



9 June 2021

Dr Kerry Schott AO  
Energy Security Board  
Submitted online to: [info@esb.org.au](mailto:info@esb.org.au)

Dear Dr Schott

### **Submission: Consultation Paper on Post 2025 Market Design Options**

CS Energy welcomes the opportunity to provide a submission to the Energy Security Board's (**ESB's**) *Consultation Paper – Post 2025 Market Design Options (the Paper)*.

#### **About CS Energy**

CS Energy is a Queensland energy company that generates and sells electricity in the National Electricity Market (**NEM**). CS Energy owns and operates the Kogan Creek and Callide B coal-fired power stations and has a 50% share in the Callide C station (which it also operates). CS Energy sells electricity into the NEM from these power stations, as well as electricity generated by other power stations that CS Energy holds the trading rights to.

CS Energy also operates a retail business, offering retail contracts to large commercial and industrial users in Queensland, and is part of the South-East Queensland retail market through our joint venture with Alinta Energy.

CS Energy is 100 percent owned by the Queensland government.

#### **Key recommendations**

The NEM is inarguably in transition with increased variable renewable energy (**VRE**) and a momentum to shift to an overall lower carbon footprint. The ability to effectively and efficiently manage power system security and reliability against this evolving landscape is paramount, and CS Energy supports the need to reassess market and regulatory frameworks to deliver this remit at least cost to consumers.

This transformational task is complex, requiring understanding of the multi-dimensional aspects of the transition and how frameworks could be redesigned or developed. The enormity of the task is reflected in the work that is still required to scope, assess and collaborate on the proposed options and CS Energy looks forward to working with the market bodies to:

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- Develop in-principle recommendations to Energy Ministers, clearly articulating the work required in each area for progression;
- Publish a clear timeframe and plan for stakeholder consultation that is appropriate for such market reform options with this consultation to be focused on both the individual options as well as the holistic package. This would include the appropriate governance arrangements of progressing the reform after the scheduled cessation of the ESB; and
- Conduct intensive consultation on the assessment process that will be used to determine the final design with clear and collaborative input on the relative trade-offs between options.

In CS Energy's view, the comments provided in its submission to the consultation paper in September 2020 remain relevant so only brief comments on the key areas are provided.

## **Resource adequacy**

### Coordination of jurisdictions

CS Energy is broadly supportive of the ESB's objective to coordinate jurisdictional investment schemes to mitigate adverse impacts on the market. However, given that the Australian Energy Market Operator's (**AEMO's**) existing processes signal investment needs in each region, it is unclear what can be achieved via the proposed enhanced information provision.

Efforts to coordinate the design of long-duration contracts underwritten by government across the NEM are welcome. However, alignment on principles will be insufficient if there is no coordination of the targeted outcomes and their alignment with the physical system needs.

### Timely exit of plant

CS Energy maintains that the existing frameworks are sufficient to manage the timely exit of plant. Generators provide detailed information on plant availability across a number of processes and timeframes. This information provision also includes times and requirements for the recall of relevant units if needed, and AEMO is able to request further information when and if required. Given this workstream focuses on the need to incentivise greater operational flexibility in the market on one hand, it seems detrimental to then impose requirements on generators that mandate operational inflexibility on the other hand.

CS Energy agrees with the need to perform system impact assessments and considers this to be within AEMO's remit of identifying and planning for system security and reliability risks in the operational planning (3-5 year) timeframe.

### Timely entry of plant

The ESB proposes that a modified Retailer Reliability Obligation (**RRO**) will provide long-term investment signals and posits either a financial or a physical RRO. Unfortunately, the Paper has not progressed the scoping of these options. Significant work is required to unpack each of these before either can be presented as a potential recommendation. In particular, the Paper downplays the significance of the change a physical RRO would represent to the market and the ESB needs to conduct a thorough impact analysis.

CS Energy's view that neither RRO will be able to deliver the purported benefits has not been changed based on the information contained in the Paper for the following reasons:

- Options to strengthen the signal for the financial RRO will serve only to increase the scheme's cost for little additional market benefit, and removal of the T-3 trigger will have adverse implications on contracting and market liquidity;
- A physical RRO will introduce significant changes into the market as it is a decentralised capacity mechanism that is always "active". The scheme will need to assign a deterministic capacity value via certificates for a generation fleet that is increasingly probabilistic. Developing and implementing methodologies that ensure these certificates are tradable will be challenging.

It is unlikely that participants will be able to cover this physical obligation under existing contract constructs managing market price exposure. Instead, participants will be required to contract for physical capacity under a separate market exchange. This will materially increase the compliance obligations and more importantly, is unlikely to provide long-term investment signals; and

- There has been no exploration of how a modified RRO will interface with other market reforms particularly the desire to move towards a trader-services model. It is unclear how both options will not stifle innovation in the retail space and will complicate the challenge of integrating the demand side.

### **Essential system services**

CS Energy considers the need to value essential system services (**ESS**) as the top priority for NEM reform and is disappointed with the overall lack of progress. There has been no strategic lens applied to assessing ESS frameworks and the immediate and initial reforms proposed are the rule change requests submitted by industry. Much of the ESB's discussion on ESS focused on scheduling mechanisms and thus, CS Energy is highly supportive of the Australian Energy Market Commission (**AEMC**) assuming sole carriage of the essential system services work and recommends:

- Considering frequency control in a more holistic process which questions what the new normal is, how services are interrelated and values all related ESS in parallel. That is, fast frequency response, primary frequency response and inertia mechanisms should be developed holistically to capture their interrelatedness. This would also facilitate the required flexibility in frequency control frameworks as the NEM evolves;
- Valuing inertia beyond minimum levels is a priority and should be an initial reform;
- That the AEMC continue progressing a planning standard for system strength; and
- That the AEMC not shy away from potential solutions that may be more complex to implement now as they may represent an effective and efficient long-term solution.

### **Scheduling and ahead mechanisms**

CS Energy is supportive of the concept the Unit Commitment for Security seeks to achieve. However, AEMO's existing processes already facilitate the scheduling of structured procurement and it is within AEMO's remit to internally develop operational tools. The ESB

should redirect resources to high priority reform objectives such as valuing ESS prior to progressing this concept further.

At this stage, CS Energy is not supportive of the System Security Mechanism (**SSM**). It requires significantly more work and collaborative consultation to demonstrate its benefit as well as address potential unintended consequences of its objective function. From an early stage the ESB has emphasised that the reform will preserve decentralised decision-making, however, there is concern that the SSM could facilitate an increase in centralised commitment.

### **Integration of distributed energy resources and demand side participation**

CS Energy is supportive of the removal of barriers to market participation of distributed energy resources (**DER**) and demand response and believes that they present enormous opportunities. CS Energy agrees with the need for a transitional pathway for this reform and the application of the Maturity Plan is conceptually good but needs to be more pragmatic both in terms of scope and governance to ensure efficient outcomes for consumers:

- The Maturity Plan maintains a blanket assumption that consumers not only will be willing to participate in the market but will do so in a way that is efficient for the system. The level and type of participation will have implications on the operational challenges and opportunities of integrating DER, and the required solutions. Any program to integrate DER needs to be cognisant of the different levels of participation that may arise, and the resultant opportunities as well as potential impacts on consumers with no DER. The Maturity Plan must employ participation rates as key milestones for progression.

The lack of consideration of participation rates is reflected in the “build it and they will come” approach to the workstream which risks enormous costs to consumers if participation rates don’t eventuate. Instead of specifying frameworks such as flexible trading relationships, market driven solutions should be encouraged as they will be more representative of the consumer need and will be more efficient in the longer-term;

- Assessments of the benefits need to be accompanied with an assessment of the costs, whereby the costs are not only related to implementation but also the cost to other participants, the total system and managing other frameworks such as consumer protections. The forward governance of the Maturity Plan needs consideration with options developed subject to the same level of due diligence as applied to rule change assessments; and
- Characterising DER integration as the “minimum demand challenge” sets a dangerous precedent in addressing operational challenges. Reference to DER displacing synchronous generation and hence security services at times of minimum demand is only one dimension of the challenge. DER presents operational challenges (and opportunities) at all times and these cannot be shoehorned into a single snapshot of the day. Doing so will create an ineffective solution that may end up more costly in the longer-term.

### **Transmission access**

Access reform is complex and the challenges in resolving the difficulties emerging with the shifting characterisation of the NEM from centrally located dispatchable generation to small and geographically dispersed VRE generation connecting to parts of the network with insufficient capacity, should not be underestimated.

The ESB must be cognisant of the disruption that any access reform will impose on the market, particularly when mechanisms reflect an economically theoretic efficiency rather than practicality. The complexity also mandates detailed exploration, assessment and consultation, a process that has not been conducted, with this for example being the first consultation on the interim measures.

A lack of pragmatism is evident in the proposed “medium-term” access reform. This is a misnomer with access reform, by definition, a long-term process with potentially huge market implications. In this respect, the ESB’s proposed pathway is flawed and this is heightened by the fact that each interim measure is seeking a different outcome which compromises a clear pathway to any long-term solution.

The costs associated with the development and implementation of interim measures will be material and it is unclear how this compares to any benefits of an interim measure. The transition to an interim measure and then to a longer-term reform will have a disruptive effect on market participants’ ability to contract and the associated cost. This will also manifest in an inability to efficiently manage risks over the transition period or plan for new investment.

It is concerning that the ESB continues to ignore overwhelming stakeholder opposition to the introduction of a locational marginal pricing (**LMP**) and financial transmission rights (**FTR**) model which it posits as the long-term solution. While this model may be academically feasible, market participants have highlighted the detrimental impact an LMP-FTR model will have on market efficiency and liquidity and identified strong concerns with the cost-benefit analysis that was performed.<sup>1</sup> As previously recommended, the ESB should seek to gain a better understanding of the complete range of factors underpinning generator locational decisions, and then assess whether LMP-FTR will change this behaviour.

To avoid adverse outcomes for consumers, the ESB should undertake comprehensive impact analysis of the proposed measures and work closely with stakeholders to capture the risks and costs to the market.

If you would like to discuss this submission, please contact Dr Alison Demaria (Market Regulatory Manager) on 0407 548 627 or [ademaria@csenergy.com.au](mailto:ademaria@csenergy.com.au).

Yours sincerely



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<sup>1</sup> Baringa, [An independent assessment of the NERA report on the AEMC’s proposed transmission access reforms](#), October 2020