Minutes

Meeting Title:	BRCP WEM Procedure Review Working Group	
Meeting Number:	2023_12_18	
Date & Time:	Monday, 18 December 2023 2:00PM-3:00PM (AWST)	
Location:	Online, via TEAMS	
Attendees:	Matt Shahnazari	Economic Regulation Authority (Working Group Chair)
	Wesley Medrana	Synergy
	Oscar Carlberg	Alinta Energy
	Hari Sridhar	Transalta Corporation
	Tessa Liddelow	Shell Energy
	Gerry Devereux	Australian Energy Market Operator
	Vincent Chye	AGL/Perth Energy
	Dimitri Lorenzo	Bluewaters Power
	Noel Schubert	WA Expert Consumer Panel
	Jake Flynn	Collgar Renewables
	Dora Guzeleva	Energy Policy WA
	Lipakshi Dhar	Economic Regulation Authority
	Richard Cheng	Economic Regulation Authority
	Jesse Barker	Economic Regulation Authority
	Lachlan Bunyan	Economic Regulation Authority
Apologies:	Ben Tan	Tesla Holdings
DMS:	D271855	

1. Welcome

The Working Group Chair, Shahnazari, opened the meeting at 2:00pm.

- Working Group Members did not raise any conflicts of interest or competition law issues.
- The Chair noted the attendance as listed above.
- The Chair explained that the Market Advisory Committee established the Working Group to advise the Economic Regulation Authority (ERA) on its review of the Wholesale Electricity Market (WEM) Procedure documenting how to determine the Benchmark Reserve Capacity Price (BRCP).
- The Chair emphasised that the ERA's Governing Body is the ultimate decision maker on the review of the BRCP Procedure. The Working Group has an advisory role.

2. Project scope and timeline

Dhar provided an overview of the BRCP mechanism and why the ERA has commenced a review of the BRCP Procedure following recent changes to the WEM Rules. This included:

- The introduction of Flexible Capacity, which will require the ERA to determine two BRCPs each year (a Peak BRCP and a Flexible BRCP).
- The Coordinator of Energy's determination of the Benchmark Capacity Providers.

Dhar provided a timeline of the ERA's review, with an expected completion date of 1 July 2024.

Schubert queried whether the Coordinator of Energy's determination states if the location of the Benchmark Capacity Providers are based on a greenfield site or existing site. Guzeleva stated that the Benchmark Capacity Provider is assumed to be in an uncongested network location, near either Kwinana or Pinjar, connected via a 330 kV line to the network.

3. Topics for BRCP Procedure review

Dhar provided an overview of topics the ERA may consider in its review of the BRCP Procedure. Dhar noted that the purpose of this meeting was to summarise the topics, and future Working Group meetings will focus on specific topics for discussion and feedback from Members.

3.1 Aim of the BRCP Procedure

Dhar outlined the following aims and objective of the review:

- Ensure that the Coordinator of Energy's determination on the Benchmark Capacity Providers is reflected in the BRCP Procedure.
- The Procedure provides enough guidance to the ERA for undertaking a technical bottom-up cost evaluation to determine the Peak BRCP and Flexible BRCP.
- Support the Reserve Capacity Mechanism to provide appropriate investment signals to attract capacity in the South West Interconnected System (SWIS).
- Provide certainty to industry on how the ERA will determine the Peak BRCP and Flexible BRCP.
- Balance providing certainty to investors and Market Participants whilst be flexible enough to adapt to changing market conditions.

Dhar sought feedback on the level of granularity that Market Participants would expect in the updated BRCP Procedure. Carlberg noted that the level of granularity will depend on the different parts of Procedure and comments will be provided when each part is discussed.

3.2 Implications of Coordinator's determination

Dhar outlined key points from the Coordinator of Energy's determination on the Benchmark Capacity Providers:

- Both Benchmark Capacity Providers (for peak and flexible capacity) are based on a 200MW / 800MWh Lithium-ion battery energy storage system (that is a 200 MW capacity for 4 hours).

- The location of these Benchmark Capacity Providers is in an uncongested network location, near either Kwinana or Pinjar, connected via 330 kV line to the network.
- Assumes a gross Cost of New Entry (CONE) approach to determining the Flexible BRCP and Peak BRCP.[1]

3.3 Method to estimate the cost of the Benchmark Capacity Providers

Dhar explained the BRCP Procedure must provide guidance on determining the BRCPs on a dollar/megawatt (of Capacity Credit) per year basis. This requires the BRCP Procedure to document how the underlying components of the Benchmark Capacity Providers' annualised capital cost and annualised fixed operation and maintenance (O&M) costs are determined.

Dhar outlined the Working Group's scope to consider appropriate methods for estimating these costs for a BESS, whether there are any differences for calculating these costs between Peak and Flexible Benchmark Capacity Providers, and whether the current method of cost escalation is appropriate.

Carlberg and Schubert supported the ERA engaging a consultant that specialises in grid-scale batteries to support this review, given the complexities of BESS technologies.

3.4 Cost recovery period

Dhar explained the process of annualising capital and fixed O&M costs, which requires an estimate of an appropriate cost recovery period to annualise costs over. Dhar sought feedback on an appropriate recovery period.

- Carlberg commented that investors would expend significant capital outlay, given the size of the BESS (200MW / 800MWh), and are likely to seek a cost recovery period of ten years or less. A longer period would likely make the cost of borrowing too expensive and the project less viable.
- Schubert added that a shorter recovery period would result in a larger BRCP, when compared to a longer recovery period, which would flow through to increased consumer costs.

Guzleva queried how the change in the technology of the Benchmark Capacity Provider – from an open cycle gas turbine (OCGT) to a BESS – drives the difference in cost recovery period for the BRCP.

- Carlberg explained that the size of capital outlay for a BESS relative to an OCGT, and the associated borrowing costs for a much larger capital outlay, is a major driver.
- The Chair stated that BESS are not a mature technology and that there is greater uncertainty relative to a more mature technology (such as an OCGT). This uncertainty must be considered in developing the costs of the Benchmark Capacity Providers.

[1] A gross CONE approach assumes little revenue is received from energy market operations, with most of the Benchmark Capacity Provider's revenue coming from RCM capacity payments.

3.5 Discount rate

Cheng provided an overview of the current method in the BRCP Procedure that uses a weighted average cost of capital (WACC) as the discount rate to annualise the fixed O&M cost and capital expenditure components of the BRCP. Cheng sought feedback on the appropriateness of the WACC.

Cheng also explained how advancements in technology may lower the cost of BESS in the future, which can result in lower BRCPs determined in the future. This may affect future BESS investment decisions. Cheng sought feedback on a 'tilted annuity' approach to address this issue.

The Chair noted that using a nominal WACC in the annualisation process inherently assumes that the cost remains constant in real terms. However, given expectations of falling battery costs, a nominal WACC may not adequately compensate investors and thus not provide sufficient investment signals to increase capacity in the SWIS.

Chye suggested the Working Group consider the appropriateness of a fixed price period, given that projects are financed at the point of the project being approved. Chye further explained that one of the challenges with investing in long term assets is the misalignment between the project investment being financed based on a point-in-time expectation of capital expenditure, while the costs are recovered on a year-to-year fluctuating BRCP which is based on market prices that have changed since the BRCP was determined. Chye noted this can lead to drastically different risk profiles, cost of capital and hurdles in approving project finances.

- Schubert asked whether a fixed price period – where the BRCP is fixed at a certain price for a certain number of years – would be appropriate to reduce uncertainty for investors. Chye added that a fixed period changes the uncertainty faced by investors.
- The Chair queried how the BRCP can account for uncertainty and if a fixed price period is appropriate, and whether it will be applicable to all investors.

Guzleva reiterated her query regarding the difference between investing in the current OCGT technology and the new BESS technology.

- Chye agreed with earlier comments that the capital outlay of a BESS relative to the current OCGT is a significant factor. Chye noted the existing BRCP Procedure has a misalignment between typical project financing and bankability considerations, given the fixed rate period of five years and the risk profiles of investing in BESS. Chye considered this issue is more pertinent with the change in technology, given the cost per megawatt for a BESS is significantly higher while receiving the same capacity credit.

Devereux asked if there is a scenario where the BRCP Procedure includes a specific discount rate for a fixed price period, and a different discount rate for those using a BRCP that can change year to year.

3.6 Transmission costs

Cheng provided an overview of the current process of determining transmission costs in the BRCP Procedure, which relies on Western Power to use actual costs or a prescribed estimation process in lieu of actual costs. Cheng sought feedback on an appropriate method for determining transmission costs.

- Carlberg stated that Western Power's transmission cost forecasts would be appropriate given their significant experience with transmission in the SWIS.
- Schubert agreed with Mr Carlberg's comments and that actual costs can be appropriate, particularly for greenfield sites.

3.7 Network Access Quantity (NAQ)

Cheng stated that the ERA Secretariat's initial analysis indicates there will be no effect of the NAQ on the expected capacity credits assigned to the Benchmark Capacity Provider, and is therefore unlikely to be required in the BRCP Procedure.

- Guzleva, Carlberg and Devereaux agreed that NAQ would be difficult to apply in determining the BRCP, particularly when the network is unconstrained. It is highly likely that the new entrants would locate their capacity provider in an unconstrained network location.

4. Next steps

There were no additional questions or comments.

4.1 Date of next meeting

The Chair noted the next meeting date will be provided in early 2024. Future meetings will be focused on specific topics for feedback.

5. General business

No general business was discussed.

6. Meeting closed at 3:00PM