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Energy Security Board

Via email to: info@esb.org.au

Pacific Hydro Australia Response to Capacity Mechanism High Level Design Paper

Pacific Hydro Australia thanks the Energy Security Board (“**ESB**”) for the opportunity to make this submission on the Capacity Mechanism High Level Design Paper (“**Design Paper**”).

Founded in 1992, Pacific Hydro Australia is a leading owner, operator and developer of renewable energy assets. It operates a high quality, diversified portfolio of wind, hydro and solar assets with an installed capacity of 665 MW; it also has a development pipeline of substantial projects totaling over 1100 MW of potential capacity, as well as over 300 MW of energy storage solutions.

It also has a wholly-owned electricity retail business, Tango Energy, with approximately 150,000 customers as of June 2022. With a strong reputation for engaging and collaborating with the communities where it operates, Pacific Hydro has a track record of delivering lasting, sustainable benefits. Its operating assets currently abate over one million tonnes of greenhouse gas pollution every year.

We are committed to accelerating the decarbonisation of Australia’s energy system, while maintaining a secure, affordable and reliable supply of electricity for customers. In this submission we provide our views on behalf of both Pacific Hydro Australia and Tango Energy.

General comments

In our previous submissions to the ESB on its Capacity Mechanism Project Initiation Paper^{1,2}, we considered that the merits of the ‘no-change’ scenario from existing arrangements with the financial Retailer Reliability Obligation (“**RRO**”), had not been adequately considered, and that the case for a new capacity market needed to be further refined and explored. We consider that this remains the case.

With the context of the market volatility occurring in H1 2022 and continuing at the time of this submission, we acknowledge that several tools such as the Reliability Emergency Reserve Trader (“**RERT**”), and market suspension, were utilised by AEMO. The mechanisms appear to have performed what they were designed to do, and can serve as an investment signal to developers that further capacity is needed, and encourage developers to create additional investments if supported by a stable investment and policy climate. We suggest that the ESB, together with other regulatory stakeholders, undertake a review of the market suspension and

¹ <https://www.energy.gov.au/government-priorities/energy-ministers/priorities/national-electricity-market-reforms/post-2025-market-design/post-2025-market-design-capacity-mechanism-initiation>

² https://www.energy.gov.au/sites/default/files/2022-02/Pacific%20Hydro_Tango%20Energy%20Response%20to%20Capacity%20Mechanism%20Project%20Initiation%20Paper.pdf

RERT events, and consider the effectiveness of those mechanisms as part of its deliberations on whether to develop a capacity mechanism.

Furthermore we consider that more focus should be put on complementary policies such as transmission access and, where applicable, the Foreign Investment Review Board (“FIRB”) regime. To the former point, we ask the ESB to consider any impacts the capacity mechanism will have on the energy spot price, and whether this overlaps with the transmission access proposals being made by the ESB, in particular the Congestion Management Model (“CMM”)³ proposal.

We further ask the ESB to consider previous political and public aversion to high spot prices, and how this will impact the new market that it intends to create. The fundamental premise of markets is that sufficiently high prices attract investment. However, market intervention by Governments occurs once high spot prices occur, and this has a damaging effect on investment certainty in the long run. It is not clear how creating another market will solve this issue; while the centralised model (Option 2) proposed by the ESB may mitigate the likelihood of intervention better than Options 1A and 1B, ultimately, any increased costs get passed through to consumers if there continues to be an unwillingness to allow adequate price signals to attract investment from the supply side.

Notwithstanding, we appreciate that if the decision to proceed with a capacity market has been made, we would overall be supportive of the ESB’s draft proposal to adopt a centralised model, i.e. Option 2 of the Initiation Paper, and we are pleased that the ESB appears to have taken on stakeholder feedback in that regard. We elaborate on these views and provide further detailed comments on the operation of the centralised model in the remainder of our submission.

Retailer obligations

We understand the ESB wishes to explore potential hybrid models where retailers will take on some responsibility by forecasting their own needs and procuring for them. It is unclear why retailers need to be included in a centralised mechanism. In our opinion, if the intention is for retailers to be included in the model, then a fully decentralised model (Option 1A) would be most appropriate; in our previous submission we stated that the “hybrid” approach (Option 1B) where AEMO forecasts capacity and retailers take on obligations to procure certificates based on a pre-set target would be the most problematic, as it would result in retailers being given a risk they cannot control, and leave little incentive for AEMO to revise forecasts downwards where appropriate⁴.

We understand that one of the key reasons for proposed inclusion of retailers in the framework is to incentivise retailers to use demand response to reduce their load in critical periods. Option 1B would not create any incentives for retailers to undertake activities that would reduce load if there is a pre-set target determined by AEMO, and would defeat the stated purpose of involving retailers in the first place. Demand response and the reduction of load can be achieved by allowing the participation of demand response on the supply side without creating new obligations for regulators and retailers to administer, and would likely be a more efficient and effective manner of encouraging demand side participation while continuing to achieve the stated aims of the capacity mechanism.

³ <https://www.datocms-assets.com/32572/1651648061-20220501-transmission-access-reform-consultation-paper-final.pdf>

⁴ While the Victorian Energy Upgrades (“VEU”) and NSW Energy Savings Scheme (“ESS”) utilise a similar mechanism, we consider that these are not appropriate comparisons due to the very different nature of the supply side.

Our position from our previous paper on the inclusion of retailers in the framework remains unchanged, and we consider that retailers should only be included to the extent that they are able to address risks which are within their control, and not be included for the sake of doing so. We also support the removal of the Retailer Reliability Obligation (“RRO”) should a capacity mechanism be adopted, and consider that the RRO is redundant in light of a capacity mechanism.

De-rating periods and reliability event model considerations (questions 5 to 8)

We agree with the ESB that a model based on the occurrence of the reliability event rather than based on predetermined time periods is more likely to reflect the changing nature of reliability and result in a more appropriate de-rating model. While a predefined time based performance window determined by AEMO is attractive as a simple and straightforward approach, the setting of the window must be subject to continual review to allow it to adapt to changing conditions. We understand that there are several balances to be struck when determining an appropriate methodology for de-rating. Firstly, there is a balance to be struck between using historical data and forecasts, and secondly, there is a further balance to be struck as to the level of granularity and cost/burden of information provision to apply to de-rating factors for, i.e., at a technology level, station, or unit level.

We suggest further work by the ESB to investigate integrating the Medium Term and Short Term Projected Assessment of System Adequacy (“MT PASA” and “ST PASA”) information provision process with the de-rating process. Information currently provided by generators in the MT PASA and ST PASA processes may provide a readily available source to assess availability during specific periods, with minor adjustments to the information required where necessary. The information provided to PASA is a forecast which reflects a generator’s forecast of its availability at the point of time of providing the information. Looking backward at PASA data provided historically and comparing this to actuals can be a potentially cost-effective way to determine de-rating at a suitably granular level.

We further suggest considering a nameplate capacity MW threshold for the level of granularity to assess de-rating. This information can be provided during the registration process, with an exceptions process handled through AEMO to adjust for the de-rating factor. Where there are appropriate reasons for departure from using ST/MT PASA information for de-rating, these could be provided by the generator during the registration process. If this option is pursued, this would involve AEMO developing suitable procedures or guidelines on the registration and exceptions process.

Performance obligation based on availability during actual lack of reserve events

We provide our comments below on the balance between making a performance obligation based on availability throughout the year, and on availability during Lack of Reserve (“LOR”) events. Theoretically, and to meet the intention of the capacity mechanism, we would suggest that the performance obligation be fully based on availability during LOR events. In our opinion, it is likely that allowing the bid to be based on availability throughout the year will result in increased costs of the capacity mechanism. However, we acknowledge that there may be merit in providing sufficient investment certainty to providers of capacity by allowing part of the bid to be based on availability throughout the year, in addition to the revenues that capacity providers can also obtain by bidding their assets into the energy spot markets.

Regardless of the path the ESB proceeds with, this must be backed up by a strong testing, auditing and compliance mechanism, particularly if a substantial component of the performance obligation is to be based on being available throughout the year, to ensure that the asset was actually available throughout the year. In respect of the ESB's comment on the difficulty of verifying the accuracy of information for LOR events for enforcement (p55), we consider that this issue applies equally to information about the generator being available throughout the year, and that this can be resolved through further technical understanding of technologies and testing methodologies so that an appropriate and effective enforcement mechanism can be designed and applied.

To this point, we consider that if generators are not available at times they are being paid to be available, clawback payments at a minimum should apply. However, the ESB may wish to consider adding penalties where appropriate to discourage perverse bidding behaviour, where participants may withdraw capacity when the capacity market price is low.

Procuring capacity and auction design

Based on the ESB's preferred centralised model, we consider several options can be utilised to ensure that there is long-term investment support which does not result in overprocurement. A similar time-based (T-1, T-2 and T-3) trigger model utilised by the RRO and based on the AEMO Electricity Statement of Opportunities ("ESOO") could be used for centralised auctions run by AEMO.

To address overprocurement risk, consideration could be given to situations where there is substantial change year-on-year in the ESOO forecast. For example, if sufficient capacity is procured in the period from T-3 to T-1 resulting in a forecast at T-1 that there is sufficient capacity, the capacity procured at T-3 is less valuable at T-1. In the current proposed design, without any ability to trade or transfer the rights to provide capacity, AEMO (and subsequently, the rest of the market) would take on the risk (and costs) of overprocurement. We therefore suggest that the ESB explore the possibility of the rights to provide capacity becoming tradeable or transferable, within technical limits (e.g. within a certain class of generators meeting similar standards within the registration process described above), provided that they can meet performance obligations and registration requirements.

It is also pertinent to note that to reflect the physical constraints of generation, limitations on bidding into the spot market should apply to generation already contracted to provide capacity. The existing Reliability and Emergency Reserve Trader ("RERT") framework has existing limitations on dispatch in the energy spot market⁵ that provide an appropriate starting point for the proposed capacity market design to reflect the physical nature of not being able to be dispatched into two markets at once. We also note that the proposed capacity market has implications on the spot market and its Market Price Cap ("MPC"). The current proposal will result in a capacity market operating alongside a gross pool market without a balancing market⁶. We suggest that the ESB consider the impacts of this design on the level of MPC, and whether it would be appropriate to lower the MPC if a capacity market mechanism is introduced.

⁵ 3.15.9(e)(3) of the National Electricity Rules

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<https://reader.elsevier.com/reader/sd/pii/S2211467X19300021?token=4FA9AA7741DBEA9CC79B4AD8BEBF7D1BD377A38C960B9446E812F938A2D8FF939E0F820FAA1362FD9DBF38E61CF33E12&originRegion=us-east-1&originCreation=20220723104737>

Allocation of costs of capacity

The ESB proposes that AEMO could recover costs of capacity via retailers using actual demand (ex-post) during periods where the capacity performance obligation applies. This is a relatively straightforward exercise with precedents such as RERT or directions costs where the costs get included in regulated pricing cost stacks (i.e. the Default Market Offer and the Victorian Default Offer).

Currently, the nature of regulated retail pricing regimes includes such costs in the cost stack ex-post and does not consider cashflow implications on retailers, particularly where retailers may be restricted from recovering costs from small customers. These restrictions disproportionately impact smaller retailers without generation assets, who often offer lower retail rates that benefit vulnerable customers.

Given that this issue applies to any additional costs being added to a retailer's cost stack, and with the capacity market being likely to add to the overall cost of delivering energy, the ESB may wish to take this opportunity to address broader issues of retail competition and regulated retail pricing with relevant Government policymaking stakeholders, specifically addressing how regulated retail pricing fits into its post-2025 market design. In doing so, the ESB may also wish to further consider the impacts of a long-term downward bias on the regulated retail price being observed in recent regulated retail pricing determinations⁷, and whether this may result in negative longer term impacts by discouraging efficient investment on the supply side if there is a lessening of retail competition.

Pacific Hydro Australia thanks the ESB again for the opportunity to provide our views. If you would like to discuss this submission, please contact me at the details provided with the submission.

Yours sincerely,

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⁷ <https://engage.vic.gov.au/download/document/26936>

<https://www.aer.gov.au/system/files/Tango%20Energy%20-%20DMO%202022-23%20Draft%20determination%20submission%20-%2017%20March%202022.pdf>