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Submitted online: https://www.aemc.gov.au/contact-us/lodge-submission

Submission to draft determination for ERC0290 – Operational Security Mechanism

Dear Ms Stark

Delta Electricity (Delta) welcomes the opportunity to respond to the AEMC's draft determination on the Operational Security Mechanism (OSM). Delta is strongly supportive of market reforms that introduce the valuing and procuring of essential system services (ESS), as this will be critical to a successful and stable transition to a power system that will increasingly be dominated by non-synchronous generation sources.

The original intent of Delta's rule change request, Capacity commitment mechanism for system security and reliability services, was to manage generator commitment for both system reliability and security and minimise AEMO directions. The energy market alone does not explicitly value the technical characteristics (i.e. ESS) that support a safe and secure power system, as these services have traditionally been provided free of charge from conventional synchronous plant. The transition has started and, without appropriately valuing and procuring ESS, the market will continue to be exposed to suboptimal interventions that will increase costs that are ultimately borne by customers.

Incentive to Provide ESS

Delta's view is that the draft OSM design does not provide adequate incentive and signals to encourage new and existing participants to provide ESS into the market. Delta notes the following concerns:

- the inequity among participants created by paying multi-service units (that provide both energy and ESS) for only one service. For example, a synchronous generator can only be renumerated for energy or the provision of ESS while it provides both services;
- the risk placed on OSM participants that they may not be able to financially cover hedge positions when energy prices increase above the OSM price. This would result in generators reducing hedge positions, lowering contract market liquidity;
- there is uncertainty of enablement and dispatch payments for slow start units as these units must decide if to turn on before they know if they will be paid to do so; and
- there is a lack of revenue certainty created by the OSM as it will only value the additional ESS needed at the bid price. This will provide very little, if any, signal for the new investment needed to provide ESS beyond the retirement of the existing

conventional plant. The ‘pay as bid’ settlement approach for OSM participation will create a distorted outcome where participants will be paid different amounts, and potentially none at all, for the provision of the same service. This will inhibit sending investment signals and efficient lowest-cost bidding.

These concerns, if not addressed, will reduce the effectiveness of the OSM as many synchronous generating units may not participate. While this is a deliberate design choice by the AEMC to shift more of the risk to generators and favour faster start units closer to dispatch, this will likely result in increased power system costs in the short to medium term and potentially in the longer term because of the lack of sufficient ESS providers. Given the critical importance of system security, the operation of the OSM (at least during its first years of operation) should be as simple as possible to increase the prospect that it will, in fact, be utilised by the existing ESS providers.

Delta encourages the AEMC to consider adjustments to the OSM design to address these concerns. Most critically, and aligned with the long-term objective of unbundling services, is the need to value the provision of ESS separately to the electricity provided. Delta believes this, as well as the suggested changes below, will provide the right incentives for existing participants as well as sending a stronger signal for investment, operational certainty for AEMO, and the greatest value for customers.

Unbundling the OSM from the Electricity Market

Delta supports establishing a technology neutral and service-based mechanism, where participants are accredited to provide ESS and this information is published to the market. This will provide transparency of the technical abilities of participants and allow other participants to make informed investment decisions on where to locate and what services and technologies to invest in.

Delta does not support an optional OSM. Delta considers the OSM should value all ESS that is provided, and it should not ignore or inhibit participants from earning the full value of the electricity that may also be provided along with ESS.

Delta proposes that participants are paid for both ESS and energy where both are provided. Delta notes this is more aligned with the long-term goal of an unbundled design where each service, including energy, is valued and procured separately. While AEMO may not yet have the technical knowledge to define and unbundle each ESS, this should not stop the AEMC designing an OSM that stays true to the long-term objective. In practise, this would mean participants would earn OSM revenue as well as the energy price on the full amount of energy produced. As more ESS are defined and valued separately, the OSM would be less ‘bundled’ and the price would decrease to reflect this with other services being separately valued and procured. Importantly, this approach will not result in ‘double dipping’ as it will more directly value the services participants provide compared with the draft design. As the OSM price reflects the value of the bundled ESS service, this will allow these participants providing ESS to become more competitive in the energy market and reduce their bids, as less of their revenue is needed from this market. This will put downward pressure on the wholesale energy price and provide greater long-term signals and drive allocative efficiency of investment to provide both ESS and electricity, ultimately reducing the costs passed onto customers.

Separating ESS from energy will also create greater transparency of the ESS market and incentivise AEMO to progress its knowledge and further unbundling of ESS. This will speed up the transition to an unbundled framework that will provide efficient long-term signals for each ESS and lowest cost outcomes for customers.

Impact on the Contract Market

For the success of the OSM, unbundling the provision of ESS from the energy spot market will also remove the issue created by the current design that would see participants who are hedged for generation face potentially significant financial risk if the energy price increases above the OSM price after they have been committed into the OSM. For example, a 600 MW synchronous generator that has 250 MW (its minimum generation) committed into the OSM ahead of energy dispatch would not be able to financially defend a hedge position above 350 MW (i.e. its maximum generation capacity minus its minimum generation) if the energy spot market increased above the OSM price. This is because it could not dispatch more than 350 MW into the energy market. This would likely result in either:

- an increase in the price of forward contracts as they would factor in this risk; or
- reduced volume of forward contracts available to the market, increasing the proportion of unhedged retail load.

Both of these outcomes would increase prices and price volatility for customers.

Commitment of ESS Providers

It is AEMO's responsibility to ensure the power system's technical operating standards are met, and it should therefore be AEMO's decision to commit ESS providers to achieve this.

Delta understands the AEMC's desire to maintain a common provisional and final commitment schedule for all ESS providers and to have OSM commitment finalised as close to energy spot market dispatch as practical. This approach would drive operationally efficient outcomes if there were ample fast start ESS providers available in the OSM. However, this is not the reality of the NEM now nor is it likely to be before 2030 and potentially longer. AEMO noted in the 2022 ESOO:

- the urgent need for investment in more firming services than is forecast; and
- the expected delays in the already committed projects.

Delta considers that, while the power system is still heavily reliant on slow start units for providing essential system services, the OSM needs to reflect the technical limitations of these units. Otherwise, the draft design will make it difficult and more costly for slower start units to participate in the OSM. If they do participate, they will need to factor in the risk of committing plant in advance of the final OSM run and then not being dispatched. To be clear, Delta understands the AEMC's desire for this outcome as it would reward more flexible fast-start units, but until there are sufficient amounts of these types of ESS providers, the draft OSM design would likely increase uncertainty and risk for existing ESS providers, which would increase the costs built into prices and the likelihood of directions being needed.

Delta proposes that the OSM needs to be designed and allowed to evolve with the technical characteristics of the generation fleet in mind. In practise, the OSM should consider the return to service information participants will provide as a result of the recently made rule

Enhancing information on generator availability in MT PASA and extend this information requirement to all PASA timeframes. This would provide AEMO with the right information and certainty to decide which units to commit and when, and allow AEMO to refine how far in advance it may need to commit ESS providers. Otherwise, requiring all units with varying recall times to decide to commit or not without certainty until a few hours out from dispatch will drive inefficient outcomes as:

- if a unit commits and is not dispatched through the OSM, it will increase its costs that will need to be recovered from the market through higher energy prices, as well as disincentivise it from participating in the OSM in the future; or
- if a unit decides not to commit and is then required, AEMO will need to use more costly directions which may not allow it to call upon slower start units.

These outcomes will increase the costs of operating the power system that are ultimately borne by customers.

Delta proposes that AEMO use recall time information for all eligible and accredited ESS providers to decide when it needs to recall and commit additional units back into services that would not otherwise be available at the time needed.

Enablement Payments

The draft determination states enablement revenue would only be earned when the OSM causes a participant to come online and is dispatched through the OSM. As noted above, Delta proposes that AEMO use recall times to decide when and which units to commit to explicitly provide ESS, rather than participants bearing the risk of not being dispatched. This approach will provide greater revenue certainty to the market and operational certainty for AEMO. But more importantly, it will not require participants to include the risk of not being dispatched in their OSM bids. This would provide greater system security outcomes for customers at lower costs.

If the AEMC continues to favour an OSM that has voluntary participation, Delta agrees that enablement payments should only be paid to those participants who have genuinely incurred enablement costs in response to OSM signals. It is important, however, that units that have responded to the OSM by coming online but are not dispatched through the OSM are also compensated for enablement costs. This will be particularly important in the short to medium term when it is still likely that the remaining coal fleet will be integral to the supply of ESS. Allowing recovery of OSM enablement costs, irrespective of being dispatched or not through the OSM, will provide certainty for customers that participants will be available to provide a secure power system as it ensures the right signals are sent to the market when ESS are needed most. This approach would be more efficient, as it will ensure:

- all technologies have certainty that they would recover enablement costs caused by responding to the OSM which would improve confidence for participation in the OSM and reduce the reliance of expensive alternatives like directions; and
- the increase in OSM enablement costs would likely be offset as participants would take these revenue arrangements into account when bidding into the other energy service markets.

Variable Price Component

Delta understands that participants that produce energy, if dispatched through the OSM, would receive revenue equal to their variable OSM bid multiplied by the accredited volume of energy provided through the OSM. This means that the OSM would:

- not use a common clearing price and participants may be paid different amounts for the same service; and
- not pay participants who provide ESS through the energy market.

This approach creates inefficient outcomes, as it attempts to optimise the theoretical risk and benefit trade-offs participants would need to make and ignores the practical differences between slow and fast start units and the high cost of directions that will be needed to fill the gaps when revenue uncertainty drives conservative behaviour by ESS providers. It does not address the key concern of incentivising and ensuring there is enough ESS provided into the power system at the most critical times of need:

- a 'pay as bid' approach will punish the cheapest providers as there will be no incentive to innovate or provide ESS at the lowest cost; and
- the different treatment of participants who provide the same service creates revenue uncertainty through the trade-off participants must make between the OSM and energy market as participants will miss out on revenue if the energy price is above the OSM price.

Delta proposes that the variable component of the OSM payment should be based on a common clearing price that is paid to all eligible and accredited participants proportionate to the ESS they provide. This would mean the OSM is mandatory but importantly rewards and incentivises those participants who provide ESS.

This approach provides greater certainty for participants and a stronger signal for new investment, but importantly will not increase costs and may even reduce power system costs further as:

- there will be less need to rely on directions, and it will provide AEMO with greater ability to ensure the system remains secure during the transition; and
- it would provide a truer value of all the ESS provided, meaning ESS providers (that also produce energy) would need to recover less from the energy market, reducing wholesale market costs, thus reducing costs passed onto customers.

<u>Using the OSM as a Floor Price</u>

If the AEMC maintains a design that does not unbundle ESS from energy, an alternative approach that Delta would support is to use the OSM variable price as a floor price, so that if the energy spot price clears above the OSM, the energy price prevails for those participants that provide both ESS and energy. If the energy price settles below the OSM price, including negative prices, ESS providers would receive the OSM price for their accredited ESS provision and receive the energy price if they produced a volume of energy above the accredited amount.

The exception would be those technologies that do not provide energy while providing ESS. They would receive the OSM price only.

This approach, while not the preferred long-term solution, is a practical interim solution that would ensure the OSM does not detract from the existing energy and forward contract markets. It would also provide a better investment signal for future ESS providers, which would enable a faster transition to the long-term goal of separate markets unbundled for each service.

Market Power Consideration

Under the draft design the AEMC overly focuses on questions of managing market power, and instead should prioritise developing the best design for an OSM. Only after this should market power controls be contemplated. It may be appropriate to initially operate the reform without controls to observe if the concerns materialise. If the AEMC implements some or all of the changes that Delta has proposed, for example a common clearing price, then market power issues may then need to be considered.

The primary concern with the proposed OSM is that it will not provide sufficient, if any, incentive for new investment to provide ESS, driven by the uncertainty around dispatch and revenue. However, the draft determination notes that an effective way to minimise market power is to encourage new and many providers into the market. While Delta does not consider market powers issues are a material concern if the draft design was implemented, it is problematic if the AEMC considers the draft design will encourage new entry and reduce market power concerns. Delta encourages the AEMC to consider its proposed changes, or any other proposed changes that would provide greater investment signals for existing and new providers of ESS.

Investment in ESS Service Provision

An OSM that sends strong signals for the provision of ESS is in the long-term interest of customers. The concerns raised in this submission stem primarily from how the draft OSM would not address the key issues that the market will face in the short to medium term, in particular the need for the OSM to send stronger investment signals to demonstrate the current value of ESS and encourage new providers of ESS to enter the market. If not adequately addressed in the OSM design, this will likely result in more costly ESS solutions through directions and more urgent need to bring on new providers as the existing fleet of synchronous generators retire. This would increase the cost of running the power system, as well as increase the risk of the power system operating insecurely, neither of which are in the long-term interest of customers.

Implementation

Delta encourages the AEMC to consider if the OSM can be brought in earlier. The current timing for the exit of significant coal fired synchronous generation in NSW between now and mid-2025 is a significant loss of ESS supply to the NEM and should be giving far greater urgency to the development and implementation of the OSM. In order to protect system security, the OSM should be in place before 2025 to allow AEMO operational experience with it, allowing AEMO to better manage system security risks that could occur as early as 2025.

In practise, this would mean the five publications between January to July 2025, noted in Figure 4 of the draft determination, would need to be published in the second half of 2024. This would allow the OSM to start from 1 January 2025 and give AEMO at least six months of using it before the earliest closure date of Eraring power station.

Delta acknowledges the complex task it has been in developing the draft OSM design and appreciates the AEMC's focus on stakeholder engagement throughout the project to understand the issues and concerns that the draft design raises. To discuss further please contact Joel Aulbury, Regulation and Strategy Manager, at joel.aulbury@de.com.au.

Yours sincerely,

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