



4 November 2020

Dr Kerry Schott – Independent Chair
Energy Security Board
GPO Box 787
CANBERRA ACT 2601

Dear Dr Schott

Post 2025 Market Design Consultation Paper

Alinta Energy welcomes the opportunity to respond to the Energy Security Board's consultation paper on post 2025 NEM market design. As an active investor in energy markets across Australia with an owned and contracted generation portfolio of nearly 3,000MW and more than 1.1 million electricity and gas customers, we have a strong interest in the outcomes of the consultation process.

Alinta Energy agrees with the objective and necessity of meeting the challenges currently facing the NEM while maintaining a market structure that encourages ongoing cost-efficient investments, sustainability and market competition in the long-term interests of consumers.

Alinta Energy supports the introduction of the following Market Design Initiatives with some qualification discussed further below:

1. Elements of the Resource Adequacy Mechanism;
2. Real time markets for essential system services; and
3. Unit commitment for security for scheduling and ahead mechanisms;

We believe adopting these MDIs as described in our submission will address the challenges of:

- Managing increasingly variable and intermittent sources of generation;
- Compensating market participants for services historically provided for free;
- Encouraging investment in assets capable of addressing gaps in services required for system strength and reliability; and
- Providing greater certainty for market participants and the Australian Energy Market Operator for planning and committing to dispatch.

Alinta Energy appreciates the ESB has chosen to focus reform on efforts that will allow new mechanisms to be implemented over the short, medium and long term, rather than propose a fundamental redesign of the energy-only market that has proven to be resilient and effective for more than two decades. Addressing issues of resource adequacy, essential system service provision and missing markets will help the NEM adapt to the changing generation mix and the increasing contribution of distributed energy resources.

As a fundamental guiding principle, Alinta Energy also supports the application of market-based mechanisms where possible to address the challenges identified by the ESB. This will foster the most efficient levels of investment and operation of plant and assets in the NEM while signaling investment without distorting the market.

Alinta Energy does not support the introduction of two-sided markets or prescribing the integration of distributed energy resources beyond what is already underway without significant further analysis to determine the scope and timing of such reforms. Furthermore, we do not support additional requirements to manage the retirement of aging thermal generation beyond a framework that supports voluntary negotiation between asset owners and relevant authorities.

It is our view that not all the proposed solutions and reforms will be necessary (in the near term or at all) and that some overlap with live or finalised rule changes aimed at addressing the similar market problems exists. For example, the proposed two-sided market mechanism, while an extension of the wholesale demand response mechanism, will require significant further work to determine its interaction with DER markets, the technical and operational standards to manage its integration with the wholesale market, and the appropriate applicable consumer protections. Although we consider that further high level detail on the proposed two-sided market mechanism is necessary, Alinta Energy believes that these design details should be enhanced by, and coordinated with, the existing pipeline of related reforms (e.g. five-minute settlement, global settlement, and the WDRM).

There are diminishing returns associated with the proposed reforms and Alinta Energy urges the ESB to focus on those mechanisms that provide greatest benefit for the least cost in the short to medium term. The introduction of new essential system services (for example fast frequency response) can be achieved at low cost and will provide benefits that can be realised in the short to medium term. Other MDIs (such as two-sided markets) require further consideration before significant industry and market operator resources are committed to them. This is consistent with our response to the ESB's initial Post 2025 Market Design consultation in 2019 – that short term incrementalism of market reform and rule changes should be avoided in order to focus on those reforms to the market that deliver the greatest benefit and certainty.¹

To assist with the delivery of the ESB's post 2025 program, we suggest that future proposed rule changes should not commence unless there is evidence of a clear market failure or barrier to entry. In this instance, the AEMC should coordinate its efforts closely with the ESB and narrow the scope of any finalised rules to avoid having to reassess the same issue over a short time period and introduce unnecessary costs or consequences on market participants. While fundamental change to the NEM's design would not have been a desirable approach, small, piecemeal changes will undermine investment and adaptation in the NEM and divert resources from more meaningful reform.

Detailed responses to questions and issues raised in the various MDIs proposed in the consultation paper are set out below. We welcome further engagement with the ESB and discussion of any of the matters raised in this response. Please contact David Calder (Manager, Regulatory Strategy) on (03) 9675 5389 in the first instance.

Yours sincerely



Graeme Hamilton
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¹ Alinta Energy (2019), Response to ESB – Post 2025 Market Design, page 1.
<http://www.coagenergycouncil.gov.au/sites/prod.energycouncil/files/publications/documents/AlintaEnergy%20Response%20to%20Post%202025%20market%20design%20issues%20paper.pdf>

Detailed response to proposed Market Design Initiatives

In this section of our response, Alinta Energy provides further detail on our views on the various MDIs, their associated workstreams and their timeline for introduction.

1. The Resource Adequacy Mechanism (MDI-A)

While further amendments to reliability standards and settings has been ruled out as part of the NEM 2025 MDIs, Alinta Energy encourages the ESB to work closely with the Reliability Panel in the Reliability Standards and Settings Review process and believe the choice of standards and settings during the transition period will be an important component to ensuring the RAMs MDIs are effective.

Regardless of what energy market model is progressed under the Post 2025 reform process, Alinta Energy believes it is vital to ensure sufficient incentives exist for generation investment. New entrant marginal peaking generation must be adequately profitable while only running during a limited amount of trading intervals a year, reflecting the fact that peaking generators are the last to be dispatched.

The existing MPC plays an important role in balancing competing objectives by ensuring that adequate generation infrastructure exists to meet the reliability standard. An incorrectly set MPC has the effect of undermining investment incentives or delivering an inefficient mix between generation and transmission.

At present, there is a large discrepancy between the value of the MPC (\$14,700/MWh) and the VCR (\$33,460/MWh). Having two divergent metrics undervalues investment in generation in favour of transmission. This is likely to be inefficient and may explain why no new merchant peaking plant has been built in the NEM in the past decade without significant Government support.

Closer alignment of the VCR and MPC may be needed to ensure sufficient incentives exist for marginal generation to be built, while satisfying expectations of reliability standards at least cost. Directly applying the VCR as the MPC should be investigated.

In addition, the appropriateness of the MFP(-1000/MWh) should be considered. At market start the NEM was dominated by coal-fired generation and the purpose of the MFP was to provide a turn-off signal for physical plant, which occurred relatively infrequently. Today, the NEM is facing an influx of non-synchronous wind and solar generation which is frequently causing the MFP to trigger multiple times a day for often long periods.

<p>1. Do you have views on whether the current resource adequacy mechanisms within the NEM are sufficient to drive investment in the quantity and mix of resources required through the transition?</p>

Attracting private sector investment in the NEM requires a clear market design that is subject to predictable changes. Fundamentally, it must be recognised that investments made in the energy industry are done with a 25-year time horizon. Continued tampering with a market's core design creates significant investment uncertainty that undermines current and future investment. Policy makers and Regulators should be purposeful in progressing only those reforms that are consistent with a coordinated market design.

The current RAMs are unlikely to be sufficient to support investment in the appropriate mix of resources over the medium to long term. Signals to invest have been distorted in recent years by significant government intervention and regulatory changes. These interventions include jurisdictional specific schemes such as the Victorian and Queensland Renewable Energy Targets and the ACT renewable reverse auction scheme. We reiterate that an end to incremental changes, the impact of which are not able to be assessed before further reforms are introduced, is necessary to support certainty for investors. These interventions occur at a state and federal level in the NEM and have undoubtedly impacted the willingness to invest in

resources that support reliability and system strength.

These interventions have impacted on the effectiveness of the price signal provided by the gross pool and while the Market Price Cap will inflate naturally over time, Alinta Energy strongly believes it should not be reduced given the distortions that various interventions have introduced.

2. Do you have views on whether the short-term signals provided by an operating reserve mechanism or market would provide adequate incentives to deliver the amount and type of investment needed for a post-2025 NEM in a timely manner? What impact could an operating reserve have on financial markets? What are the benefits of this approach? What are the costs and risks?

Alinta Energy is broadly supportive of an operating reserve mechanism/market being investigated and developed further for inclusion as part of the NEM's operation. An ORM coupled with markets for decentralised capacity and essential system services in the long term are likely to encourage investment in plant that will support system security and resource adequacy. A well designed ORM will value services that can be provided at times of relative scarcity.

3. Do you have views on whether the signals provided by an expanded RRO based on financial contracts or a decentralised capacity market would provide the type of incentives participants need to deliver the amount and type of investment needed for a post-2025 NEM in a timely manner? What are the benefits of this approach? What are the costs and risks?

A decentralised capacity market featuring a trading mechanism (as opposed to a compliance obligation) is Alinta Energy's preferred model over the medium term (2025 and beyond). We do not support any increase in penalties under the Retailer Reliability Obligation nor do we support the permanent removal of the RRO trigger as part of a modified RRO.

The RRO has been subject to changes in the trigger for reliability and lead time and was proving to be more burdensome from a compliance perspective than originally anticipated. Any expansion of the RRO should aim to move toward a decentralised capacity market in the longer term and not be subject to discretionary changes to its parameters.

4. Do you have views on how an operating reserve mechanism and/or expanded RRO would impact the need for and use of RERT and the interim reliability reserve if they were introduced into the NEM? What adjustments to the RERT and/or interim reliability reserve may need to be made so that they are complementary and not contradictory or duplicative?

A properly functioning ORM in conjunction with a decentralised capacity market should reduce the need to rely upon the RERT or the interim reliability reserve for anything other than last-resort reserve responses. The presence of the RERT and the increasing reliance on calling upon it in addition to the introduction of the IRR indicates the need to incentivise operational reserves via market signals. Over time, we would expect that the RERT would be called upon in only exceptional circumstances of low reserve in the NEM.

We note that multiple and potentially overlapping backstop mechanisms are not required. Alinta supports retaining the RERT for exceptional circumstances only and removing the IRR. However, to ensure efficient market outcomes, the RERT should be further amended to increase transparency and scrutiny in AEMO's decision making.

5. Do you have views on how RAMs (current or future) can better be integrated into broader jurisdictional policy priorities and programs? Should jurisdictions reflect broader policy priorities through the nature of obligations placed on retailers in an enhanced RRO or decentralised capacity market, or through the qualifying requirements for participation in an operating reserve?

RAMs (current and future) should apply NEM-wide and not be subordinate to jurisdictional priorities. Allowing for state-based derogations is inappropriate and will dilute the effectiveness of any RAMs initiatives aimed at supporting the level of reliability determined independently (by the Reliability Panel). Individual jurisdictions can raise their concerns through the National Cabinet (Energy).

2. Aging thermal generator strategy (MDI-B)

Alinta Energy understands and supports the need for an orderly transition in relation to the closure of large thermal generators to protect communities, employment opportunities and provide certainty for market participants. The existing closure requirements allow for an orderly transition and negotiated outcomes would support this further.

1. Have we correctly identified the cost, reliability and security risks to consumers from the transition away from thermal generation?

We believe that the ESB has identified the key cost, reliability and security risks to consumers associated with retirement of thermal generation.

2. Are these risks likely to be material, particularly those relating to consumer costs?

Alinta Energy believes the impact on consumer costs, and consumers more generally in terms of reduced competition, may be material if the impact of thermal generation closure on wholesale prices is not adequately reflected in price regulation and oversight (for example the Default Market Offer and Victorian Default Offer). Since retail electricity prices have been re-regulated (in effect), retailers are reliant on regulators to correctly determine their efficient costs rather than manage these risks in the market. Any underestimate of wholesale price impacts may result in retailer exit or failure and reduced choice and competition for consumers.

3. Are there additional or alternate market design approaches that will ensure the transition away from thermal generation is least cost to consumers?

Alinta Energy considers the existing measures to manage the exit of large thermal generation coupled with other MDIs (RAM, essential system services, unit commitment) are sufficient in the context of the post 2025 NEM design to manage the transition.

4. Should the ESB consider and develop any of the options outlined in this section further?

Options such as those suggested by the Grattan Institute, including measures requiring generators to pay a 'bond' and commit to timeframes that may not be possible, are likely to diminish the economic viability of impacted generators and increase the likelihood of early plant closure.

A voluntary, negotiated framework is preferable to inflexible and burdensome regulated options, and may be appropriate in certain circumstances. Such an approach should not require rule changes or specify outcomes but be undertaken between generators and relevant authorities.

3. Essential System Services (MDI-C)

Alinta Energy supports the ESBs view that spot markets for Essential System Services are the preferred approach where possible. We are generally supportive of the roadmap set out on

page 72 of the consultation paper, however, as discussed further below, believe that a market for inertia can be established without an interim step of structured procurement of services.

1. What feedback do you have on the proposed provision of an operating reserve through spot market provision? How could this interact with operating reserve procurement for resource adequacy? Will such a mechanism assist manage greater system uncertainty more efficiently than current arrangements? What additional mechanisms might be needed to foster investment needed for a post-2025 NEM? What are the benefits of this approach? What are the costs and risks?

A spot market for operating reserves could underpin the objectives of resource adequacy by meeting the need for certainty in relation to dispatch to meet forecast demand as well as providing incentives to invest in firm supply and demand side capacity. It is a market-based solution that Alinta Energy believes is worthwhile pursuing and will provide greater certainty and efficiency as the value of such services amplifies (with the exit of synchronous generation and increasing variable renewable energy entering the market). Alinta Energy agrees with the ESB that a spot-market based approach will allow efficient valuation of services and encourage participants to provide services meeting the demand for operating reserves.

2. What are your views about developing FFR with FCAS and developing a demand curve for frequency response? Will such a mechanism help manage greater system uncertainty more efficiently than current arrangements? What additional mechanisms might be needed to foster investment for a post-2025 NEM? What are the benefits of this approach? What are the costs and risks?

Alinta Energy supports the implementation of a FFR market as an additional FCAS market, similar to that proposed in Infigen Energy's recent rule change proposal to the AEMC. FFR could be implemented as an additional FCAS market with relative ease. An elastic demand curve may not be appropriate in its initial implementation as other FCAS markets do not have this design element.

There are significant benefits to implementing a FFR FCAS market – particularly as grid-scale battery investment increases in the NEM. The costs and risks of introducing FFR FCAS are limited in Alinta Energy's view and of all the ESS proposals (and MDIs), this mechanism may be the least cost to implement.

3. What are your views on the proposed structured procurement for inertia and system strength by way of NSP provision, bilateral contracts and generator access standards, or through a PSSAS mechanism? Which approach is preferable, and what are the relative benefits, risks and costs? Should the ESB instead prioritise the development of spot market for or structured procurement of inertia? What are the relative benefits, risks and costs of such an approach?

Alinta Energy believes the ESB should consider developing a market for inertia without the interim step of structured procurement. This is based on our experience with reforms in the West Australian Wholesale Electricity Market, which did not contemplate an interim process, just the establishment of a co-optimised market (to be implemented in October 2022 as part of the broader WEM Energy Transformation Strategy).² Therefore, if practical, a spot market approach should be prioritised.

There is merit in transmission network service providers procuring system strength (for example TransGrid's recent rule change proposal).³ We note that network support services are also provided by competitive market generators, including Alinta Energy's Bairnsdale power station in the AusNet network. Longer term contracts sourced competitively may also be appropriate

² Energy Policy WA, <https://www.wa.gov.au/organisation/energy-policy-wa/energy-transformation-strategy>

³ TransGrid (2020), Rule change proposal on a new system strength framework for the NEM, See: <https://www.aemc.gov.au/rule-changes/efficient-management-system-strength-power-system>

for the procurement of system strength at standards established by the Reliability Panel. Competitive sourcing of system strength should be attempted before investments (such as synchronous condensers) are made under a regulated framework.

As noted by the ESB on page 71 of the consultation paper, the unit commitment for security process supports the provision of system strength by providing certainty around commitment of synchronous generators in advance of determining what is required by the system. The UCS will clearly complement the ESS MDI and provide valuable information on gaps in system strength dynamically.

4. Given future uncertainties and the potential pace of change, what level of regulatory flexibility should AEMO and TNSPs operate under? What are the benefits, risks, and costs of providing greater flexibility? What level of oversight is necessary for relevant spending? Are there specific areas where more flexibility should be provided or specific pre-agreed triggers?

Responsibility for levels of security in the NEM properly rests with Reliability Panel and rule change processes administered by the AEMC. Allowing too much latitude for AEMO and TNSPs may be inconsistent with the determination of the Reliability Panel regarding acceptable levels of system security and the costs involved in achieving it. Trials will be important to test the effectiveness of new technologies, but Alinta Energy does not support granting AEMO and TNSPs the right to determine standards outside of the Reliability Panel's direction. While there is scope for flexibility, this should be subject to scrutiny and limits determined independently.

4. Scheduling and ahead mechanisms (MDI-D)

Alinta Energy supports the ESB's view that a compulsory ahead market should not be progressed as part of the post 2025 initiatives.

1. The ESB is interested in stakeholder feedback on the options for the ahead mechanisms we have outlined. Are there additional options? Are the options for a UCS and UCS + ahead markets fit for purpose?

Option 1 has merit at this stage. A UCS will provide more structured and systematic guidance to AEMO on the identification of system security and reliability shortfalls and the need to intervene as a last resort. Options 2 and 3 are premature, and how they might coordinate with ESS markets is not obvious. In the medium term, Option 1 would seem to offer the greatest return and the value of system service ahead scheduling and/or an integrated ahead market can be assessed further when the improvements from ORM and ESS procurement have been tested and realised.

2. The ESB proposes to develop the UCS tool for implementation. Do you support the UCS concept? What factors and design features should be considered for detailed development?

As noted above, Alinta Energy broadly supports the concept and need for UCS and notes the benefits of the approach set out by the ESB in section 7.2 of the consultation paper. We do not have specific comment on the factors or design features required but support the assessment of ahead mechanisms set out in Creative Energy Consulting's report.⁴

5. Two sided markets (MDI-E)

Alinta Energy supports participation of distributed energy resources in the energy market where it is economic to do so and notes the growing role and impact of DER and its continued growth. In recent years, several proposed reforms have sought to encourage greater demand side

⁴ Creative Energy Consulting (June 2020), <https://www.energycouncil.com.au/media/18717/20200630-cec-final-report.pdf>

participation (notably the WDRM and the Multiple Trading Relationships rule change).

Furthermore, rule changes and reforms that complement DER participation have been made as noted by the ESB on pages 91-92 of the consultation paper - in particular the five-minute settlement rule change, AEMO's DER register, and the introduction of the Power of Choice rule change to support advanced metering. All these reforms have or will contribute to the integration and participation of DER in the NEM.

Recent rule change proposals that may change the way some DER (particularly small solar photovoltaic systems) interact with the distribution network will also impact DER participation and investment. For example, recent rule change proposals from the Total Environment Centre, SA Power Networks and the St Vincent de Paul Society sought to address issues of equity and fairness when examining the impact of the growing amount of small scale generation in the distribution grid. The progression and impact of these rule changes may also require consideration in relation to the development of a two-sided market.

The WDRM will enable large customer load to participate in the wholesale market at scale. We believe the impact and effectiveness of the WDRM (and other recent reform initiatives) should be understood before significant further changes to demand side participation are undertaken.

1. What do you consider are the risks and opportunities of moving to a market with a significantly more active demand side over time? How can these risks be best managed?

There are significant opportunities in the long-term to moving to more active demand side participation in the NEM. However, as we note above, several significant reforms and rule changes have been or are soon to be implemented that complement DER participation in the NEM and their impact and value are yet to be understood. Before adding another layer to these changes (in the medium term), their benefits and costs of the current suite of rule changes should be measured.

Consumer protection (particularly for small consumers) is an important risk that will need to be managed. With the likely entry of more aggregators and third parties (who will perform an important function coordinating and contracting services from DER), it is critical that consumer protections are maintained and a two-tiered system does not emerge whereby some consumers have a higher level of protection (at a higher cost) than other consumers.

If the substantial suite of small consumer protections inhibit the participation of DER, we recommend that the value of this regulation be assessed and if unnecessary, allow customers who chose to opt-out of those protections that they do not value or prevent them from participating actively as investors in DER. Such an approach should apply to retailers and third parties (e.g. aggregators) equally.

2. What are the barriers preventing more active demand response and participation in a two-sided market? What are the barriers to participating in the wholesale central dispatch processes?

The re-introduction of retail price regulation (through the DMO and VDO) has diminished both consumer and retailer incentives to tailor products and services that would encourage further DER participation. The spread of retail offerings has diminished (reduced price dispersion was a goal of both the DMO and the VDO which has been achieved) and in doing so has led to lowest common denominator outcomes and limited resources to invest in innovations targeting different market segments.

Such regulation also inhibits network and retail tariff reform with respect to cost reflective prices that would provide signals for DER investment and address challenges that impact on the wholesale market (such as minimum demand in the middle of the day due to excess solar output and insufficient demand).

Interventions at a state level and jurisdiction-specific regulation also presents a barrier to greater

DER participation, with inconsistent policies relating to connection, feed-in tariffs, price reform and even marketing approaches. The cumulative impact of derogations from the national consumer protection framework, the ad hoc and inconsistent introduction of new regulation and the burden of compliance and reporting limits the willingness of service providers (retailers and third parties) and consumers to invest in opportunities that would result in greater DER participation in the NEM.

3. Do you think any other near-term arrangements or changes to the market design can be explored in this workstream?

Given the interleaving nature of consumer protections, price regulation, network tariff reform and the rate of deployment of advanced metering outside of Victoria, Alinta Energy believes the ESB should focus on the impact of barriers to DER participation, which are often the result of existing regulation. If these can be addressed, this MDI could proceed in a more meaningful way.

4. What measures should be deployed to drive consumer participation and engagement in two-sided market offerings, and what consumer protection frameworks should complement the design?

As noted above, greater flexibility in the regulatory framework would encourage further DER participation for small customers. The minimum standards that apply to the retail energy market are often aimed at disengaged consumers, rather than those willing to gain the benefits of more active participation. The opportunity for consumers to explore DER participation further should not be discouraged by an increasingly onerous consumer protection regime.

6. Valuing demand flexibility and integrating DER (MDI-F)

1. Have any key considerations for the incorporation of DER into the market design not been covered here? For DER to participate in markets, it needs to be responsive. How should the Post-2025 project be thinking about enabling responsive DER?

We believe the ESB has comprehensively examined considerations necessary to incorporate DER into a future market design. The tension between regulated and market-based solutions to integrating DER are a significant and complex part of assessing options for DER integration. Technical standards (for example imposed by a distribution network service provider) need to be balanced against the attractiveness for an owner of DER to participate in the market in a flexible way.

While integrating DER is a very important element of the post 2025 NEM design and operation, we believe it is premature for the ESB and stakeholders to devote significant resources currently to this MDI because:

- The breadth of issues that need to be assessed requires extensive analysis;
- The existence of split incentives of various market participants need to be addressed through market and regulatory mechanisms (for DNSPs/TNSPs, consumers, DER installers, retailers and third parties);
- The effectiveness (and ineffectiveness) of the existing regulatory framework (the NECF, the RIT-D, price regulation, jurisdictional derogations); and
- The impact of existing and forthcoming reforms relating to DER have not filtered through the market.

7. Transmission access and the coordination of generation and transmission (MDI – G)

Alinta Energy recognises that the NEM is undergoing significant transition. However, we do not consider that the introduction of the CoGATI model should be implemented as currently proposed, specifically:

1. The case for the proposed access model appears disproportionate to the identified issues given the wide range of risk management tools currently available to participants.
2. If implemented in its current form, the proposed model would have a material cost impact, undermine investor confidence and increase barriers to entry.
3. Alternative simplified approaches to transmission access reforms, consistent with first principles, should be considered.

Alinta considers that, when taken together, the actionable ISP and the development of the Renewable Energy Zones are appropriate mechanisms for improving the NEM's generation and transmission investment signals.

If the proposed reforms were to proceed, we would support the AEMC's proposal to delay implementation but consider five years would be necessary following the making of any CoGaTI rule. There is concern that the substantial investment in systems required by AEMO and market participants will conflict with several other MDIs in the mid-2020s. Given the material nature of transmission access reform, from an implementation perspective, it would be better to introduce CoGaTI later than 2025. We note that most of the benefits identified by NERA its analysis accrue after 2030. Ideally, if the CoGaTI rule change is made, it would be implemented following changes to accommodate the RAM and ESS MDI changes.

We support the AEMC's view that existing transmission access rights be transitioned over time, though believe a ten, rather than five-year period with sculpted reduction in the level of financial transmission rights be considered.

Further comments on CoGaTI design features and its development are discussed in response to the AEMC consultation EPR0073.