WHOLESALE ELECTRICITY MARKET

Submission to Procedure Change Proposal

EEPC_2024_01
Benchmark Reserve Capacity Price

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Date submitted:	6 May 2024

Submission

Clause 2.10.7 of the Wholesale Electricity Market Rules provides that any person may make a submission for a Procedure Change Proposal (including proposals developed by AEMO, the Economic Regulation Authority, the Coordinator of Energy or a Network Operator) by completing this Procedure Change Submission form.

Submissions should be provided by email to the nominated contact in the call for submissions published with the Procedure Change Proposal.

Please provide your views on the Procedure Change Proposal, including any objections or suggested revisions

While we support most elements of the Procedure Change Proposal, we strongly object to tilting the annuity. Tilting the annuity transfers significant extra capacity costs to consumers in the early years and locks them in if the tilt is fixed in the Procedure.

The annuity tilting proposal is based on the assumptions that:

- Technological advancements and manufacturing economies of scale will decrease Battery Energy Storage System (BESS) capital costs for some number of years to come, and
- If the Benchmark Reserve Capacity Price (BRCP) falls along with the decrease in capital costs, this will discourage investment in capacity because investors will expect they will not be able to recover their capital costs.

Allowing a higher BRCP earlier (relative to a flat annuity) is intended to enable investors to earn more revenues sooner, providing more certainty over capital cost recovery.

We question these assumptions for the following reasons.

Overall BESS capital costs might not decline

The paper assumes that the overall capital costs of BESS will decline by 4.4 per cent per year, because 55 per cent of the capital costs will decline by 8 per cent per year. This assumption does not consider the effect on future BRCPs of *increases* in the other elements of capital cost, such as transmission connection costs, land costs, installation labour costs, regulatory approvals costs and project development costs. It is quite possible that increases in these costs could neutralise, or indeed outweigh, the reduction in the other costs.

Further, world-wide demand for BESS could be so high relative to manufacturing supply capability in future, noting critical minerals supply concerns, that demand could keep prices as high as they are already for some time.

Applying a tilted annuity to a capital cost base that is stable or which increases over time would result in investors being substantially over-compensated relative to the cost of their initial investment.

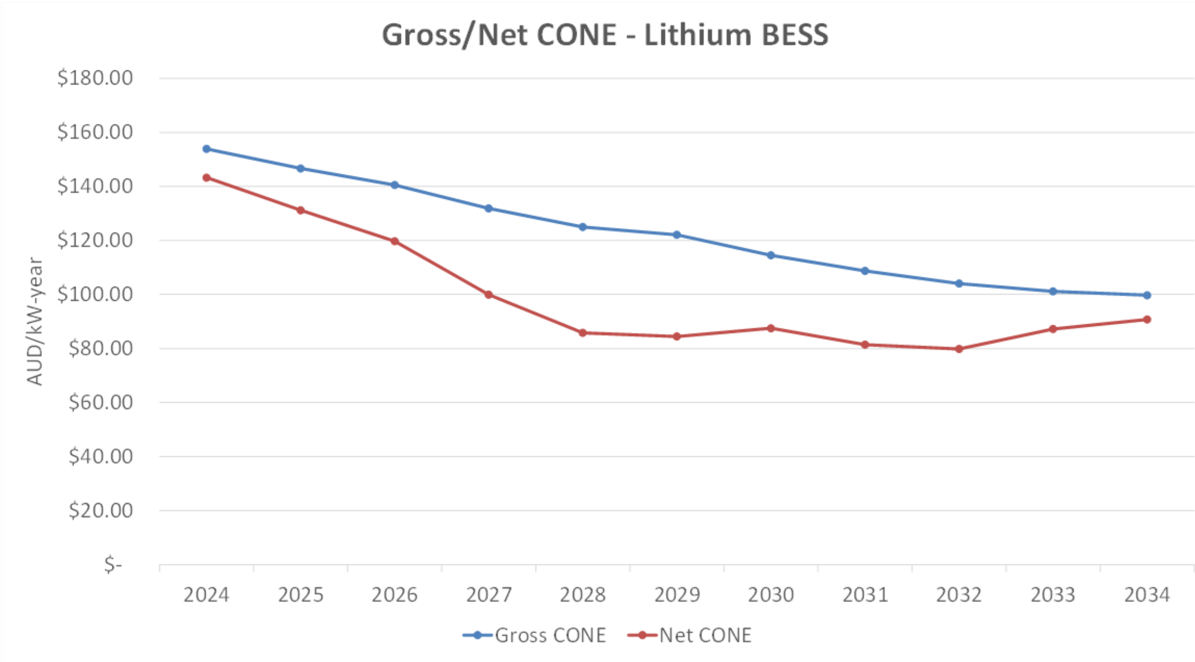
BESS facilities will have, for a period of time, additional sources of revenue

The BRCP is to be determined on a Gross Cost of New Entry basis, meaning the proposed BRCP determination procedure does not deduct the expected contribution to capital costs of revenues earned from the Benchmark Capacity Provider’s participation in the Real-Time Market or other sources, from the capital costs.

In practice, capacity providers’ capital costs are recovered via revenues earned from both capacity and Real-Time Market participation. BESS facilities are very likely to earn significant extra revenue from arbitrage, via their participation in the Real-Time Market, because they will be able to charge when Wholesale Electricity Market prices are low and discharge when prices are higher during the evening peaks. They could also earn additional revenue from the provision of Essential System Services, bi-lateral contracts and/or Non-Co-optimised Essential System Services.

As shown in the chart below, this extra revenue is likely to remain available to BESS - and indeed be highest - over much the same early years as when the proposed annuity tilt leads to higher revenues than a constant annuity would (even if the revenues do decrease in the future). For as long as it is available, the additional revenue will help to pay for BESS capital costs.

Chart 1:



Source: EPWA BRCP Reference Technology Review Consultation Paper, 2 November 2023, Figure 7, Page 26.

Whilst the proposed BRCP procedure will not deduct the additional revenue in determining the BRCP, in formulating the BRCP procedure the additional revenues that will be earned should be taken into account in deciding the need for an annuity tilt at all. The additional revenues effectively offset the need for the annuity tilt, because they mean that even if the BRCP were to fall over time, it does not directly follow that investors will be unable to recover their capital costs, nor that they will *expect* not to be able to recover their capital costs.

There are other mechanisms aimed at providing certainty over capital cost recovery

There are already other mechanisms aimed at dealing with the issue the annuity tilt is seeking to address.

For example, the WEM Investment Certainty Review underway at present aims to provide investment certainty to facilities that are needed, including BESS.

In addition, the Commonwealth's Capacity Investment Scheme (CIS) will provide revenue underwriting for successful CIS tender projects, with an agreed revenue 'floor' and 'ceiling'. The aim of the scheme is to provide a long-term revenue safety-net that decreases financial risks for investors and encourages more investment.

While not all projects will be successful in the CIS tender process, the Procedure Change Proposal should take the implications of this (and other) mechanism(s) into account when considering the need for tilting the annuity.

Other issues

In addition to our concerns about the assumptions on which tilting the annuity is based, we consider that aspects of the annuity tilt proposal seem overly weighted towards shifting the risk away from investors and on to consumers. In particular, the Procedure Change Proposal:

- Suggests it will transition to a flat annuity "when costs settle". This could allow providers who invested during the early stages of the tilted annuity to over-recover their capital costs, particularly if costs settle sooner and at a higher level than assumed when initially calculating the tilt. Put another way, changing the tilt throughout the annuity period would mean the annuity no longer provides a Net present value neutral outcome.

- Uses the mean of a selection of BESS technology related capital cost decline forecasts to calculate the tilt, when the spread of the data it draws upon suggests either using the median, or excluding the outlier forecast, would be more appropriate, and would lead to a lesser tilt and smaller increase in the BRCP.

We also note that the indicated 24 per cent increase in the BRCP in the early years resulting from the 1.24 annuity tilt factor will increase the cost of *all* existing and new accredited capacity receiving the variable Reserve Capacity Price (as distinct from the transitional prices with their floor and ceiling), irrespective of their technology. This includes projects using technologies whose capital costs are relatively stable and unlikely to decline materially in future (e.g. open cycle gas turbines running on renewable fuel). Some of these other more mature technologies do not need higher capacity credit prices to be economical, and so the annuity tilt will cause unnecessarily higher costs to consumers if these facilities exist already or are built and receive the higher reserve capacity prices resulting from adoption of the tilt.

Further, due to the current shortage of capacity in the WEM, demand growth and the announced coal-fired power station retirement schedule, together with the proposed new capacity price curves, we expect to see higher reserve capacity prices for some time driven by higher BRCP multipliers of up to 1.5 for peak capacity and 1.6 for flexible capacity. This further reduces the likelihood investors won't be able to recover capital costs, and so reduces the need for tilting the annuity.

Ultimately, our view is that the Procedure Change Proposal is overestimating the risk of providers not being able to recover their capital costs, with consumers in turn bearing a higher than necessary overall cost of being supplied electricity. It is questionable whether the role of the BRCP Procedure should be to provide so much certainty to BESS investors that an annuity tilt would do, at the expense of consumers, in light of the other measures providing more investment certainty and the significant flow-on effects of an annuity tilt.

Given the uncertainty over how *total* BESS capital costs will change over time and by how much BESS technology related capital costs will decline, and that capacity providers will earn revenues from other sources, we suggest the approach to the annuity should be the same as in the current BRCP procedure.

Please provide an assessment whether the Procedure Change Proposal is consistent with the Market Objectives and the Wholesale Electricity Market Rules.

Our view is that the proposal to adopt a tilted annuity is inconsistent with the objective of minimising the long-term cost of electricity supplied to customers from the SWIS, for the reasons set out above. The ECP considers that the Procedure Change Proposal has not given this aspect of the Market Objectives sufficient consideration and lacks discussion about the implications of the proposed tilt for the long-term cost of electricity supplied to consumers.

Please indicate if the Procedure Change Proposal will have any implications for your organisation (for example changes to your IT or business systems) and any costs involved in implementing these changes.

N/A

Please indicate the time required for your organisation to implement the changes, should they be accepted as proposed.

N/A