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Mr Matthew Martin
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Department of Treasury

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Dear Mr Martin

IMPROVING RESERVE CAPACITY PRICING SIGNALS IN THE WHOLESALE ELECTRICITY MARKET

The Australian Energy Market Operator (AEMO) welcomes the opportunity to provide this submission in response to the consultation paper, *Improving Reserve Capacity pricing signals – alternative capacity pricing options*, published by the Public Utilities Office (PUO).

This submission focuses on the purpose of the Reserve Capacity Mechanism (RCM), the definition of capacity and the trade-offs inherent in the design of any market process. AEMO considers it is critical that these key concepts are well understood when examining changes to the RCM.

Purpose of the RCM

The primary purpose of the RCM is to ensure there is sufficient generation and demand side management (DSM) capacity to deliver electricity for consumers to the defined reliability standard. It does this by setting a Reserve Capacity Requirement (RCR) for each year, providing a revenue stream to generation and DSM capacity providers. The RCM also includes a backstop procurement process (Supplementary Reserve Capacity) to address a forecast capacity shortfall.

Capacity revenue is one of several possible revenue streams that may be available to a capacity provider in the Wholesale Electricity Market (WEM), which may also include revenue from the sale of energy, ancillary services, network support services, Large-scale Generation Certificates and the Tariff Adjustment Payment.¹ It is important to note that all these revenue streams play a role in investment (and retirement) decisions that Market Participants need to make and that the RCM is a part of this mix.

What is the capacity product upon which the RCM is based?

The nature of the capacity product in the WEM can lead to misunderstanding regarding the design of the capacity mechanism. The RCR² requires sufficient capacity to supply a one-in-ten-year demand peak, plus margins for unplanned generation outages and maintenance of system frequency.

¹ The Tariff Adjustment Payment has been paid by the WA Government to Synergy to offset losses that have arisen due to electricity tariffs being below cost-reflective levels.

² The RCR is calculated according to the Planning Criterion in clause 4.5.9 of the WEM Rules.

As a direct result of this stringent reliability requirement, it is expected that the capacity providers with the highest dispatch costs (e.g. diesel peaking generators and DSM) will be dispatched rarely. This does not diminish the value of the capacity that such facilities contribute to satisfying the RCR and supporting power system reliability under uncommon but plausible circumstances.

In the WEM, the capacity product definition is implicit in the approaches to quantifying the capacity contribution of each generation and DSM facility, which underpin the assignment of Capacity Credits and capacity revenue streams. However, the WEM Rules do not provide an explicit definition of the capacity product.

In principle, the quantity of Capacity Credits assigned to a facility should be proportional to the facility's contribution to delivering whole-of-system power system reliability; in other words, the ability of a facility to support additional customer demand. AEMO considers that this provides a workable definition of capacity that can inform and focus further discussions on RCM design.

With the capacity product defined, AEMO supports technology-neutral mechanisms for the procurement and trading of capacity, with price equivalency for supply-side and demand-side capacity resources where they provide equivalent value (according to the agreed capacity product definition). Technology-neutral market mechanisms are proven to be the best way to promote innovation and competition and to minimise long-term costs for consumers.

A clearly defined capacity product will aid policy and rule makers to understand the role that new technologies can play in the RCM, including battery storage which is currently not envisioned in the WEM Rules.

Role of competitive markets and when they should be used

The decision of whether to use a competitive market process in the delivery of a good or service must consider whether such a competitive market will serve the long-term interests of consumers.

AEMO supports the use of competitive markets, however the success of competitive markets can be challenged by inadequate competition, high barriers to entry and paucity of information to enable efficient decision-making of market participants.

When considering the future potential for competition in the RCM, it will be particularly important to consider how the market structure will evolve in the WEM.

Design of market mechanisms requires trade-offs

The consultation paper rightly points out the inherent trade-off between reliability and cost within capacity markets. Reliability standards are typically set at the level where the cost of an additional unit of capacity would exceed the benefit that the unit of capacity has in reducing the risk of involuntary load shedding.

The design of market mechanisms involves many other policy objectives that must be balanced, such as clarity of investment signals, reduced investment risk, low barriers to entry, market power mitigation, clear incentives for desirable behaviour while minimising perverse incentives, information transparency, design simplicity and low administration cost. Many of these objectives have implications for the allocation of risk between suppliers and customers.

When designing the pricing approach in the RCM, it will be important to nominate which objectives are not currently being met, understand the trade-offs against other objectives and analyse the potential impact on customer outcomes.

Due to its pivotal role as the independent market and system operator, AEMO is keen to support the PUO and other stakeholders through the design and implementation of capacity pricing arrangements. If you would like to discuss any matters raised in this submission, please contact Stuart Featham, Manager, WA Market Development, on (08) 9469 9905.

Yours sincerely

A handwritten signature in black ink, appearing to read "C Parrotte". The signature is written in a cursive, flowing style.

Cameron Parrotte
Executive General Manager, Western Australia