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Energy Security Board
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Electronic Submission

Capacity Mechanism High Level Design Paper

Snowy Hydro welcomes the opportunity to comment on matters raised in the Energy Security Board's Capacity Mechanism High Level Design Paper (Design Paper).

Snowy Hydro understands that the Design Paper is intended to explore design decisions for a high level design of a capacity mechanism. In doing so, it is important that the ESB critically evaluates the merits of such a mechanism and whether it promotes the long-term interests of consumers and other stakeholders. Snowy Hydro considers the case for a capacity mechanism has not been made.

A capacity mechanism should not be understood as a new or innovative reform. In policy terms it represents a shift back to greater market intervention and centralised control of the energy market, reducing the role of price signals to incentivise investment decisions. A capacity mechanism improves the certainty of capacity revenues by suppressing competitive pressures that exist in the current energy-only market structure.

The circumstances in which the ESB has proposed a capacity mechanism are similar to other jurisdictions. Policy makers, concerned by decisions of asset owners to close legacy thermal assets, propose a capacity mechanism to keep them open. The ESB may contend that the mechanism is 'not intended' to preserve the life of coal assets but under the ESB's preferred model, that will almost certainly be its effect. It reflects the underlying logic of a capacity mechanism; generators achieve revenue certainty through a guaranteed availability payment, subject only to satisfying availability criteria. It is appealing to owners of coal plants for precisely this reason. Under the ESB's preferred centralised, all-encompassing model in the Design Paper, AEMO would be responsible for procuring most or all reliability certificates and retailers would be obliged to buy them. AEMO would become capacity providers' channel to market and by doing so transfer risk from market participants (under the current energy-only structure) to consumers. This would increase costs for consumers.

A Capacity Mechanism Would Not Have Avoided the Current Crisis

The current energy crisis has been cited by some commentators as a reason to proceed with a capacity mechanism. Its appeal seemingly lies in providing a means to enforce an availability requirement on generators. If only generators could be forced to make

themselves available, the reasoning goes, the challenges currently being experienced in the NEM could have been avoided. While this narrative is appealing, it misunderstands the causes of the current crisis. Notwithstanding significant unplanned outages to coal fired power stations, current volatility and high prices have been mostly caused by shortages of energy, not capacity: low renewable output combined with a global commodity squeeze, exacerbated by weather-related disruption to coal supply. A capacity mechanism would not have ensured a sufficient supply of coal.

Costs of a Capacity Mechanism

In justifying a capacity mechanism, the ESB contends that the current energy only market cannot be relied upon to meet the future capacity needs of NEM and that it could only deliver the required capacity at the expense of high consumer prices. The Design Paper states "high prices are required to elicit market-led investment. However, sustained high wholesale prices lead to consumer cost pressures." In support, the Design Paper references a time series of spot price outcomes in the NEM (Figure 7). This is wrong because capacity investment is driven by capacity revenues, not average spot prices (as depicted by Figure 7 of the paper). The ESB has confused energy with capacity. The price signal for new capacity is volatility, not the level of average prices.

In its draft report for the 2022 Review of the Reliability Standard and Settings, the Reliability Panel canvassed an increase in the market price cap (MPC) to a level in a range from \$20,000/MWh to \$30,000/MWh. It is important to acknowledge that such an increase does not imply higher consumer prices. As stated by the Reliability Panel, "a higher MPC may not necessarily equate to higher consumer costs because the revenue associated with high price periods is still very small when compared to revenues across the rest of the year." In other words, capacity costs account for only a small proportion of energy costs. Furthermore, a capacity mechanism would not avoid consumers paying capacity revenues associated with a higher MPC; it would simply mean those revenues are funded through guaranteed capacity payments rather than scarcity pricing.

The Design Paper states "there are limited opportunities for investors to lock-in long-term revenues" acknowledging that while long-term bilateral hedges exist, they tend to not to extend beyond three years. This is not correct. Snowy Hydro has entered into long-term capacity hedges of up to 15 years. Across the market, power purchase agreements are regularly transacted on tenors of 15-20 years.

Snowy Hydro is unaware of any jurisdiction in which the introduction of a capacity market has reduced energy prices. It is remarkable that the price outcomes of other capacity markets do not appear to have been considered by ESB. The ESB should critically examine the price impact of capacity markets in jurisdictions such as France, the UK and Western Australia.



Wholesale Energy Market

The experience of the Wholesale Energy Market (WEM) in Western Australia is instructive. Reserve Capacity Prices in the WEM have exceeded \$100,000/MW per year for more than a decade.

Historical Reserve Capacity Prices in the WEM¹



Cost aside, a recent analysis by Marsden Jacob Associates found the WEM has experienced a number of other difficulties in procuring an appropriate mix and volume of capacity.² Flexible generators have suffered a lack of revenue sufficiency, ie. missing money.³ The WEM has not encouraged the entry of flexible generation, but rather appears to have propped up existing assets and has not increased competition. Although the report does not recommend the introduction of scarcity pricing, it concedes that “Scarcity pricing may be required in the long term to ensure reliability standards are satisfied with high levels of intermittent capacity and limited energy resources (storage).”⁴ More broadly, the report highlights that a capacity mechanism is not a panacea for concerns about resource adequacy and suffers from the same alleged defects as energy only markets.

¹https://www.aemo.com.au/-/media/files/electricity/wem/reserve_capacity_mechanism/reserve-capacity-price/historical-reserve-capacity-prices.xlsx?la=en

² See Marsden Jacobs Associates, Revenue Adequacy for Generators in the WEM, April 2022 (<https://www.energycouncil.com.au/media/xlab4zma/mja-final-report-generator-revenue-adequacy.pdf>)

³ Ibid, p70

⁴ Ibid, p12

Centralised vs Decentralised Procurement

If a capacity mechanism is adopted, Snowy Hydro considers that a decentralised structure is preferable to centralised procurement through AEMO. Retailers are best placed to determine and manage their own capacity requirements. Full centralised procurement by AEMO will reduce or eliminate the role for bilateral contracting of capacity, which is an important vehicle for allocating capacity. Retaining decentralised procurement and decision making in a capacity mechanism will reduce the loss of efficiency and competitiveness inherent in shifting away from an energy only market. We agree with the ESB's statement that *"On the costs of capacity, centralised models are likely to be weaker than decentralised models. This is because the responsibility for forecasting and procuring the right level of capacity sits with AEMO, which does not bear the costs of either load shedding or over- paying."* In other words, centralised procurement is more expensive because AEMO does not bear the costs of procurement, and faces asymmetric incentives to over-procure capacity.

Market settings in the spot market and the capacity mechanism

Snowy Hydro does not agree that the level of market settings, particularly the MPC, should be reduced under a capacity mechanism. High spot prices play an important role in signalling scarcity. Blunting those price signals will reduce real-time incentives for generation, storage and demand response; this is the issue being experienced in the WEM, which, as mentioned, is experiencing difficulty incentivising the entry of flexible capacity.

Snowy Hydro considers that different price caps for different technology types should be avoided, as they would complicate market clearing and create difficulties for participants with a portfolio of generation assets. It would reduce the benefits associated with owning a diversified generation portfolio, reducing the volume of contracts that could be offered from such portfolios.

Market power mitigation

Snowy Hydro does not consider that the introduction of a capacity mechanism justifies additional market power mitigation measures. Snowy Hydro also disagrees with the assertion that "ownership and control of capacity in the NEM is highly concentrated to a few market participants". Ownership of dispatchable capacity is already becoming less concentrated as coal assets retire and this is set to continue.

Snowy Hydro is not aware of any evidence that a capacity mechanism would increase market power, and in any case, given that a market mechanism increases the regulation of capacity procurement, it should be expected to reduce, not increase, opportunities for the exercise of market power.

Effect on Existing Contracts

Many existing bilateral contracts have contract tenures of 5 -20 years. The introduction of a capacity mechanism is likely to trigger disruption, renegotiation and, if amendments cannot be agreed, termination of those contracts. It is critical that the ESB addresses the risk of contract disruption before finalising a design for a capacity mechanism.



Firm Transmission Access Rights

Snowy Hydro is concerned with the ESB's observation that under its preferred performance obligation model (Model 3), the NEM's lack of firm transmission access rights is a 'weakness', thereby providing a basis on which such rights could be introduced. Transmission access rights have been abandoned in the ESB's Congestion Management Model in the face of industry opposition and it is almost certain there would be similar opposition to their introduction as part of a capacity mechanism. The apparent need for transmission access rights in a capacity mechanism highlights that it is not a suitable reform for the NEM. This should be considered in more detail before a capacity mechanism is progressed further.

Reliability and Emergency Reserve Trader

AEMO's Reliability and Emergency Reserve Trader (RERT) function is an existing quasi-capacity mechanism in the NEM. It has, to date, proven an expensive means of procuring reserve capacity, as much as \$60,000/MWh or four times the MPC. In any case, if a capacity mechanism is introduced, there can be no rationale for the continuing existence of the RERT. Under a capacity mechanism AEMO will determine an enforceable volume required market capacity. In this scenario, RERT would represent an unnecessary and expensive duplication of the broader capacity mechanism, and should be abolished.

Snowy Hydro appreciates the opportunity to comment on the matters raised in the Design Paper.

