

Ms Anna Collyer  
Chair  
Energy Security Board  
Submitted via email: Info@esb.org.au

Dear Ms Collyer,

**Re: Post 2025 Market Design – Capacity mechanism - Initiation**

Thank you for the opportunity to participate in consultation on the Energy Security Board's (the ESB) initiation paper on further work to develop a detailed design to value capacity.

ATCO are committed to the National Electricity Market's decarbonisation. With a 70+ year legacy in energy infrastructure in Canada and globally, ATCO are actively investigating investments across the entire energy value chain, including renewable generation, transmission, distribution and storage infrastructure for the national electricity market. Our growing footprint includes the Central West Pumped Hydro (CWPH) project - a 325MW capacity, 2,600MWh pumped storage hydropower facility with 8 hours of storage near Bathurst in New South Wales.

With this experience, ATCO are familiar with the need and opportunity for capacity entry in the NEM, as well as the uncertainties associated with its investment. As per the Board's request, this submission comments on the mechanism's primary design choices. It also identifies additional key design choices best explored during technical working group discussions and April's consultation paper on the mechanism's draft detailed design. The key points this submission conveys are:

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1. ATCO supports the development of a capacity mechanism in principle that solves for the mix of resources we know we need as we transition.
2. A mechanism should err towards simplicity through centralisation of procurement and forecasting responsibilities.
3. Due consideration to the development of a 'reliability option' as the mechanism's capacity product should be explored in conjunction with the progression of 'physical certificate' model.

## 1. View on capacity mechanism need and rationale

AEMO's 2022 Draft ISP forecasts a need for 45GW of new storage.<sup>1</sup> At least 7GW of this will be medium storage, of which AEMO has declared "the most pressing utility-scale need in the next decade."<sup>2</sup> As a long term investor and owner of energy infrastructure, ATCO is progressing with the development of these storage solutions, unlocking deeper VRE penetrations and a least-cost transition for consumers.

Meanwhile, these flexible, dispatchable, longer duration storage assets are often more difficult to design, develop, finance and operate. Contributing to this is that the regulatory frameworks and power system conditions that effectively value them, while anticipated, are yet to emerge. Concerns explored by the ESB impeding capacity build are material, namely the "falling cost of new technologies, uncertainty around generator closure dates, demand uncertainty and a lack of counterparties to underwrite long-term investments."<sup>3</sup> This means to meet the ISP's forecasts, the NEM needs participants who are equipped to take long-term views on the opportunities in Australia's clean energy future.

For these reasons, ATCO supports the further development of a capacity mechanism in principle. This qualified support is contingent on the Energy Security Board presenting a compelling case that the design choices adopted in the final design deliver net benefits to the market and consumers by bringing forward the right type of capacity build, which otherwise would have entered late or not at all.

We are supportive of the ESB's intent to develop a 'base case' to represent the best alternative to introducing a capacity mechanism, and the stated willingness to readily prosecute and refine the case for change over the course of subsequent consultations. This is important to ensure that objective of the mechanism remains targeted and supplementary to the existing energy-only market, reflective of the system need as represented by real-time signals, and is advanced in the context of broader transformations underway across other segments of the energy supply chain.

Australia's energy market and regulatory frameworks should support the mix of resources we know we will need as we transition, and move us firmly forward towards decarbonisation and our future energy economy.

## 2. Choices regarding centralisation

ATCO consider a centralised approach to procurement and forecasting of capacity to be most likely to facilitate timely entry, where the remit for procurement and forecasting by a central buyer is targeted, transparent, and responsive to the increasing flexibility of emerging retailer portfolio positions.

A targeted centralised option – complemented by design choices that ameliorate impacts of market power concentration and consumer captivity issues – should be explored further by the ESB as a preferential option.

Choices regarding centralisation typically reflect a trade-off between implementing a simple mechanism that minimises regulatory burden and compliance obligations, in favour of allocating risks to those best placed to manage them. ATCO acknowledge the ongoing refinement of the problem statement guiding this work, but note the existing stated intent is to "close the gap between investor incentives and the risk appetite of governments by valuing capacity."<sup>4</sup> ATCO consider this to be most effectively achieved through the certainty afforded by a centralised procurement and forecasting model, while risks of over procurement and the implications for innovation and competition of curating a more captive consumer and retail market can be managed with subsequent design choices. These may include consultation and transparency obligations regarding a central body's procurement and

<sup>1</sup> 2022 Draft Integrated Systems Plan, AEMO, 2021

<sup>2</sup> Ibid.

<sup>3</sup> Capacity Mechanism Initiation Paper, Energy Security Board, 2021

<sup>4</sup> Ibid.

shortfall identification forecasts, annual updates to retailer cost allocations and ex-post settlement arrangements that recognise non-scheduled demand response capability in retailer portfolios.

ATCO do not support a decentralised approach, as advanced previously under the Retailer Reliability Obligation. The decentralised approach provides little impact in either incentivising capacity or preventing further jurisdictional intervention, while adding additional complexity for participants already managing their obligations in the energy-only market.

ATCO note a benefit central buyer model is conducive to longer-dated reverse auctions, as explored by the ESB in its Post 2025 work, and recommend this optionality be considered further.<sup>5</sup> This is an effective means to facilitate longer-term certainty capacity entry that is otherwise difficult to build on the basis of short-horizon offtake contracts. As is made in other markets to facilitate revenue certainty, arrangements can be implemented for prospective projects to ‘book’ capacity to be cleared in future auctions, which can be complemented by penalties for non-delivery.

### **Choice regarding the type of capacity ‘product’**

ATCO consider the ESB should give due regard to the type of capacity product that underpins the capacity mechanism development in the April detailed design paper. At the very least, the ESB should explore the feasibility and applicability of reliability options, or physical caps accredited to eligible generators, as a preferential model. Despite a lesser focus of the consultation process to date compared to the physical certificate model, its likelihood to better and more simply reflect the need for firmness as signalled by the spot price merits further examination.

In putting forward this position, ATCO note the preference of Energy Ministers for “a capacity mechanism...[to create] a second marketplace for availability... [putting] a value on generators being available during periods where demand could exceed supply.”<sup>6</sup>

In further developing the type of capacity product the ESB should consider:

- **The best way to incentivise the right mix of resources without a complex set burdensome arrangements.** ATCO is concerned a physical certificate model will fail to signal for the right mix of resources without a complex set burdensome arrangements. The default model for ‘physicalness’<sup>7</sup> progressed by the ESB through the Post 2025 project and this initiation paper is based on physical certificates, which largely reflect a purchase of capacity as MWs. ATCO note however an important distinction between the procurement and payment of capacity with the expectation that it may be available, compared to the valuing capacity for its availability in addition to its spot revenue. To its credit, the ESB have sought to manufacture availability constraints on the physical certificate model, including accreditation methods for capacity providers, defining certificates as eligible only in select reliability ‘at risk periods’, and ex post compliance and penalty arrangements for generators that do not dispatch according to the certificate allocations. There is a risk the repeated addition of these arrangements only to replicate the availability signals of the spot market may add costs and burdens to participants with diminishing benefits to consumers.

<sup>5</sup> Post 2025 market design final advice to energy ministers Part C, ESB, 2021

<sup>6</sup> Capacity Mechanism Initiation Paper, Energy Security Board, 2021

<sup>7</sup> An intent to establish a link between physical plant and the derivative products bought and sold in contract markets.

- **The Irish Capacity mechanism** – ATCO note the discussion in the initiation paper relating to ‘reliability options’ as used in the Irish capacity remuneration mechanism. Under the Irish model, capacity providers would be compensated for MWhs, and be exposed to prices above the reliability option strike price for the amount of reliability options that they sold. At face value, this option appears to ensure consistency with signals sent in the spot market, and rewards assets that are flexible and dispatchable and willing to defend cap positions at lower costs premiums. It is also likely to incentivise participants to defend positions in the energy-only market at a lower marginal cost.
- **Impact of reliability options on the existing market** – Consideration would need to be given to the impact that reliability options have on the existing cap market and the quantity of MWhs a central buyer would be eligible to procure, as well as the methodology for determining forecast capacity shortfalls. Detailed consideration would also need to be given to whether the premium afforded to reliability option sellers to incentivise capacity investment sufficiently offsets the dampening of spot price volatility made likely by expanding cap procurement beyond where the market would ordinarily settle.

We thank the ESB again for the opportunity to make a submission. If you have any questions or would like to discuss any of the comments made in this submission, please contact myself or Ollie Tridgell, Manager NEM Energy Policy on 0499 410 551. In the meantime, ATCO look forward to advancing capacity mechanism design elements alongside other industry players in upcoming Technical Working Group discussions.

Yours sincerely



**Karen Nielsen**  
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