11 February 2026

Economic Regulation Authority
Level 4, Albert Facey House
469 Wellington Street, Perth WA 6000

Via online submission form at: https://www.erawa.com.au/consultation

Submission from the WA Expert Consumer Panel on the Draft Benchmark Reserve Capacity Prices Determination.

Thank you for the opportunity for members of the WA Expert Consumer Panel (ECP) [Anne Hill, Chris Alexander, Luke Skinner, Noel Schubert, Rosh Ireland] to make a submission on the above draft determination.

As a panel supported by the State Government's Western Australian Advocacy for Consumers of Energy (WA ACE) program, we are committed to improving consumer outcomes in the energy sector. We represent energy consumers on the Market Advisory Committee (MAC) and its working groups, and in other consultation processes relevant to consumers of energy in Western Australia.

Main points

ECP members:

1. Are very concerned about the proposed steep increase in the draft Benchmark Reserve Capacity Prices (BRCPs), on top of the large increase last year, due to the impacts on consumer electricity costs.

2. Consider that capital costs of the lowest cost BESS - that provides good value in terms of capital and fixed O&M costs - should be the basis for the BRCPs determination, rather than an “averaging” of costs from multiple suppliers. It has been standard practice in BRCP determinations to use the lowest cost supplier for the relevant benchmark technology, and should continue to be so. The rules require the BRCPs to be based on the technology which is expected to be able to provide (Peak or Flexible) Capacity at the “**lowest annual capital cost**” (emphasis added).

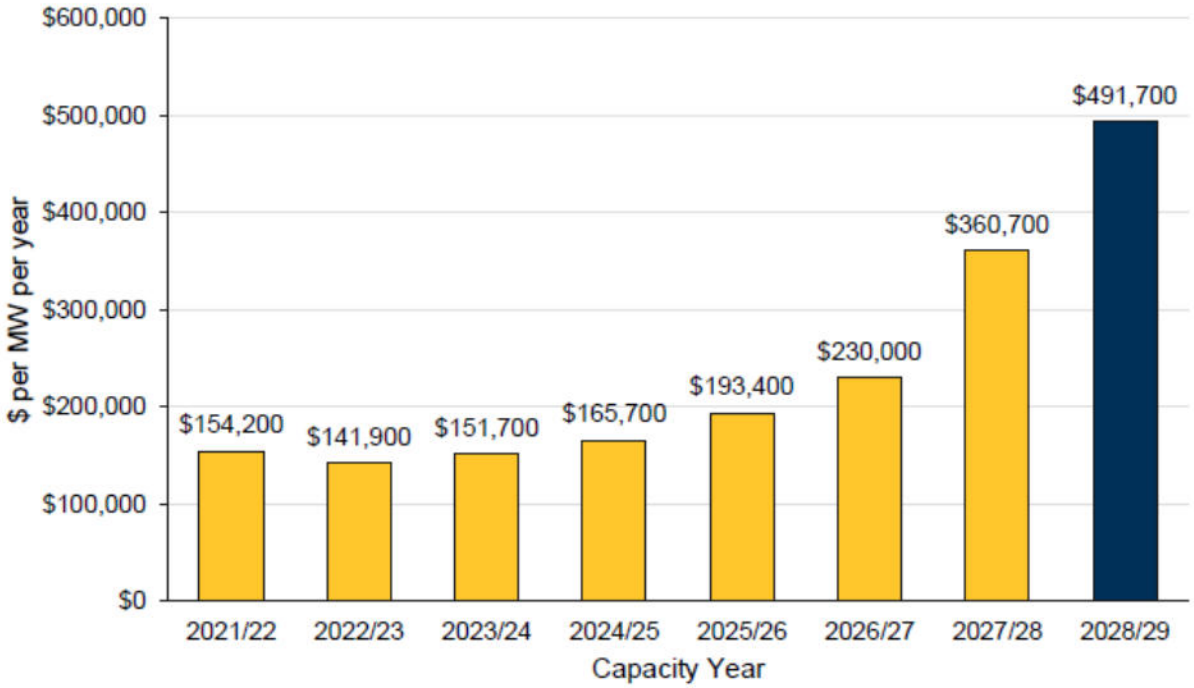
3. Question whether the estimated costs on which the draft BRCP are based have been adequately sense-checked against other sources by the ERA, as they do not seem reasonable. We note that overall battery costs have fallen rapidly, reportedly by as much as 60% in some instances. This makes us question whether the proposed 36 percent increase is reasonable and in-line with real-world costs.

4. Are concerned that the estimate's cost accuracy class (+100% to -50%) allows estimates to be up to 100% above actual costs. We do not think such wide margins are reasonable, and question to what extent such margins are necessary at all.

This Draft Determination

The Economic Regulation Authority of WA (ERA) has issued a draft 2026 determination of the BRCPs for the 2028/29 WEM capacity year of $491,700 per Megawatt (MW) per year for both the Peak and Flexible BRCPs.[1] This is 36 per cent higher than the 2025 BRCPs of $360,700 per MW per year which were also significantly higher than BRCPs have been since market start (see the following chart which shows the increases since 2021/22).

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



Source: ERA draft determination report, page 5.

This extraordinary escalation in the BRCPs raises serious concerns for energy consumers because higher wholesale electricity prices mean higher retail electricity costs, particularly for businesses who are exposed to unregulated prices.

We note that the BRCP Procedure requires the ERA to determine the BRCPs to reflect the earlier determination by the Coordinator of Energy to increase the energy storage capacity of the Flexible and Peak Benchmark Capacity Providers from an 800 MWh, 4-hour BESS to a

[1] 2026 Benchmark Reserve Capacity Prices for the 2028/29 capacity year draft determination

1200 MWh, 6-hour BESS (a 50% increase in BESS energy storage capacity), with a corresponding increase in land requirement.

This 50% increase in energy storage capacity is the dominant reason for the 36 percent increase of the draft BRCPs from the 2027/28 BRCPs (based on the same benchmark battery technology but with lower specified energy storage capacity - 800 MWh).

However overall battery costs have been reported by the CSIRO and others to be falling even more than 36 percent, so we question whether the 36 percent increase proposed is reasonable.[2, 3, 4]

Have the estimated costs been sense-checked against other sources by the ERA, and are they reasonable?

In December 2025 the ERA consulted on its draft BRCP Procedure, and ECP members made a submission.[5] We commented as follows on GHD's proposal to update its cost estimate accuracy class, from +/-50% in its previous report (last year), to AACE Class 5 (+100% / -50%) for this current estimate:

> "It is concerning that this would allow GHD's new cost estimate to be up to 100% higher than actual costs. We ask the ERA to consider whether this is reasonable, and suggest that GHD's cost estimate accuracy class should be revisited to avoid the possibility of the estimate being so much higher than likely actual costs".

We ask the ERA to examine whether the estimated capital costs provided by GHD are as credible as they could be under the current circumstances, and have been adequately compared to other cost estimate sources - such as the CSIRO's GenCost cost estimates, for example - to determine their reasonableness especially when battery costs have been reported by others to be falling so much.

We note that GHD in its latest report on the cost of battery modules/enclosures (section 3.2.1) states[6]:

> *"Based on the obtained costing information from OEM supplier engagement, an average cost was derived. Since it was obtained directly from OEMs, an additional cost for Contractor's overheads (25%) and Contractor's margin (12%) are included in the full cost estimates".*

Similarly for power conversion system (PCS) costs (section 3.2.2) GHD states:

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[2] CSIRO Gencost website
[3] Renew Economy article: "Battery prices plunge 60 pct in two years, …"
[4] Renew Economy article: "NSW awards contracts to six huge 8-hour battery projects, …". Quotes total installed battery prices around one-third of the draft BRCP.
[5] ECP submission on ERA draft BRCP Procedure, 11 December, 2025
[6] GHD report: Benchmark Reserve Capacity Price costs 2028/29 Capacity Year, 28 January 2026

> *"Based on OEM supplier engagement, an average cost was derived. Since it was obtained directly from OEMs, an additional cost for the Contractor's overheads (25%) and the Contractor's margin (12%) were included".*

Given that most BESS systems are now modular and evidence has shown that many battery projects are being delivered on time and under budget, we question if these overheads and margins are necessary and reasonable. For instance, a good example of how the industry is going more modular to reduce construction costs can be seen in Tesla announcements:

> "Tesla announced its new integrated 20MWh battery energy storage system (BESS) solution, the Tesla Megablock, on 8 September in Las Vegas, US.
>
> Megablock is a pre-engineered BESS solution combining four Tesla Megapacks, a transformer and switchgear.
>
> According to Tesla, Megablock is designed for a capacity of 20MWh, with a 25-year lifespan and 91% round-trip efficiency at medium voltage.
>
> The company also claims a 23% faster install time and up to 40% lower construction costs".[7]

We are not implying that Tesla Megablocks are the most appropriate batteries to base cost estimates on, but provide this example to show that there is serious competitive pressure and strong effort within the industry to reduce overall costs by reducing onsite work and risks.

84% Power Conversion System cost increase

The ERA's draft determination report includes the following tables 1 and 5:

[7] Source: Energy Storage News, 9 September 2025

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

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.

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.

Although power conversion system (inverter) capital costs only make up 7% of the total estimated capital costs (Table 1), their estimated costs - based on lower-cost grid-following inverters (rather than grid-forming inverters) - have still increased by 84% from last year's BRCP (Table 5).

GHD's report (section 3.2.2) gives reasons for the estimate's large increase but, as noted by the ERA, some of the functionality included in GHD's estimate was for unnecessary functions (e.g. black start, synthetic inertia and fast frequency response) associated with grid-forming inverters and is not necessary to be able to provide (Peak or Flexible) Capacity at the "lowest annual capital cost".

Given that the total power capacity rating (200 MW) of the BESS has remained the same as for the last BRCPs determination, the capacity of inverters (PCS) required has not changed even though the required MWh energy storage capacity (actual battery module capacity) has increased 50%.

We therefore question whether the 84% increase in PCS estimated costs is warranted.

Weighted Average Cost of Capital (WACC) risk premium

The draft 2026 BRCP Weighted Average Cost of Capital (WACC) includes a 5.8% Market risk premium. ECP members question whether the guaranteed payment stream from the Reserve Capacity Mechanism should rather result in a lower risk premium.

A BESS that provides good value in terms of capital and O&M costs should be used as the basis for the BRCP rather than averaging OEM costs from multiple suppliers

The Coordinator of Energy's September 2025 determination states: "The ESM Rules define the Benchmark Capacity Provider for Peak Capacity or Flexible Capacity as a notional new entrant Facility based on the technology which is expected to be able to provide (Peak or Flexible) Capacity **at the lowest annual capital cost**" (emphasis added).[8]

We therefore consider that it is more appropriate to use the lowest cost (that delivers a quality product) Original Equipment Manufacturer (OEM) solution rather than an average of the costs provided by OEMs as GHD has done. Indeed, it has been standard practice to use the lowest-cost solution with previous benchmark technologies.

For instance, in previous BRCP determinations, the ERA has used the Siemens SGT5-2000E gas turbine as the basis for the BRCP determination, as it:

[8] 2025 Review of Benchmark Capacity Providers: Coordinator of Energy Determination, 30 September 2025, section 4.1

> *"[M]ost closely aligns with the power station requirements in the market procedure, including the output requirement at the specified site conditions, and provides good value in terms of capital and O&M costs."*[9]

This model of turbine has been used instead of the average costs of gas turbines provided by a range of OEM's. The ECP sees no reason for the ERA and its consultants to divert away from this standard practice just because the reference technology has changed. Using a single BESS would also help address the cost accuracy issues, as the ERA (or its consultant's) should be able to obtain more accurate costs for a single system, rather than average a range of system costs which may include some expensive outliers.

Fixed Capital Charge proposed by the Coordinator of Energy

The Western Australian Department of Energy and Economic Diversification (DEED) has published a consultation proposal to introduce a Fixed Capital Charge (FCC) for project proponents to contribute to the cost of new shared network transmission assets required to be constructed for the projects to connect to.[10]

The FCC consultation paper states that: "If the FCC is adopted, the ERA would be expected to account for the FCC in determining the BRCP".

The FCC will transfer shared transmission costs, normally covered by network tariffs, into Wholesale Electricity Market (WEM) reserve capacity costs by being included in the BRCP.

The ERA has included the proposed FCC in its draft BRCP determination, adding its $20 million cost into the total capital cost estimation ($624 million).

We are unsure whether including this cost proposed by the Coordinator of Energy is consistent with the long term interest of consumers as required by the State Electricity Objective (SEO).[11] It affects the capacity payments to all applicable generators, not just new entrants. It will increase total WEM capacity market costs more than necessary to provide an adequate revenue stream to new entrant generators only, which we acknowledge are needed.

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[9] See page 12 of the 2024 Benchmark Reserve Capacity Price for the 2026/27 capacity year – Final determination.

[10] Fixed Capital Charge consultation

[11] The State electricity objective is to promote efficient investment in, and efficient operation and use of, electricity services for the long-term interests of consumers of electricity in relation to:

- the quality, safety, security and reliability of supply of electricity; and
- the price of electricity; and
- the environment, including reducing greenhouse gas emissions.

Final comments

We ask the ERA to consider the above matters, and avoid any unnecessary inclusions that would increase costs to consumers. We note that the ERA has proposed to remove the contingency allowance that was in the 2025 determination, and to base the cost estimates on 'grid-following' BESS instead of the more expensive 'grid-forming' BESS. We support both of these proposals.

The total WEM capacity cost is significantly affected by the BRCP because it affects the capacity credit price paid to all generators, other than generators covered by the 'transitional' RCP mechanism for the next five years. The ERA should examine what steps it can take to ensure that customers do not pay an excessive cost for any part of the spectrum of capacity providers. The protection of customers for this essential, regulated service should be a primary consideration, and given equal weight to principles that might apply to regulation of fully competitive markets.

The BRCP has a direct impact on total WEM costs and, by extension, consumer prices (especially for contestable customers). It is therefore critical to consider these revenues when assessing cost recovery, to ensure alignment with the State Electricity Objective.

Thank you for considering this submission, and please do not hesitate to contact us to discuss it further.