Economic Regulation Authority

2026 Benchmark Reserve Capacity Prices for the 2028/29 capacity year

Draft determination

02 February 2026

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Invitation to make submissions

Submissions are due by 4:00pm WST, Friday, 13 February 2026

The ERA invites comment on this paper and encourages all interested parties to provide comment on the matters discussed in this paper and any other issues or concerns not already raised in this paper.

We would prefer to receive your comments via our online submission form https://www.erawa.com.au/consultation.

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All submissions will be made available on our website unless arrangements are made in advance between the author and the ERA. This is because it is preferable that all submissions be publicly available to facilitate an informed and transparent consultative process. Parties wishing to submit confidential information are requested to contact us at info@erawa.com.au.

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Executive summary

To meet consumer demand for electricity, adequate capacity must be installed and be available within the electricity system. The Reserve Capacity Mechanism ensures that there is sufficient capacity installed within the South-West Interconnected System (SWIS). The Benchmark Reserve Capacity Prices (BRCPs) are a component of the Reserve Capacity Mechanism that provide pricing signals to encourage capacity to be installed in the SWIS. The Economic Regulation Authority annually determines the BRCPs.[1]

The ERA's draft 2026 BRCPs determination is $491,700 per Megawatt (MW) per year for both the Peak and Flexible BRCPs.[2] The BRCPs will be used by the Australian Energy Market Operator (AEMO) to calculate both the Peak Reserve Capacity Price and the Flexible Reserve Capacity Price for the 2028/29 capacity year, which will be the price paid to capacity providers holding Peak or Flexible Capacity Credits, respectively.[3,4]

The Reserve Capacity Price, which references the BRCP, must provide adequate price signals and deliver sufficient revenue to encourage capacity investments to ensure system reliability for electricity consumers. Consumers ultimately fund the Reserve Capacity Mechanism through their electricity bills.

The scope of the ERA's determination is defined by the Electricity System and Market (ESM) Rules, the BRCPs Wholesale Electricity Market (WEM) Procedure and is consistent with the Coordinator of Energy's recent changes to the Benchmark Technology used to calculate the BRCP.

The BRCPs have increased over recent years. This draft determination sets out those particular cost components that have increased since last year's determination, and what factors have contributed to those increases. While the Benchmark Technology's capacity has remained the same, as a 200 MW lithium-ion battery, the storage size has increased by 50 per cent (800 MWh to 1,200 MWh), with clear impacts on this determination.

The ERA's BRCP determination follows the BRCP WEM Procedure that is based on the Coordinator of Energy's determination of the Benchmark Technology and the ESM Rules. This draft determination is supported by data and analysis from consultant GHD Advisory, Western Power and Landgate which is published alongside this determination.[5]

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1 The reserve capacity timeline is defined in the Electricity System and Market Rules (WA), 1 January 2026, Rule 4.1, (online).

2 The Peak Reserve Capacity Price is paid to capacity providers for each MW of capacity that they make available to the Wholesale Electricity Market. All capacity credit holders receive capacity payments. Although generators are the largest capacity credit holders, storage systems and demand side programmes can be assigned capacity credits. Generators that do not participate in the Reserve Capacity Mechanism (or are ineligible) do not receive capacity payments.

The relatively new Flexible Reserve Capacity Price is the price paid to those capacity providers with available capacity that is able to respond to large and sudden changes in demand. Flexible Reserve Capacity was introduced to ensure that there is enough flexible capacity installed in the South West Interconnected System (SWIS) to meet its ramping requirements.

3 A capacity year starts at 8 am on 1 October of the relevant year and ends at 8 am on 1 October in the subsequent year.

4 The Peak Reserve Capacity Price paid will not apply to those facilities that are subject to the Transitional Arrangements or qualified as fixed price facilities – Australian Energy Market Operator, 'Reserve Capacity Price', (online) [accessed 14 January 2026].

5 Economic Regulation Authority, 'Benchmark Reserve Capacity Prices', (online).

Draft determination

The BRCP determination is a cost estimate of building and connecting a hypothetical 200 MW / 1,200 MWh Battery Energy Storage System (BESS) to the SWIS and its fixed operational and maintenance costs over a 15-year life.[6] Since both the Peak BRCP and Flexible BRCP are based on the same technological specifications, the BRCPs are the same.[7]

The ERA's draft BRCP determination of $491,700 per MW per year is 36 per cent higher than the 2025 BRCP of $360,700 per MW per year.[8] Once finalised, the ERA's BRCP determination will apply to the 2028/29 capacity year.

The increase in the BRCP is due to:

- The larger battery storage size – rising from 800 MWh to 1,200 MWh (a 50 per cent increase in storage).
- Rising input costs from freight, materials, and labour costs.
- An increase in transmission connection costs associated with the Fixed Capital Charge (FCC).[9]

Table 1 shows the key BRCP cost components and their percentage contribution to the overall BRCP.

Table 1: Key cost components of the BRCP and their contribution to the BRCP for the 2028/29 capacity year

Component	Amount ($)	Contribution to the BRCP (%)
Capital cost sub-total	**623,783,677**	**86**
Lithium-ion battery modules	246,671,109	34
Power conversion system	51,241,685	7
Balance of plant	49,797,350	7
Total construction costs	140,248,550	19
Transmission connection capital costs, includes Fixed Capital Charge	53,975,600	7
All other costs[10]	81,849,384	11

6 WEM Procedure: Benchmark Reserve Capacity Prices, 19 January 2026, (online).

7 Energy Policy WA, 2023, Coordinator of Energy Determination: Benchmark Capacity Providers – Peak Capacity Provider and Flexible Capacity Provider, p. 7, (online).

8 Economic Regulation Authority, 2025, Benchmark Reserve Capacity Price for the 2027/28 capacity year – Final determination, p. 5, (online).

9 Department of Energy and Economic Diversification, 2025, Consultation Paper: Fixed Capital Charge, (online)

10 All other costs refer to land costs, the Weighted Average Cost of Capital and indirect costs. These costs are detailed in Chapter 4 of this draft determination.

Component	Amount ($)	Contribution to the BRCP (%)
Fixed O&M sub-total[11] ($/year)	**14,110,037**	**14**
Capacity credits	**200 MW**	**N/A**

Source: ERA analysis of BRCP data.

The ERA seeks feedback from stakeholders on this draft determination, and will use this information to inform our final determination.

[11] Fixed O&M costs includes O&M costs for the Battery Energy Storage System, transmission, transmission network service charges, corporate overheads, site security and local government rates. Fixed O&M costs are discussed in detail in Chapter 5 of this draft determination.

1. Introduction

To ensure a reliable supply of electricity for consumers, there needs to be adequate generation available within the SWIS, and financial security for those providing that capacity. The Reserve Capacity Mechanism (RCM) allows generators to recoup their fixed costs for investing in a facility, and subsequently provides investment signals to install capacity in the SWIS when there is a forecast capacity deficit and to retire capacity when there is a significant capacity surplus.

Providers of capacity into the WEM that participate in the RCM are paid to make their capacity available. Capacity providers are allocated capacity credits which entitles the holder of those credits; for example, generators, storage, demand side programs; to payment for making their capacity available. The price of these capacity credits comes from the Reserve Capacity Price. The BRCP is an input into the Reserve Capacity Price. The BRCP is the forecast annualised cost estimate to build a new 200 MW / 1,200 MWh lithium-ion BESS that will provide capacity to the WEM over a capacity year.

The 2026 BRCP cost estimate is based on a build-up of cost components for a BESS and annualised over the expected economic life of 15 years.[12] These costs are then escalated to 2028, which is when the BESS is expected to become operational. with a start date of 1 October 2028, consistent with the start of the capacity year.[13,14] These cost estimate components are detailed in chapters 4, 5 and 6 of this draft determination. In summary:

- The RCM's Reserve Capacity Price is based on a cost estimate of constructing and installing a Benchmark Technology as determined annually by the Coordinator of Energy at specified locations (also determined by the Coordinator).[15]
- In September and October 2025, the Coordinator determined the Benchmark Technology to be a 200 MW / 1,200 MWh Battery Energy Storage System (BESS) connected via a 330 kV connection point installed on the Clean Energy Link – North.[16]
- The cost estimate of the BRCP is based on the BRCPs WEM Procedure, which the ERA updated to reflect the Coordinator's determination.
- The ERA has followed that WEM Procedure to determine these draft BRCPs for the 2028/29 capacity year.[17]
- The ERA is required to determine both Peak and Flexible BRCPs however, since both are based on the same Benchmark Technology, the BRCPs will be the same.[18]

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12 The BESS specifications are detailed in section 2.1 of the *WEM Procedure: Benchmark Reserve Capacity Prices*, 19 January 2026, p.3, (online).

13 A capacity year commences on 1 October each year – Electricity System and Market Rules (WA), 1 January 2026, Chapter 11, (online).

14 Details of the power station requirements are defined in clause 3.4.6 of the *WEM Procedure: Benchmark Reserve Capacity Prices*, 19 January 2026, (online).

15 Energy Policy WA, 2023, *Coordinator of Energy Determination: Benchmark Capacity Providers – Peak Capacity Provider and Flexible Capacity Provider*, p. 5, (online).

16 Energy Policy WA, 2025 Review of Benchmark Capacity Providers: Coordinator of Energy Determination, 30 September 2025, p. 1, (online).

Energy Policy WA, 2025 Review of Benchmark Capacity Providers: Coordinator of Energy Determination – Addendum, 9 October 2025, p. 1, (online).

17 Economic Regulation Authority, 'WEM Procedures' (online).

18 The Coordinator of Energy's determination is that both the Peak Benchmark Capacity Provider and the Flexible Benchmark Capacity Provider reference technology is to be the same – Energy Policy WA, *2025*

1.1 Changes from the 2025 BRCP determination

The main differences between the previous 2025 BRCP determination (for 2027/28) and the current draft determination are:

- A change in the reference technology from a 200 MW / 800 MWh (4-hour storage) BESS to a 200 MW / 1,200 MWh (6-hour storage) BESS.
- A change of location from the Pinjar or Kwinana regions to locations along the Clean Energy Link – North, which will link Western Power's terminals in Malaga and Pinjar (see section 4.3).
- An additional Fixed Capacity Charge of $100,000 per MW to account for shared transmission capital costs (see section 4.4.2).
- Removing the contingency amount (see section 4.5.2).

Other critical costing parameters, including transmission costs and the weighted average cost of capital, have not changed materially from how they were calculated and determined in previous BRCP determinations, other than being adjusted for the larger storage size and the location.

1.2 References throughout this draft determination

Throughout this determination:

- References to the WEM Procedure refers to the BRCPs WEM Procedure, unless otherwise specified.[19]
- Cost and price estimates are in Australian dollars and exclude the Goods and Services Tax, unless otherwise specified.
- All references to the draft 2026 BRCP refer to the ERA's draft BRCP determination of $491,700 per MW per year for the 2028/29 capacity year, unless otherwise specified.

Review of Benchmark Capacity Providers: Coordinator of Energy Determination, p. 1, (online). This means that both Flexible and Peak BRCPs will be the same. However, the Flexible Reserve Capacity Price and Peak Reserve Capacity Price will be determined by AEMO.

[19] Economic Regulation Authority, 'WEM Procedures' (online).

2. Scope of this draft determination

The scope of the ERA's BRCP determination is detailed in the BRCPs WEM Procedure which sets out how the BRCP is determined and how the ERA must calculate the different components. The BRCP that will apply to the 2028/29 capacity year must include:[20]

- All reasonable costs that are expected to be incurred when developing, constructing and installing a 200 MW / 1,200 MWh BESS, on the Clean Energy Link – North.
- The operational and maintenance costs, and costs of financing the BESS over the 15-year expected lifespan.

In detail, the BRCP's major cost components consist of:

- The annualised total capital cost of building and connecting the BESS, including:[21]
  - Total BESS supply and installation costs
  - Construction costs
  - Transmission connection capital costs (including the Fixed Capital Charge)
  - Land costs
  - Other indirect costs including:
    - Owner's design and project management costs
    - Legal, financing and insurance costs
    - Environmental and development approval costs
    - Connection, registration and licencing costs.
- An annualised fixed operating and maintenance (O&M) component, which includes:[22]
  - The fixed maintenance costs of the BESS including service, inspection and preventive maintenance
  - Corporate overheads
  - Transmission network service charges
  - Transmission O&M costs
  - Any other reasonable fixed operating and maintenance costs such as local government rates and site security.

To account for financing, the BRCP is determined using a Weighted Average Cost of Capital (WACC) approach across a 15-year expected economic life. The 15-year expected economic

[20] *WEM Procedure: Benchmark Reserve Capacity Prices*, 19 January 2026, clauses 2.1.5 and 2.2.3(a)(ii), (online).

[21] Ibid, section 3.

[22] Ibid, section 5.

life is specified in the WEM Procedure and was arrived at based on the typical financing terms for large scale battery projects and the expected life of cycling lithium-ion battery cells given typical battery cycling degradation profiles.[23]

To determine the draft 2026 BRCP, the ERA used public information and advice from consultants GHD Advisory, Western Power, and Landgate.[24]

[23] *WEM Procedure: Benchmark Reserve Capacity Prices*, 19 January 2026, clause 2.2.3(a)(ii) (online), and Economic Regulation Authority, 2026, *Procedure Change Report: Benchmark Reserve Capacity Prices – [EEPC_2025_01]*, p. 6 (online).

[24] Economic Regulation Authority, 2026, *Benchmark Reserve Capacity Price costs 2028/29 Capacity Year,* Report prepared by GHD Advisory, p. 24, (online).

Economic Regulation Authority, 2026, *Land Values for the 2026 Benchmark Reserve Capacity Price*, Report prepared by Landgate, (online).

Economic Regulation Authority, 2026, *Total Transmission Cost Estimate for the Benchmark Reserve Capacity Price for 2028/29*, Report prepared by Western Power, (online).

3. Draft determination

The ERA's draft determination of the 2026 BRCPs for both peak and flexible capacity is $491,700 per MW per year for the 2028/29 capacity year (see Table 2).[25]

Table 2: Draft BRCP determinations for the 2028/29 capacity year

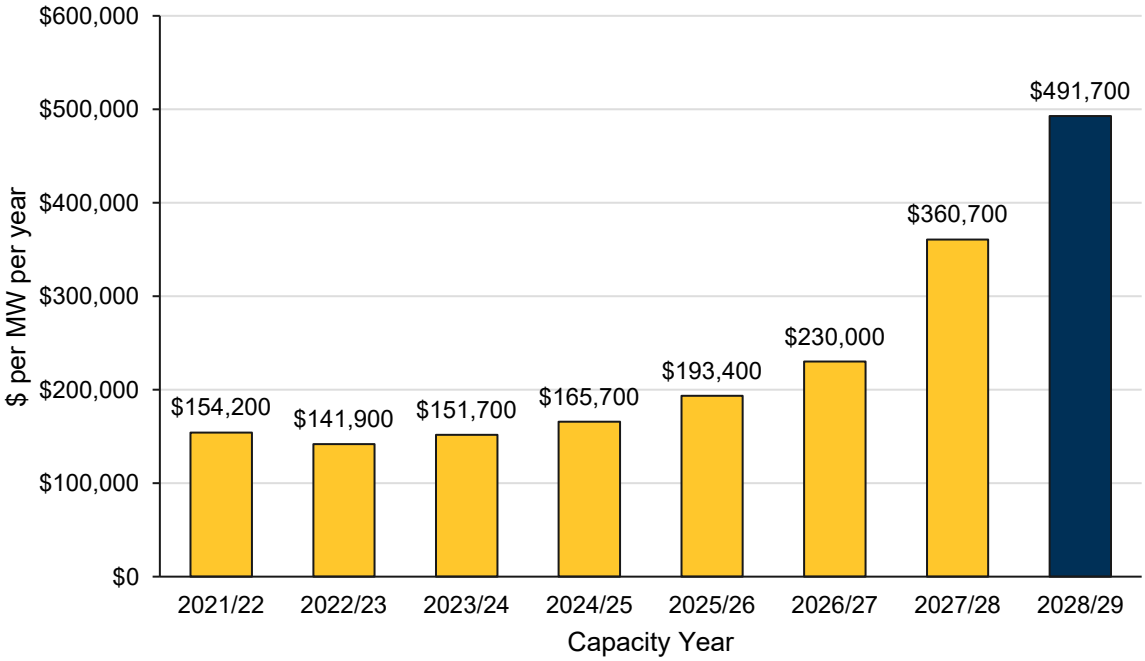
BRCP type	In $ per MW per year
Peak BRCP	491,700
Flexible BRCP	491,700

Source: ERA's assessment of BRCP data, using the formula in the BRCPs WEM procedure.

Since the Coordinator of Energy determined that both the Peak and Flexible BRCPs are to be based on the same Benchmark Technology, the draft BRCPs are the same. AEMO will use the respective BRCP to determine the Peak and Flexible Reserve Capacity Prices for 2028/29.

Figure 1 shows the Peak BRCPs since the 2021/22 capacity year.[26] The large increase in 2027/28 is primarily due to the more expensive battery reference technology relative to the previous open cycle gas turbine (OCGT) technology. The increase in the 2028/29 capacity year is due to the change in the Benchmark Technology's storage duration from four hours to six hours.

Figure 1: BRCPs from the 2021/22 capacity year to 2028/29



25 Electricity System and Market Rules (WA), 1 January 2026, Rule 4.16.1, (online).

26 The Flexible Benchmark Reserve Capacity Price was introduced for the 2025 Reserve Capacity Cycle and applies from the 2027/28 Capacity Year resulting from changes to the ESM Rules on 13 December 2023. The ERA must determine both Flexible and Peak BRCPs – Electricity System and Market Rules (WA), 1 January 2026, Rule 4.16.1, (online). Flexible Capacity is the price paid to those capacity providers with capacity that can respond to large and sudden changes in demand.

Source: Australian Energy Market Operator, 'Benchmark Capacity Price archive', (online) and Economic Regulation Authority, 'Benchmark Reserve Capacity Price', (online).

Note: For the capacity years 2021/22 to 2026/27, the BRCP was based on a 160 MW Open Cycle Gas Turbine.

Both of the Peak and Flexible 2027/28 BRCPs were determined on a 200 MW / 800 MWh BESS benchmark technology.

The draft 2028/29 BRCPs were determined based on a 200 MW / 1,200 MWh BESS for both Peak and Flexible capacity.

3.1 The BRCP calculation

The BRCP is calculated using the following formula:

$$BRCP = \frac{Annualised\ Capital\ Cost + Annual\ Fixed\ O\&M\ Cost}{Capacity\ Credits}$$

Where:

a. $Annualised\ Capital\ Cost$ is the BESS's annualised capital cost in Australian Dollars per year ($/Year) detailed in chapter 4, that is:

   i. Calculated using the formula in the WEM Procedure (see Appendix 5).

   i. Annualised over a 15-year period using a nominal Weighted Average Cost of Capital (WACC) (see section 4.6 and Appendix 7).

b. $Annual\ Fixed\ O\&M\ Cost$ is a BESS's annual fixed operating and maintenance cost in Australian Dollars per year ($/Year) as detailed in chapter 5; and

c. $CAPACITY\ CREDITS$ are the BESS's Capacity Credits expected to be assigned by AEMO for Year 3 of the Reserve Capacity Cycle (in MWs) (see section 3.2).

Table 3 contains a comparison of the draft 2026 BRCP determination against the final 2025 BRCP values, by component.

Table 3: Changes between the 2025 BRCP and draft 2026 BRCP by cost component

Component	Draft 2026 BRCP determination	2025 BRCP determination	Change from 2025
BRCP ($/MW/Year)	491,700	360,700	131,000 36%
Annualised capital costs ($/Year)	84,223,474	64,016,990	20,206,484 32%
Annualised fixed O&M costs ($/Year)	14,110,037	8,121,329	5,988,709 74%
Expected Capacity Credits (MW)	200	200	No change

Source: ERA analysis of the BRCP data and Economic Regulation Authority, 2025 Benchmark Reserve Capacity Price for the 2027/28 capacity year, Final determination, p. 5, (online).

Chapter 4 provides details on the BESS's annualised capital costs and chapter 5 provides details on the fixed O&M costs for the draft 2026 BRCP. For completeness, comparisons between the 2025 BRCP and draft 2026 BRCP by cost component are shown in Appendix 4, Appendix 5, Appendix 6.

For transparency, the ERA has published the draft BRCP calculation spreadsheet on our website.[27]

3.2 Expected capacity credits

The expected capacity credits for the 2026 BRCP BESS are 200 MW, based on the BRCPs WEM Procedure that requires the BESS to be able to inject 200 MW on day 1 of the 2028/29 capacity year. The BESS build-size accounts for degradation between construction, commissioning and the start of the 2028/29 capacity year, which includes additional capacity to ensure 200 MW of capacity credits are allocated. The level of this additional capacity is detailed in GHD's report.[28]

The Network Access Quantity framework, which accounts for network limitations when assigning capacity credits, does not affect the BRCPs' number of expected capacity credits as the Coordinator of Energy's determination requires the Benchmark Technology to be installed in an unconstrained part of the network along the Clean Energy Link – North.[29] This was discussed in the ERA's BRCP Procedure review.[30]

[27] Economic Regulation Authority, 'Benchmark Reserve Capacity Prices', (online).

[28] This is included in the uplift in the battery modules component of the BESS – see: Economic Regulation Authority, 2025, *Benchmark lithium BESS costs, BRCP procedure update,* Report prepared by GHD, p. 6 (online).

[29] The Network Access Quantity (NAQ) is a feature of the RCM that provides a cap on the amount of capacity credits a facility can receive based on the available network capacity at the relevant connection point. AEMO determines each facility's NAQ annually.

[30] Economic Regulation Authority, 2026, *Procedure Change Report: Benchmark Reserve Capacity Prices – [EEPC_2025_01]*, pp. 5-6, (online).

4. Annualised BESS capital costs

The ERA has estimated the total BESS development and capital costs to be around $624 million (or an annualised cost of around $84 million). The BRCPs WEM Procedure sets out how we calculate these costs (see Appendix 5).[31]

The largest capital cost contributor is the cost of supplying and installing the BESS, (see section 4.1). Each component is discussed in the rest of this chapter and shown in Table 4. For completeness, a comparison of the 2026 BRCP capital components against the 2025 BRCP values is provided in Appendix 4.

Table 4: BESS capital cost components

Cost component	Draft 2026 BRCP determination	2025 BRCP determination	Change
BESS Supply and Installation costs	$347,710,144	$236,125,852	$111,584,292 47%
Construction costs	$140,248,550	$77,237,106	$63,011,443 82%
Transmission connection capital costs[32]	$53,975,600	$39,082,200	$14,893,400 38%
Land costs[33]	$4,342,908	$9,905,563	($5,562,655) (56%)
Other indirect costs	$47,210,644	$30,149,414	$17,061,230 57%
Contingency cost[34]	$0	$58,875,020	($58,875,020) (100%)
Weighted Average Cost of Capital	10.47%	10.46%	1 percentage point
Total BESS cost	**$623,783,677**	**$474,395,074**	**$149,388,603 32%**
Annualised capital cost ($/year)	**$84,223,474**	**$64,016,990**	**$20,206,484 32%**

Source: ERA analysis of BRCP data.

Note: Other indirect costs and contingency costs make up the "M" margin – see section 4.5.

Transmission connection capital costs for the 2026 BRCP includes a fixed capital charge – see section 4.4.1.

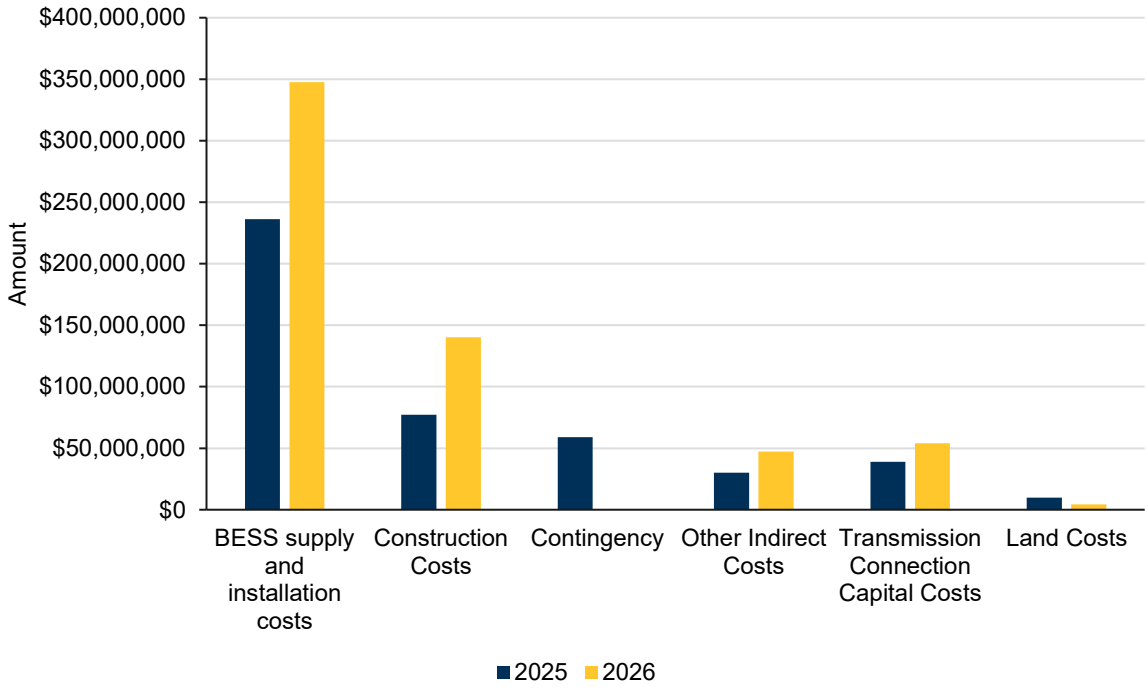
[31] WEM Procedure: Benchmark Reserve Capacity Prices, 19 January 2026, section 3.1 (online).

[32] Transmission connection capital costs for the 2026 BRCP includes a fixed capital charge – see section 4.4.1.

[33] This substantial decrease in land costs is due to the change of the unconstrained location from the Kwinana or Pinjar regions (as determined by the Coordinator of Energy) to the Clean Energy Link – North. The 2025 BRCP determination used Kwinana or Pinjar regions as the unconstrained land locations and these regions have a higher average land prices than the regions on the Clean Energy Link – North.

[34] The ERA has removed contingency costs for this draft determination. This is discussed in section 4.5.2.

Figure 2: Chart of BESS capital cost components contributing to BRCP determination



Source: ERA analysis of BRCP data.

4.1 BESS supply and installation costs

The ERA engaged GHD to provide estimates of the BESS supply and installation costs (around $348 million) with the components shown in Table 5. Differences between the 2025 BRCP determination and this draft determination are mostly due to the change in the Benchmark Technology from a 4-hour BESS (200 MW / 800 MWh) to a 6-hour BESS (200 MW / 1,200 MWh).

Table 5: BESS supply and installation cost components for the draft 2026 BRCP compared with the 2025 BRCP

Component	Draft 2026 BRCP determination ($)	2025 BRCP determination ($)	Change ($)
Lithium-ion modules	246,671,109	177,600,000	69,071,109 39%
Power conversion system	51,241,685	27,800,000	23,441,685 84%
Balance of plant (materials and equipment)	49,797,350	30,725,852	19,071,498 62%
Total BESS supply and installation costs	**347,710,144**	**236,125,852**	**111,584,292** **47%**

Source: Economic Regulation Authority, 2026, Benchmark Reserve Capacity Price costs 2028/29 Capacity Year, Report prepared by GHD Advisory, pp. 11-13, (online) with cost escalation applied.

Note: Figures may not add up exactly due to rounding.

4.1.1 Lithium-ion battery modules

The BRCPs WEM Procedure requires the BESS to be estimated using a lithium-ion battery module with a lithium iron phosphate sub-chemistry.[35] GHD estimated this at around $247 million, based on original equipment manufacturer information. This cost includes additional capacity to ensure the BESS receives 200 MW of capacity credit allocation in 2028/29.[36]

The increase of $69 million from the 2025 BRCP determination cost is due to the increase in the amount of modules required, resulting from the increase in storage capacity from 800 MWh to 1,200 MWh (a 50 per cent increase) and higher input prices .[37] The higher input costs of battery modules have offset the market expectations in respect of decreasing prices of battery cells.[38]

4.1.2 Power conversion system

The power conversion system is estimated to cost around $51 million and comprises inverters that convert the direct current from the battery cells to alternating current for feeding into the Western Power network.[39] This estimate is based on information from original equipment manufacturers, obtained by GHD.

GHD's report provides a cost of grid-forming power conversion systems of $57 million, which is representative of grid-scale BESS offerings in Australia. The ERA has instead used the cost of a grid-following inverter, which is consistent with the BRCP WEM Procedure to include the minimum level of equipment required of the Benchmark Technology that is consistent with the ESM Rules.[40] Neither the ESM Rules, nor the Coordinator of Energy's Benchmark Technology determination, specify the type of inverters that must be used for estimating the BRCP. GHD has subsequently provided the ERA with an estimate of grid-following power conversion systems (approximately $51 million) which is the amount used in this determination. The cost differences are outlined in Table 6.

Table 6: Difference in figures for power conversion system between GHD and the ERA

	Unit cost ($/kW)	Total cost estimate ($)
Grid-following power conversion system	256	51,241,685
Grid-forming power conversion system	283	56,575,409
Difference	(27)	(5,333,724)

Source: Economic Regulation Authority, 2026, Benchmark Reserve Capacity Price costs 2028/29 Capacity Year, *Report prepared by GHD, p.13 (online), and further information provided by GHD.*

35 WEM Procedure: Benchmark Reserve Capacity Prices, 19 January 2026, clause 2.1.6(a), (online).

36 Economic Regulation Authority, 2026, *Benchmark Reserve Capacity Price costs 2028/29 Capacity Year,* Report prepared by GHD Advisory, pp. 11-13, (online).

37 Economic Regulation Authority, 2026, *Benchmark Reserve Capacity Price costs 2028/29 Capacity Year,* Report prepared by GHD Advisory, p. 11, (online).

38 Ibid.

39 Ibid.

40 WEM Procedure: Benchmark Reserve Capacity Prices, 19 January 2026, (online), clause 2.1.6(d).

4.1.3 Balance of plant (materials and equipment)

The balance of plant, estimated at around $50 million, covers the supply and delivery of cables, transformers and other materials relevant to a BESS facility.[41] The increase of $19 million relative to the 2025 BRCP determination is mostly due to labour and materials cost increases resulting from updated project cost information and some components that scale with increasing energy (MWh) storage requirements.

As required by the BRCP WEM Procedure, these balance of plant costs have been escalated to 1 April 2028, based on Consumer Price Index (CPI) forecasts.[42]

4.2 BESS construction costs

Construction costs for a new BESS are a significant contributor to the total BESS capital cost at around $140 million and include both site preparation and main works construction contracts. The increase in cost is due mostly to the larger storage capacity requiring more modules to be installed. Further details are available in GHD's report.[43]

These costs are escalated based on expected labour cost increases until 1 April 2028 as required by the BRCPs WEM Procedure. Material costs are escalated using the CPI, while labour costs are escalated using the Wage Price Index (WPI). We have considered different ratios for the materials to labour costs split that might better represent the labour/capital mix in the construction cycle. GHD has recommended a 40 per cent capital and 60 per cent labour split for construction. Our research and understanding suggests a range between 70 per cent capital: 30 per cent labour split and an 80 per cent capital: 20 per cent labour split (CPI to WPI) is more appropriate. However, we have used GHD's recommended ratio for BESS construction costs based on the fact that many of the material costs in the development of this project are covered in other cost components, such as 'Lithium-ion battery modules' and 'power conversion systems', thus reducing the material cost component within these construction costs. If we were to include the other BESS module costs with constructions costs, we would approach the more expected ratio of 80 per cent capital: 20 per cent labour split.

For this draft determination we are seeking stakeholder feedback on the appropriateness of the split used for the BESS construction costs.

4.3 Land costs

The total land cost is around $4.3 million. This is 56 per cent lower than the nearly $10 million in land costs in the 2025 BRCP determination (see Table 7). The significant reduction in land costs is due to the more numerous and varying land prices along the Clean Energy Link – North, relative to the average land prices of the Pinjar and Kwinana regions for the 2025 BRCP. This decrease in cost is partially offset by the increase in the total land size required to house the additional storage requirements of the battery (up to 7.3 hectares from 6.5 hectares).

41 Economic Regulation Authority, 2026, *Benchmark Reserve Capacity Price costs 2028/29 Capacity Year,* Report prepared by GHD Advisory, pp. 12-13, (online).

42 Reserve Bank of Australia, 2025, *Statement on Monetary Policy – November 2025*, p. 59 (online).

43 Economic Regulation Authority, 2024, *Benchmark Reserve Capacity Price costs 2027/28 Capacity Year,* Report prepared by GHD Advisory, pp. 10-11, (online).

The Coordinator of Energy's 2025 review of the Benchmark Technology determined the unconstrained land location for the BESS to be on the Clean Energy Link – North. The ERA's review of the BRCPs WEM Procedure updated this specification and identified eight areas on the Clean Energy Link – North (Three Springs, Eneabba, Badgingarra, Cataby, Gingin, Muchea, Pinjar, and Neerabup) for valuation.[44] Previously, the Pinjar and Kwinana regions only were valued and these regions had a higher average land cost than the average of the regions on the Clean Energy Link – North.

Table 7: Comparison of land costs between the 2025 and draft 2026 BRCP determination

BRCP land component	Draft 2026 BRCP determination	2025 BRCP determination	Difference
Average land cost per hectare ($)	536,250	1,412,500	(876,250) (62%)
Total hectares required	7.3	6.5	0.8 12%
Total land cost ($)	4,342,908	9,905,563	(5,562,655) (56%)

Source: Economic Regulation Authority, 2026, Land Values for the 2026 Benchmark Reserve Capacity Price, Report prepared by Landgate, p. 4, (online);

Economic Regulation Authority, 2024, Land Values for the 2025 Benchmark Reserve Capacity Price, Report prepared by Landgate, p. 6, (online); and

WEM Procedure: Benchmark Reserve Capacity Prices, 19 January 2026, section 3.5, (online).

Note: The total land cost includes escalation. The escalation can be found in the ERA's draft 2026 BRCPs determination calculation spreadsheet published alongside this determination.

Details on the land costs are available in Landgate's report.[45] Landgate does not provide cost-escalated amounts in their land value assessments. Consequently, the ERA has escalated the total average land valuation by the CPI up to 1 April 2028, as required by the WEM Procedure.

4.4 Transmission connection costs

The transmission connection costs of around $54 million consists of the capital costs and the Fixed Capital Charge. Although capital costs themselves have decreased in this component by more than $5 million, the additional Fixed Capital Charge has resulted in an overall 38 per cent increase in the total transmission connection capital costs (see Table 8). The Fixed Capital Charge is currently being consulted on by Energy Policy WA. We have assumed that this policy will be adopted and thus this cost is required to be incorporated into this draft determination (see section 4.4.2).

[44] Economic Regulation Authority, 2025, Draft WEM Procedure – Benchmark Reserve Capacity Prices, pp. 8-9, (online).

[45] Economic Regulation Authority, 2026, *Land Values for the 2026 Benchmark Reserve Capacity Price*, Report prepared by Landgate, (online).

Table 8: Transmission connection costs comparison between the draft 2026 BRCP determination and 2025 BRCP determination

BRCP transmission connection cost component	Draft 2026 BRCP determination ($)	2025 BRCP determination ($)	Difference ($)
Capital cost	33,975,600	39,082,200	(5,106,600) (13%)
Fixed Capital Charge	20,000,000	N/A	20,000,000 100%
Total transmission connection capital costs	53,975,600	39,082,200	14,893,400 38%

Source: Economic Regulation Authority, 2026, Total Transmission Cost Estimate for the Benchmark Reserve Capacity Price for 2028/29*, Report prepared by Western Power, (online).*

Economic Regulation Authority, 2024, Total Transmission Cost Estimate for the Benchmark Reserve Capacity Price for 2027/28*, Report prepared by Western Power, (online).*

4.4.1 Transmission connection capital costs

Western Power provided the ERA with cost estimates for connecting the BESS to the transmission network, which includes building the required substation and transmission lines.[46] The transmission connection costs are nearly $34 million and are detailed in Western Power's report.

The transmission connection costs for the draft 2026 BRCP determination are around $5 million lower than for the 2025 BRCP determination (around $39 million) due to significantly lower land easement costs associated with lower land values (see section 4.3) and a lower escalation factor for network infrastructure.[47]

4.4.2 Fixed Capital Charge

The Department of Energy and Economic Diversification has proposed a Fixed Capital Charge of $100,000 per MW to cover shared network transmission assets for new and upgraded generation and load connections that are over 10 MW in size. This charge is expected to start from 1 July 2026, and given this determination is for a battery expecting to be constructed by 1 October 2028, the ERA has included this cost into the BRCP model.

This charge is $20 million based on the 200 MW capacity of the Benchmark Technology at a cost of $100,000 per MW. Although this charge is yet to be finalised, the ERA, in its review of the BRCP Procedure explicitly included this in the BRCP determination as not accounting for this cost would inadequately account for the fixed costs required to build the Benchmark Technology. No escalation is included in this cost as it is expected to be incurred at the same time as the other BRCP capital costs calculated until 1 April 2028. The ERA will monitor the progress of the Fixed Capital Charge policy and make appropriate changes based on available information when the ERA is making its final BRCP determination.

[46] Economic Regulation Authority, 2026, *Total Transmission Cost Estimate for the Benchmark Reserve Capacity Price for 2028/29*, Report prepared by Western Power, (online).

[47] Economic Regulation Authority, 2026, *Total Transmission Cost Estimate for the Benchmark Reserve Capacity Price for 2028/29*, Report prepared by Western Power, section 4.2 (online).

4.5 Other indirect costs and contingency ("M" margin)

The "M" margin is part of the BRCP capital cost formula (detailed in Appendix 5) and represents ancillary, indirect, and contingency costs associated with constructing a BESS which also includes insurance. The "M" margin totalled around $130 million, with its components discussed below.

4.5.1 Other indirect costs

GHD provided an estimate of other indirect costs for constructing and installing the BESS of around $47 million (escalated to 1 April 2028).[48] These include:

- Connection agreements, dangerous goods licensing, and market registration
- Environmental and developmental approvals
- Legal costs, insurance, water supply, and commissioning costs
- Owner's engineering and construction management and support.

These costs were escalated using a forecast of Western Australia's WPI, as most of these costs are labour-related.[49]

4.5.2 Contingency

The ERA has removed contingency from our estimate of the BRCP for the 2028/29 capacity year. We consider that contingency costs are incurred in the case that an adverse event occurs. In usual circumstances, contingency costs are not incurred, and the ERA has been concerned about whether this potentially overcompensates capacity credit holders. The BRCP WEM Procedure requires the BRCP to "*include all reasonable costs* ***expected to be incurred***…" [emphasis added].[50] In previous BRCP determinations, we had included contingency costs and GHD's report contains a contingency of around 14 per cent of the total capital cost for large scale wholesale BESS projects[51], however, given further consideration, the ERA views it as appropriate to remove this cost component.

4.6 Weighted Average Cost of Capital

The WACC is an estimate of the BESS's financing cost and investor's associated long-term required rate of return for determining the BRCPs' annualised costs. The draft 2026 BRCP WACC is 10.47 per cent (up slightly from the 10.46 per cent WACC for the 2025 BRCP) and is discussed in Chapter 6 and detailed in Appendix 7.

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48 Economic Regulation Authority, 2026, *Benchmark Reserve Capacity Price costs 2028/29 Capacity Year,* Report prepared by GHD Advisory, pp. 22-23, (online).

49 Economic Regulation Authority, 2026, *Benchmark Reserve Capacity Price costs 2028/29 Capacity Year,* Report prepared by GHD Advisory, pp. 27-28, (online).

50 WEM Procedure: Benchmark Reserve Capacity Prices, 19 January 2026, (online), clause 2.2.1.

51 Economic Regulation Authority, 2026, *Benchmark Reserve Capacity Price costs 2028/29 Capacity Year,* Report prepared by GHD Advisory, pp. 22-23, (online).

5. BESS fixed operating and maintenance costs

The BESS's fixed O&M costs accounts for around 13 per cent of the BRCP with an estimated annual cost of around $14 million. The ongoing fixed O&M costs includes:

- BESS O&M, BESS substation O&M, and balance of plant O&M
- Connection assets fixed O&M costs
- Transmission network service charges
- Corporate overheads
- Site security services
- Local government rates.

Table 9 shows the breakdown of total cost across the various fixed O&M cost categories. GHD provided information that the ERA has used to calculate the BRCPs' fixed O&M cost component.[52] A comparison of the BRCP's fixed O&M costs with the 2025 BRCP is detailed in Appendix 6.

Table 9: Fixed O&M costs by component

Component	Draft 2026 BRCP determination ($/Year)	2025 BRCP determination ($/Year)	Change ($)
Annualised fixed O&M costs	**14,110,037**	**8,121,329**	**5,988,708** **74%**
BESS O&M	10,541,684	5,041,739	5,499,946 109%
Transmission O&M	129,265	124,875	4,390 4%
Transmission network service charges	1,550,026	1,362,173	187,853 14%
Corporate overheads	1,457,940	1,214,511	243,428 20%
Site security	187,059	180,773	6,286 4%
Local government rates	244,064	197,258	$46,805 24%

Source: ERA analysis of BRCP data using Economic Regulation Authority, 2026, Benchmark Reserve Capacity Price costs 2028/29 Capacity Year, Report prepared by GHD Advisory, pp.23-27, (online).

[52] Economic Regulation Authority, 2026, *Benchmark Reserve Capacity Price costs 2028/29 Capacity Year,* Report prepared by GHD Advisory, pp. 23-27, (online).

5.1 BESS O&M

The BESS, BESS substation and Balance of Plant O&M costs include:

- Electrical testing of the BESS substation
- Inspections and servicing of the battery modules and inverter stations
- Preventative maintenance on breakers, cables, and other equipment.

This amounts to around $11 million a year, with details in GHD's report.[53] This increase is due to higher labour and materials costs, with GHD noting stricter supporting systems for containerised storage units having contributed to the increase in cost.

5.2 Transmission O&M

The transmission O&M mostly consists of costs for the ongoing maintenance of the connection switchyard and the overhead transmission line.

These costs are mostly labour and associated overhead and equipment costs amounting to around $129,000 a year.[54] This increase is due to rising labour and materials costs.

5.3 Transmission network service charges

The BESS will incur Western Power transmission network service charges for using the electricity network. These charges are estimated at around $1.6 million a year, based on the tariffs published by Western Power. This includes use of system charges and metering charges, with further information in GHD's report.[55] This $1.6 million in charges for the draft 2026 BRCP determination is around $0.2 million more expensive than for the 2025 BRCP determination (around $1.4 million), rising due to higher network fees.

5.4 Corporate overheads

Corporate overheads and other related consulting services required for ongoing running of the BESS amounts to around $1.5 million a year and comprises:[56]

- Corporate overheads to cover office costs, employee insurance, and office leases
- Insurance costs not associated with BESS plant warranties
- Legal and regulatory costs
- Subcontractors for maintenance, testing, checks, and inspections

[53] Economic Regulation Authority, 2026, *Benchmark Reserve Capacity Price costs 2028/29 Capacity Year,* Report prepared by GHD Advisory, pp. 24-25, (online).

[54] Economic Regulation Authority, 2026, *Benchmark Reserve Capacity Price costs 2028/29 Capacity Year,* Report prepared by GHD Advisory, pp. 24-25, (online).

[55] Ibid, p. 25.

[56] Ibid, pp. 25-26.

- Engineering support for the general operation and troubleshooting issues within the BESS.

The increase in cost is due to increases in labour costs that scale approximately with the larger storage size of the Benchmark Technology based on the cost estimate in GHD's report.

5.5 Site security

BESS site security costs, including emergency response and regular inspections is estimated at $187,059 a year and is in GHD's report.[57] The increase is due to increases in labour costs.

5.6 Local government rates

The local government rates are based on the BESS's 7.3 hectares gross rental value averaged across the local council areas on the Clean Energy Link – North. The average rate amounts to $244,064 a year, with details in GHD's report.[58] The increase in the overall cost is mostly due to the increase in land size (see section 4.3).

[57] Economic Regulation Authority, 2026, *Benchmark Reserve Capacity Price costs 2028/29 Capacity Year,* Report prepared by GHD Advisory, p. 26, (online).

[58] Ibid.

6. Weighted Average Cost of Capital

The WACC is used to estimate the financing costs of the BESS project and represents the long-term required rate of return when determining the annualised cost of the BRCP reference technology.

For the draft 2026 BRCP determination, the indicative nominal pre-tax WACC is 10.47 per cent (see Table 10). This is one basis point higher than the 10.46 per cent nominal pre-tax WACC for the 2025 BRCP.[59] The higher 2026 draft BRCP WACC reflects a slight increase in the nominal risk-free rate. This higher risk-free rate is partially offset by a lower debt risk premium.

Table 10: WACC values for the draft 2026 BRCP compared to the 2025 BRCP WACC values

Classification	Parameter	Draft 2026 BRCP value	2025 BRCP value
Cost of equity parameters	Nominal risk-free rate (%)	4.46	4.34
	Equity beta	1.20	1.20
	Market risk premium (%)	5.80	5.80
	Pre-tax return on equity (%)	13.44	13.29
Cost of debt parameters	Nominal risk-free rate (%)	4.46	4.34
	Debt risk premium (%)	1.400	1.710
	Debt issuance costs (%)	0.165	0.165
	Pre-tax return on debt (%)	6.03	6.22
Other parameters	Debt proportion (gearing) (%)	40	40
	Franking credits (gamma) (%)	50	50
	Corporate tax rate (%)	30	30
Weighted Average Cost of Capital	**Nominal pre-tax WACC (%)**	**10.47**	**10.46**

Source: ERA analysis of BRCP data.

[59] Economic Regulation Authority, *2025 Benchmark Reserve Capacity Price for the 2027/28 capacity year: Final determination,* p.15, (online). Based on a 20-trading day averaging period up to 31 October 2024.

Appendix 1 List of Tables

Appendix 2 List of Figures

Appendix 3 Draft 2026 BRCP by cost component

This Appendix provides a consolidated breakdown of the different components of the BRCP and their contribution to the overall BRCP (see Table 11: Contribution to the BRCP by cost component).

Table 11: Contribution to the BRCP by cost component

Component	Amount	Contribution to the BRCP (%)
Capital Cost sub-total	**$623,783,677**	**86**
Lithium-ion battery modules	$246,671,109	34
Power Conversion System	$51,241,685	7
Balance of Plant	$49,797,350	7
Total construction costs	$140,248,550	19
Land costs	$4,342,908	1
Transmission connection capital costs includes the Fixed Capital Charge	$53,975,600	7
Other indirect costs	$47,210,644	7
WACC	$30,295,832	4
Fixed O&M sub-total	**$14,110,037**	**14**
BESS O&M	$10,541,684	11
Transmission O&M	$129,265	0
Transmission network service charges	$1,550,026	2
Corporate overheads	$1,457,940	2
Site security	$187,059	0
Local Government rates	$244,064	0
Capacity Credits	**200 MW**	**N/A**

Sources: ERA analysis of BRCP data.

Economic Regulation Authority, 2026, Benchmark Reserve Capacity Price costs 2028/29 Capacity Year, Report prepared by GHD Advisory, (online).

Economic Regulation Authority, 2026, Land Values for the 2026 Benchmark Reserve Capacity Price, Report prepared by Landgate, (online).

Economic Regulation Authority, 2026, Total Transmission Cost Estimate for the Benchmark Reserve Capacity Price for 2028/29, Report prepared by Western Power, (online).

Note: Totals may not add up exactly due to rounding.

Appendix 4 Comparison between the draft 2026 BRCP determination and the 2025 BRCP determination, by component

Table 12 details the differences between the draft 2026 BRCP determination and the 2025 BRCP determination by cost component. Note that those figures that were previously quoted per MW is no longer done so to ensure ease of comparability with the ERA's BRCP calculation spreadsheet published alongside this determination on the ERA's website.[60]

Table 12: Comparison between the draft 2026 BRCP determination and 2025 BRCP determination by component

Component	Draft 2026 BRCP determination	2025 BRCP determination	Change from 2025
Expected capacity credits (MW)	200	200	0
Weighted Average Cost of Capital	10.47%	10.46%	1 percentage point
Power station cost ($)	487,958,694	313,362,958	174,595,736
Margin for legal, financing, and other costs	26.4%	28.4%	2 percentage points lower
Transmission Costs ($)	33,975,600	39,082,200	(5,106,600)
Fixed Capital Charge ($)	20,000,000	N/A[61]	20,000,000
Land Costs ($)	4,342,908	9,905,563	(5,562,655)
BESS O&M cost ($/year)	10,541,684	5,041,739	5,499,946
Transmission O&M costs ($/year)[62]	129,265	124,875	4,390
Fixed Network Access and ongoing charges ($/year)	1,550,026	1,362,173	187,853
All other O&M costs	1,889,062	1,592,542	296,520
Total Capital Costs ($)	**623,783,677**	**474,395,074**	**149,388,603**

60 Economic Regulation Authority, 'Benchmark Reserve Capacity Prices', (online).

61 The proposed fixed capital charge was released on 4 December 2025 and hence could not be incorporated into the ERA's 2025 BRCP determination that was made on 19 December 2024.

62 This is the combined transmission and switchyard O&M costs.

Component	Draft 2026 BRCP determination	2025 BRCP determination	Change from 2025
Annualised capital costs ($/year)	**84,223,474**	**64,016,990**	**20,206,484**
Annualised fixed O&M ($/year)	**14,110,037**	**8,121,329**	**5,988,709**
BRCP ($/MW/year)	**491,700**	**360,700**	**131,000**

Source: ERA analysis of BRCP data

Note: All other O&M includes corporate overheads and consulting services, site security and local government rates.

Appendix 5 Annualised capital costs

The formula for calculating the BRCP capital costs is:

$$CAPITAL\ COST\ = [PC\ \times (1 + M) + TC + LC] \times (1 + WACC)\text{^}0.5$$

The values for each input in the capital cost formula are provided in Table 13.

Table 13: Comparison of the draft 2026 BRCP determination and the 2025 BRCP capital costs

Component	Draft 2026 BRCP determination	2025 BRCP determination	Change
Power station cost (PC) ($)	487,958,694	313,362,958	174,595,736 11%
Weighted Average Cost of Capital (WACC) (%)	10.47	10.46	1 percentage point
Expected capacity credits (MW)	200	200	No change
Margin for legal, financing, and other costs (M) (%)	26.4	28.4[63]	2 percentage points lower
Transmission Costs (TC) ($)	53,975,600	39,082,200	14,893,400 38%
Land Costs (LC) ($)	4,342,908	9,905,563	(5,562,655) (56%)
Total Capital Costs ($)	**623,783,677**	**474,395,074**	**149,388,603 32%**
Annualised capital costs ($/Year)	**84,223,474**	**64,016,990**	**20,206,484 32%**

Source: ERA analysis of BRCP data

Note: PC is the combined total of BESS supply and installation costs and Construction costs.

M margin is the percentage that Contingency and Indirect Costs make up as part of the total capital costs not including Transmission Capital or Land Costs.

[63] The 2025 BRCP "M" margin of 28.4 per cent was calculated by adding the other indirect costs ($30.1 million) and contingency ($58.9 million) and dividing that by the power station's costs, comprising of the lithium-ion battery modules ($177.6 million), the power conversion system ($27.8 million), the electrical and control balance of plant costs ($30.7 million) and the total construction costs ($77.2 million). The 2026 BRCP has been calculated on the same basis.

Appendix 6 Comparison of operating and maintenance costs

This appendix shows the differences between the draft 2026 BRCP and the 2025 BRCP by fixed O&M cost component. Details on the fixed O&M components are discussed in Chapter 5 and Table 14.

Table 14: Comparison of the draft 2026 BRCP annualised fixed O&M costs determination values to the 2025 BRCP values

Component	Draft 2026 BRCP determination	2025 BRCP determination	Change
Annualised fixed O&M costs ($/year)	**14,110,037**	**8,121,329**	**5,988,709**
BESS O&M costs ($/year)	10,541,684	5,041,739	5,499,946
Transmission O&M costs ($/year)	129,265	124,875	4,390
Fixed network access and ongoing charges ($/year)	1,550,026	1,362,173	187,853
All other O&M	1,889,062	1,592,542	296,520

Source: ERA analysis of BRCP data

Note: All other O&M includes corporate overheads and consulting services, site security and local government rates.

Appendix 7 Weighted Average Cost of Capital

The weighted average cost of capital (WACC) is a calculation of a firm's cost of capital in which each component of capital, debt and equity, is proportionately weighted.

For the determination of the BRCP, the WACC:

- Represents a long-term required rate of return.
- Is used in an annuity calculation to calculate an annual compensation amount to investors for capital costs over the life of the asset.
- Is updated annually to reflect efficient financing costs at a point in time.

Calculation of the WACC in the BRCP WEM procedure

Section 4.2 of the WEM Procedure directs the ERA on how to calculate the WACC for the BRCP.[64]

Specifically, clauses 4.2.5 and 4.2.6 of the WEM procedure detail the high-level framework to be used:

> 4.2.5 The ERA must compute the WACC on the following basis:
>
> (a) The WACC must use the Capital Asset Pricing Model (**CAPM**) as the basis for calculating the return to equity.
>
> (b) The WACC must be computed on a pre-tax basis.
>
> (c) The WACC must use the standard Officer WACC method as the basis of calculation.
>
> 4.2.6 The pre-tax Officer WACC must be calculated using the following formulae:
>
> $$WACC_{nominal} = \frac{1}{(1 - t(1 - \gamma))} R_e \frac{E}{V} + R_d \frac{D}{V}$$
>
> Where:
>
> (a) R_e is the nominal return on equity (estimated using CAPM) and is calculated as:
>
> $$R_e = R_f + \beta_e \times MRP$$
>
> Where:
>
> (i) R_f is the nominal risk-free rate;
>
> (ii) β_e is the equity beta; and
>
> (iii) *MRP* is the market risk premium
>
> (b) R_d is the nominal return on debt and is calculated as:
>
> $$R_d = R_f + DM$$

[64] Economic Regulation Authority, 2026, *WEM Procedure: Benchmark Reserve Capacity Prices*, Section 4.2, (online).

Where:

(i) R_f is the nominal risk-free rate for the Capacity Year;

(ii) DM is the debt margin, which is calculated as the sum of the debt risk premium (DRP) and debt issuance cost (d);

(c) *t* is the benchmark rate of corporate income taxation, established at either an estimated effective rate or a value of the statutory taxation rate;

(d) γ is the value of franking credits;

(e) $\frac{E}{V}$ is market value of equity as a proportion of the market value of total assets;

(f) $\frac{D}{V}$ is market value of debt as a proportion of the market value of total assets;

(g) The nominal risk-free rate is based on the annualised yield on Commonwealth Government bonds with a maturity of 10 years:

i. using the indicative mid rates published by the Reserve Bank of Australia; and

ii. averaged over a 20-trading day period;

- The debt risk premium, DRP, is a margin above the risk free rate reflecting the risk in provision of debt finance. This will be estimated by the ERA as the margin between the annualised yields of Australian corporate bonds which have a BBB (or equivalent) credit rating from Standard and Poor's and the nominal risk free rate;[65]

(h) If there are no Commonwealth Government bonds with a maturity of 10 years on any day in the period referred to in Clause 4.2.6(g) of this WEM Procedure, the ERA may estimate the nominal risk free rate by interpolating on a straight line basis from the two bonds closest to the 10 year term and which also straddle the 10 year expiry date; and

(i) If the methods used in step Clause 4.2.6(i) of this WEM Procedure cannot be applied due to suitable bond terms being unavailable, the ERA may estimate the nominal risk-free rate by means of an appropriate approximation.

The ERA must estimate the WACC following the WEM Procedure. The ERA's annual BRCP determination involves two sets of components listed in clause 4.2.7 of the WEM Procedure:

[65] The ERA applies the revised bond yield approach to estimate the debt risk premium. The revised bond yield approach is detailed in the 2022 final gas rate of return instrument. Economic Regulation Authority, 2022, *2022 final gas rate of return instrument (Amended 12 September 2023)*, (online).

- Annual components, which require review each year and comprise the risk-free rate, debt risk premium and corporate tax rate.
- Structural components, which are fixed in the WEM Procedure until the ERA's next BRCPs review. These components include the market risk premium, equity beta, debt issuance costs, franking credit value and gearing ratio.

Clause 4.2.7 of the WEM Procedure details the parameters that the WACC must use as variables each year (see Table 15):

Table 15: WACC parameters for the BRCP calculation

CAPM parameter	Notation/Determination	Component	Value
The following variables are to be determined			
Nominal risk-free rate of return (%)	R_f	Annual	
Debt risk premium (%)	DRP	Annual	
Corporate tax rate (%)	t	Annual	
The following variables are specified in the WEM Procedure			
Market risk premium (%)	MRP	Fixed	5.80
Equity beta	β_e	Fixed	1.2
Debt issuance costs (%)	d	Fixed	0.165
Franking credit value	γ	Fixed	0.50
Debt to total assets ratio (%)	$\frac{D}{V}$	Fixed	40
Equity to total assets ratio (%)	$\frac{E}{V}$	Fixed	60

Source: WEM Procedure: Benchmark Reserve Capacity Prices, 19 January 2026, clause 4.2.7 (online).

Updated annual WACC

The ERA has reviewed and calculated the annual components as listed in the WEM Procedure, which are the nominal risk-free rate, the debt risk premium, and the corporate tax rate.

Nominal risk-free rate

The risk-free rate is the return an investor would expect when investing in an asset with no risk. This is the rate of return an investor receives from holding an asset with a guaranteed payment stream. Since there is no likelihood of default, the return on risk free assets compensates investors for the time value of money.

For the BRCP calculation, the WEM Procedure uses Commonwealth Government bonds as the proxy for risk free assets in Australia for estimating the risk-free rate of return. To estimate the risk-free rate, the WEM Procedure uses indicative mid-rates published by the Reserve

Bank of Australia (RBA). Where there are no Commonwealth Government bonds with a maturity of exactly 10 years the ERA interpolates the risk-free rate on a straight-line basis.

The use of a 10-year term for the risk-free rate is consistent with the purpose of BRCP WACC calculations, which is to reflect a long-term rate of return for the annuitisation of capital costs over the life of the BESS project.

The BRCP process uses a nominal risk-free rate, which includes a component for the market expectations of inflation.

For the draft 2026 BRCP WACC, the ERA determined a nominal risk-free rate of 4.46 per cent.[66] This is higher than the 2025 BRCP's 4.34 per cent nominal risk free rate.[67]

Debt risk premium

The debt risk premium is the rate of return above the risk-free rate that lenders require to compensate them for lending funds to a firm. The debt risk premium compensates debt holders for the possibility of default by the issuer.

The debt risk premium is closely aligned with the risk of the business. When issuing debt in the form of bonds, a credit rating can be assigned that reflects the probability of default of the issuer, and therefore the risk present in that entity's bonds. The BRCPs WEM procedure requires the use of a BBB (or equivalent) credit rating from Standard and Poor's.[68]

The ERA uses a "revised bond yield approach" to determine the debt risk premium at a point in time by:[69]

- Step 1: Determining the benchmark sample – identifying a sample of relevant domestic and international corporate bonds that reflect the BBB credit rating.[70]
- Step 2: Collecting data and converting the bond yields to Australian dollar equivalents.
- Step 3: Averaging yields over the averaging period – calculating an average Australian dollar equivalent bond yield for each bond across the averaging period.
- Step 4: Estimating the yield curves – estimating yield curves on the bond data by applying the Gaussian Kernel, Nelson-Siegel and Nelson-Siegel-Svensson techniques.[71]
- Step 5: Estimating the return on debt – calculating the simple average of the three yield curves' 10-year costs of debt to arrive at a market estimate of the 10-year cost of debt.

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66 The nominal risk-free rate of 4.46 per cent is based on a 20-trading day averaging period up to 28 November 2025.

67 Economic Regulation Authority, 2024, *2025 Benchmark Reserve Capacity Price for the 2027/28 capacity year: Final determination*, p.18 (online).

68 WEM Procedure: Benchmark Reserve Capacity Prices, 19 January 2026, clause 4.2.6(h), (online).

69 Economic Regulation Authority, 2022, *2022 final gas rate of return instrument (Amended 12 September 2023)*, p.12, (online).

70 The WEM Procedure Change Report for the BRCP details that the new reference technology for the purposes of BRCP having a credit rating of BBB.

71 The Gaussian Kernel method recognises that the observed spreads on bonds with residual maturities close to the target tenor (or maturity) contains more relevant information for estimation. The Nelson-Siegel model captures many of the typical observed shapes that the yield curve assumes over time. As an extension of the Nelson-Siegel model, the Nelson-Siegel-Svensson method incorporates additional flexibility to more precisely capture the movement of the yield curve in a more volatile market.

- Step 6: Calculating the debt risk premium by subtracting the 10-year risk free rate from the 10-year cost of debt.

For the draft 2026 BRCP WACC, the ERA determined a debt risk premium of 1.400 per cent.[72] This is lower than the 1.710 per cent debt risk premium for the 2025 BRCP.[73]

Corporate tax rate

The ERA has reviewed the corporate tax rate which has not changed from 30 per cent.

Updated BRCP WACC

This appendix provides an illustrative rate of return for the BRCP based on the approach detailed in the BRCP WEM Procedure and the 20-trading day averaging period ending on 28 November 2025.

For the draft 2026 BRCP, the indicative nominal pre-tax WACC is 10.47 per cent (see Table 16). This is slightly higher than the 10.46 per cent nominal pre-tax WACC for the 2025 BRCP.[74]

The higher draft 2026 BRCP WACC reflects an increase in the nominal risk-free rate. This higher risk-free rate is partially offset by a lower debt risk premium for the draft 2026 BRCP.

Table 16: WACC for the draft 2026 BRCP compared to the 2025 BRCP WACC values

Parameter	Draft 2026 BRCP value	2025 BRCP value
Estimation date	28 November 2025	31 October 2024
Nominal risk-free rate (%)	4.46	4.34
Equity beta	1.20	1.20
Market risk premium (%)	5.80	5.80
Pre-tax return on equity (%)	13.44	13.29
Nominal risk-free rate (%)	4.46	4.24
Debt risk premium (%)	1.400	1.710
Debt issuance costs (%)	0.165	0.165
Pre-tax return on debt (%)	6.03	6.22
Debt proportion (gearing) (%)	40	40
Franking credits (gamma) (%)	50	50
Corporate tax rate (%)	30	30
Nominal pre-tax WACC (%)	**10.47**	**10.46**

Source: ERA analysis

[72] The debt risk premium of 1.400 per cent is based on a 20-trading day averaging period up to 28 November 2025.

[73] Economic Regulation Authority, 2024, *2025 Benchmark Reserve Capacity Price for the 2027/28 capacity year: Final determination*, p.18 (online).

[74] Ibid.