 per cent to \$192,330 per year respectively compared to the 2020 BRCP.<sup>23</sup>

The asset insurance cost input of the 2021 BRCP increased by 20 per cent, relative to the 2020 BRCP. AEMO determined this was consistent with global insurance trends in 2020 as overall insurance pricing in the second quarter of 2020 in the Pacific region increased by 31 per cent. AEMO noted that insurance underwriters had significantly increased insurance premiums following a rise in commercial liability claims and several large underwriting losses from events such as the COVID-19 pandemic and 2020 Australian bushfires.

The ERA does not have access to the consultant report commissioned by AEMO for the calculation of asset insurance costs. In the absence of directly reviewing the consultant's

<sup>22</sup> ERA, 2020, *Market Procedure: Benchmark Reserve Capacity Price*, version 7, step 2.5.3, ([online](#)).

<sup>23</sup> Business interruption insurance includes coverage for the reference facility's potential refund liability and to commence additional construction work in the event of any interruptions. Public and products liability insurance includes coverage third party injury or property damage.

analysis, the ERA has relied on AEMO's report and observed global trends to consider that AEMO has estimated asset insurance cost in accordance with the market procedure.

### 3.3 Power station capital cost

The power station capital cost input measures the costs of designing, procuring and constructing an open cycle gas turbine power station in the 2023/24 capacity year.<sup>24</sup> The market procedure requires that the power station capital cost be determined with specific reference to actual project-related data and must take into account the specific conditions under which the reference generator will be developed.

Consistent with the approach last year, AEMO's consultant GHD used the Siemens SGT5-2000E (33MAC) open cycle gas turbine to determine the power station capital cost input of the 2021 BRCP. GHD referenced the modelling against similar completed projects in Australia, such as Braemar and Mortlake power stations. The capital cost was escalated to 1 April 2023 using the power station capital cost escalation factor.

The power station capital cost input declined by 5 per cent since the 2020 BRCP to \$816,437 per MW. This is largely due to a decline in steel and copper prices as a result of global contraction in economic activity and lower demand for commodities caused by the COVID-19 pandemic. This decline was compounded by a weaker AUD/USD exchange rate.<sup>25</sup>

Stakeholders raised concerns regarding the suitability of the escalation factors used to escalate the power station capital cost. Synergy suggested that it would be more appropriate to use historical escalation factors rather than forecasting escalation factors in the currently subdued market conditions resulting from the COVID-19 pandemic. Alinta Energy queried whether the decrease in escalation factors resulting from the COVID-19 pandemic would decrease the cost of constructing an open cycle gas turbine to the extent forecast by AEMO. This is further discussed in section 3.5.

### 3.4 Fixed fuel cost

The fixed fuel cost input measures the costs of developing and constructing onsite liquid fuel storage and supply facilities and supporting infrastructure, including the initial cost of filling an onsite tank with sufficient diesel for 14 hours of continuous operation.<sup>26</sup> AEMO calculated the fixed fuel cost as at 30 June 2020 and escalated it to 1 April 2023 using the Consumer Price Index (CPI) escalation factor.

AEMO calculated the fixed fuel cost input in the 2021 BRCP as \$6,915,717, which is 4.1 per cent lower than the value calculated in the 2020 BRCP. AEMO attributed this decline to a 43 per cent decline in the delivered diesel price and a lower CPI escalation factor.

Global oil prices have fallen significantly, resulting in the fixed fuel cost input in the calculation of the BRCP decreasing compared to last year.

The ERA considers that AEMO has estimated the fixed fuel cost in accordance with the market procedure.

<sup>24</sup> ERA, 2020, *Market Procedure: Benchmark Reserve Capacity Price*, version 7, step 2.3.1, ([online](#)).

<sup>25</sup> The modelling assumed an exchange rate of AU\$1.00 = US\$0.6863 which is consistent with the Australian Taxation Office's exchange rate for the financial year ending 30 June 2020.

<sup>26</sup> ERA, 2020, *Market Procedure: Benchmark Reserve Capacity Price*, version 7, step 2.6, ([online](#)).

### 3.5 Public consultation process

The ERA considers that AEMO has carried out an adequate consultation process in accordance with clause 2.26.1(e)(ii) of the market rules.

On 26 October 2020, AEMO published a draft report on the 2021 BRCP and invited feedback by 9 November 2020.<sup>27</sup> AEMO received two submissions, from Synergy and Alinta Energy.<sup>28</sup> AEMO submitted its final report to the ERA on 18 December 2020.

Synergy considered that the proposed BRCP in AEMO's draft report was not an adequate reflection of the marginal cost of adding one additional MW of reserve capacity for the 2023/24 capacity year. Synergy raised concerns regarding the suitability of the calculated escalation factors and queried whether it was appropriate to forecast escalation factors in the currently subdued market conditions resulting from the COVID-19 pandemic. Synergy considered that using historical escalation factors would be more appropriate. Synergy maintained that the scarcity of supply of construction materials and labour would partially offset the subdued copper and steel price forecasts.

Alinta queried whether recent sharp decreases in spot steel and copper prices, driven by the subduing effect of the COVID-19 pandemic on demand, would decrease the cost of constructing an open cycle gas turbine to the extent outlined by the draft report. Alinta noted that there have been minor reductions in capital equipment costs due to the COVID-19 pandemic, but these reductions have been largely offset by increasing foreign exchange and installation costs. This has resulted in similar capital expenditure costs compared to historic levels.

AEMO acknowledged these concerns but noted that it was obliged to follow the method for calculating the BRCP as prescribed in the market procedure. AEMO considered the escalation factors to accurately reflect the economic and financial environment at the time of the report, with all indicators trending downwards as a result of the COVID-19 pandemic.

To fulfill its obligations under the market rules, the ERA must consider whether the revised BRCP proposed by AEMO reasonably reflects the application of the method and guiding principles described in clause 4.16 of the market rules. AEMO determines the values for the inputs in the formula to derive the BRCP, and the ERA must review whether the individual input values have been determined appropriately. The ERA considers that AEMO has estimated the capital cost escalation factors in a manner that is consistent with the market procedure.

AEMO noted that errors in estimating the theoretical power station costs are more likely with the absence of recent projects that reflect the underlying technology described in the market procedure. AEMO considered that a review of the underlying generation technology is required to alleviate the reliance on cost escalation factors as the most recent types of generators installed in the SWIS could be evaluated. However, a review of the underlying technology would still require a forward escalation of the capital cost. This may result in increased variability of the forward escalation of the capital cost as newer and more varied generation technology is evaluated.

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<sup>27</sup> AEMO, 2020, *Draft Report: 2021 Benchmark Reserve Capacity Price for the 2023-24 Capacity Year*, ([online](#)).

<sup>28</sup> All market participants submissions are available on AEMO's website, ([online](#)).

Due to overlaps with market reforms underway by Energy Policy WA, the ERA has postponed its review of the method to determine the BRCP until after 1 October 2022.<sup>29</sup> The timing of the ERA's review is currently under consideration as part of the ongoing market reforms. The ERA may review the underlying generation technology as part of the review.

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<sup>29</sup> Clause 2.26.3 of the market rules requires the ERA to periodically conduct a review of the methods for setting the annual benchmark reserve capacity price. The ERA published a notice on 18 May 2020 suspending the review of the method to determine the BRCP, ([online](#)).