Thursday, 30 November 2023

Jai Thomas
Coordinator of Energy Policy
Energy Policy WA

Dear Jai,

The Clean Energy Council (CEC) is the peak body for the clean energy industry in Australia, representing over 1,000 of the leading businesses operating in renewable energy, energy storage, and renewable hydrogen. The CEC is committed to accelerating the decarbonisation of Australia's energy systems as rapidly as possible while maintaining a secure and reliable supply of electricity for customers.

We welcome the opportunity to comment on the review of the Benchmark Reserve Capacity Price (BRCP) reference technologies and provide our responses to the consultation paper's three proposals below.

PROPOSAL A

POSITION: CEC agrees with the proposed reference technology for the Peak Capacity product and the proposed reference technology for the Flexible Capacity product.

Given the technical needs for Peak and Flexible capacity products in the WEM, and the current capex and opex for energy storage systems, we support the choice of Lithium BESS rated at 200MW/800MWh connected at 330 kV as the Peak Capacity product and the Flexible Capacity product in the current review. However, we note that Lithium BESS are not expected to have a lifetime of 25 years. Vanadium based BESS are much more likely to have a longer lifespan as they can ramp with minimal degradation and no self-discharge when idle. We do not expect for vanadium-based BESS to be the benchmark technology with changes to asset lifespan mainly because the methodology is set to choose the lowest cost technology. The high capital cost of vanadium-based BESS is the main barrier to wide adoption at this time.

Globally, in the NEM, and in the WEM lithium BESS presently represent the technology of choice for flexible energy and ancillary services such as frequency control, peak supply, and flexible capacity given current lifetime costs. We support the approach of considering currently available and proven technologies within a framework of performance criteria, including minimising emissions of greenhouse gases (GHGs) and other pollutants in support of the lowest long-term cost to consumers. We find that Energy Policy WA's methodology of analysing peak and flex services requirements, technology costs, economic life, and emissions costs over the lifetime of the asset to be appropriate for determining the proposed new entrant technologies for Peak and Flexible Capacity products.

We also agree that proponents are unlikely to build any new diesel-fuelled gas turbine assets given the imminent implementation of binding emissions limits. At the same time, Lithium BESS is not constrained by major infrastructure unlike gas. They can be built quickly, anywhere and fit for purpose. Investors simply will not underwrite projects with a low probability of adequate cash flows.

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PROPOSAL B

POSITION: The CEC suggests that the MAC and the Coordinator consider establishing a set of criteria that could trigger an early review of the reference technology.

The CEC considers that investor certainty and minimising cost of new entrants both support efficient cost outcomes. Striking a balance between the two can further support cost efficiency. To this end, the MAC and the Coordinator may consider the effectiveness and efficiency of annually reviewing available technologies in the market against a set of criteria that would indicate whether an earlier full review of the BRCP reference technologies are warranted.

While the cost of Lithium BESS systems has rapidly decreased in recent years, the current trend suggests a slowing, especially compared to rival technologies such as vanadium BESS and flow batteries. Several technologies are showing rapid decreases that suggest they may soon present superior performance and value. For example, it appears possible that vanadium-based BESS could become cost competitive in the near future. Given these rapid changes, we consider that having the option for a more frequent review of the reference technology will support ensuring appropriate technologies to meet the Peak and Flexible Capacity requirements of the WEM are procured through an efficient way, consequently supporting the lowest long-term cost for consumers.

Done well, monitoring the market to consider if an earlier review is warranted could even allow for the regularly scheduled full reviews to be set to a slightly slower tempo – perhaps every four or five years. That could also reduce administrative costs and burdens. It would be important, of course, to establish such triggering criteria in consultation with industry and other stakeholders for transparency and to ensure they support cost efficiency and decarbonisation goals.

PROPOSAL C

POSITION: The CEC agrees with retaining a gross Cost of New Entry (CONE) approach to BRCP determination.

The CEC is sensitive to the need to attract significant levels of private investment to achieve WA's ambitious goals for decarbonising the WEM. Investors always seek as high a level of certainty as they can find for projects. At present, investors must consider the global landscape of investment opportunities when selecting projects. The CONE approach is consistent with supporting a higher level of predictable investment certainty, which supports market efficiency and thus ultimately lower costs for consumers over the long run.

As always, the CEC will work with Energy Policy WA to support the rapid transformation of the WEM whilst maintaining security and reliability and welcomes further engagement on WEM reform and transformation. Further queries can be directed to Paul Beaton at the CEC on pbeaton@cleanenergycouncil.org.au.

Kind regards,

Christiaan Zuur
Director, Energy Transformation