19 October 2020

Dr Kerry Schott AO
Chair
Energy Security Board
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Dear Dr Schott

Response to Post 2025 market design consultation paper

Thank you for the opportunity to respond to the Board's Post 2025 Market Design Consultation Paper (the Consultation Paper).

EDL is a leading global producer of sustainable distributed energy. We own and operate nearly one hundred power stations across Australia, North America and Europe, both grid connected and remote and using wind, solar, gas, liquid fuels and storage. We have a thirty year reputation for developing innovative, tailored clean and green energy solutions.

EDL supports the secure, reliable, affordable and sustainable supply of electricity to meet the needs of Australian households and businesses. The description that we gave in response to the Issues Paper one year ago about the challenge the industry faces remains apposite. The market today is different to the one it was originally designed for with higher levels of vertical integration, material and increasing penetration of variable renewable energy, a faster rate of technological change, a move towards decarbonisation, flat demand and greater price-taking from global fuel markets.

The Board's Post 2025 project objective is to develop a market design that delivers secure and reliable power at least cost to consumers[1].

There are two issues EDL believes should be addressed in considering the options on market design:

1. What are the actual objectives in hard numbers in terms of security, reliability and price and will the proposed options address these? Can these objectives best be met by the proposed design?
2. What effect will the proposed market designs have on competition? Will the designs advance competition or will they reinforce the currently highly vertically integrated market?

1 Consultation Paper, p 7.

Objectives

At the heart of any market design are the objectives it is trying to meet and how those objectives can be achieved together. For example, if the objective was 0% unserved energy and a price of less than $40 MWh, it is unlikely any market design will work. That is, the objectives won't be capable of being met by non-government businesses and governments will need to invest or underwrite investment. In this example, undertaking and implementing a full market design would cost all participants and thus consumers more than the current status quo. While acknowledging it isn't always clear what the current set of objectives are, we consider it important for the Board and ultimately the Ministerial Energy Council to agree what the relevant set of scenarios are, publish them and test the proposed design against them. As noted, the absence of this test risks increased consumer costs.

Competition

The high level of vertical integration is a key National Electricity Market (NEM) characteristic, one that has been prominent in a range of recent related reviews and policies including those recommended by the Board[2]. It is a crucial feature when considering whether a market-based or more centrally planned approach is likely to be the most efficient and effective post 2025 design, particularly in relation to resource adequacy (see further below).

Efficient markets require sufficient competition. The continued development of market designs that assume the NEM has adequate competition would be concerning, particularly when reviews such as the ACCC's recent Retail Electricity Pricing Inquiry highlighted that this isn't the case. Schemes such as the Underwriting New Generation Scheme and other State schemes have sought to limit the involvement of highly vertically integrated parties and thus offer the opportunity for new entrants or the expansion of non-vertically integrated parties. In an efficient market these actions wouldn't be required and the design would address this.

As an example, choices on items such as centralised versus decentralised procurement go to the heart of whether the status quo will remain or whether the market design will be used to facilitate competition. A centralised procurement model enables independent parties to receive a capacity agreement to underpin their investment. In the decentralised case, this capacity will most likely be provided by the large vertically integrated players (who hold most of the demand) as has been the case with the Renewable Energy Scheme or customers (who are often unwilling to commit beyond the 3 to 5 year term).

This issue appears to have received little consideration in the discussion so far. Unless the high level of market concentration is properly addressed, the Board's design choices risk delivering only variations on the status quo rather than the secure, reliable and affordable energy that is the review's objective.

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[2] The ACCC's *Retail Electricity Pricing Inquiry Final Report* (2018), the Board-recommended Retailer Reliability Obligation, the Australian Stock Exchange's voluntary market making scheme and the Government's Prohibiting Energy Market Misconduct ("Big Stick") reforms.

General

Broadly, EDL's view in response to the Issues Paper was that, rather than try to design a bespoke system to address the above changing market characteristics, it would be preferable to adopt a suitable design from another jurisdiction as quickly as possible. We suggested that the UK and Irish market models would be a good starting point as both offer:

- transparency and openness
- an active contract market
- the efficient delivery of energy via the various short term markets
- the efficient delivery of power system security via essential energy (ancillary) services
- the efficient delivery of reliability via a technology-neutral capacity auction process.

The Consultation Paper is structured around a set of Market Design Initiatives (MDIs) that explore high-level options for delivering these (or similar) features as well as further improvements in demand-side participation and transmission access.

In summary, subject to the additional tests and considerations proposed above being implemented, EDL:

- supports:
    - the further exploration of a centralised capacity mechanism
    - the introduction of essential system services (ESS) with an evolutionary approach to procuring them as outlined in the Consultation Paper and
    - a Universal Commitment for Security but
- does not support:
    - additional mechanisms to address ageing thermal generation until the above reforms have had a chance to operate or
    - the proposed transmission access reforms.

These matters are discussed below.

Resource adequacy mechanism

The Consultation Paper sets out the Board's interest in exploring options to strengthen both short and longer term generation investment signals. EDL supports this. We consider short-term signalling to be less of an issue, noting that the Consultation Paper:

- identifies a range of steps that have already been, or will shortly be, taken to address this and
- proposes the introduction of ESS which, subject to their detailed design, are likely to further improve short-term outcomes.

With respect to longer-term signalling, the Consultation Paper proposes exploring the options of an operating reserve mechanism, expansion of the Retailer Reliability Obligation (RRO), a decentralised capacity mechanism and consequential adjustments to the Reliability and Emergency Reserve Trader (RERT) or interim reliability reserve. EDL agrees

with the view expressed in the Consultation Paper that an operating reserve is less likely to be effective in improving long-term signalling[3].

EDL supports the development of a capacity market mechanism. As noted, the market has changed and will continue to change further. EDL agrees that the existing energy only market no longer addresses nor values effectively the requirements of a market with high intermittent generation. We also note that instances of very high prices sustained over long enough periods to trigger investment (the current market design) are not aligned with community expectations and that the community would prefer stable prices over time.

EDL does not however support the Board's view that a centralised capacity mechanism should not be further explored. The Board states:

- it would involve a more fundamental shift in risk allocation from generators to consumers
- it doesn't utilise the market's ability to innovate or deliver efficient price
- there is limited evidence of its success overseas and
- it presents no obvious benefits over a decentralised capacity market.

EDL submits that the Board should continue to explore the option of a centralised capacity mechanism. EDL is concerned that the Board's reasons may not have been informed by a meaningful assessment of the likely implications of the high level of vertical integration on the appropriate design choice. At their core, those reasons appear to be based on the premise that, while NEM wholesale market competition is imperfect, it is still likely to be more efficient than a more centrally planned approach which is assumed to be burdened with inefficiencies resulting from information asymmetry and conservatism. This premise should be properly tested.

The high level of vertical integration in the NEM is clear[4] and, as also referred to above, has driven policy choices designed to address this issue in other aspects of the market. It has also been influential in the designs of recently introduced (or refined) centralised capacity markets in other jurisdictions such as the United Kingdom, Ireland, Italy Poland and the Western Australian Wholesale Electricity Market (WEM).

Careful design is required to ensure that a centralised capacity market can be effective and efficient. This includes a focus on refining that design as the industry continues to evolve as has been the case with most of those examples. But this is also true of the design of *decentralised* capacity markets such as the one operating in France[5].

Evidence of changes to aspects of those designs does not mean that a centralised capacity market can't be as efficient as a decentralised model. Indeed, the experience of the United Kingdom and Polish markets has been strongly positive[6]. The main issue that has occurred with capacity markets, whether centralised or decentralised, concerns small markets

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3 Consultation Paper, p 40

4 See, for example, ACCC 2018, Chapters 2 and 3.

5 MontelNews, French regulator mulls capacity market reform (October 2019).

6 See, for example, the UK Capacity Market Five Year Review (2019) and Economic Consequences of the Polish capacity market (2020)

involving a limited number of providers (for example, the Irish market[7] and the WEM). This is less relevant to the NEM although there are ways this could be addressed such as via US-style rules to mitigate "unfettered" bids arising from insufficient competition[8].

As to information asymmetry and a conservative procurement bias, an independently set reliability target, a knowledgeable system operator acting as procurer (and system operators will necessarily become only more knowledgeable as the industry decentralises) and the proper accountability of the system operator for those procurement decisions should result in no or little difference in risk.

Essential system services

EDL agrees that the changing supply technology mix coupled with a more active and varying demand side requires a broader range of essential system services beyond those currently provided. We also agree:

- that, where feasible, these services should be provided on a market basis or, where not feasible, via a structured approach
- that market-based services should be co-optimised with the energy spot market where technically and commercially feasible, noting that they should also be able to be hedged to maximise efficiency and
- with the Board's initial assessment that frequency control and operating reserves are suitable for market-based provision, that a market-based approach to inertia should be explored and that a structured approach to the provision of system strength currently appears more suitable.

Ahead mechanisms

EDL does not see strong evidence that the current ahead mechanisms and operational practices deliver inefficient energy outcomes. The concern is more to do with power system security. As noted above, EDL supports the introduction of ESS to address this and, to make the application of ESS more effective, also supports the adoption of the Universal Commitment for Security (UCS) as proposed by the Board. Further evolution of ahead mechanisms (for example, co-optimisation with energy) would depend on experience with the UCS. It is EDL's strong preference that any such further developments would continue to be based on voluntary participation unless there was very clear case that a change to mandatory participation could be demonstrated.

Ageing thermal generation

EDL agrees with the Board that the combination of existing mechanisms such as the Notice of Closure Obligation and the implementation of the MDIs along the lines set out above should mean that the risk associated with future major thermal generation retirement becomes a residual one. Any further action should only be taken once the market has had a suitable period of time working with the new arrangements.

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7 E. Lazaryzyk and L. Ryan, Transition to a Capacity Market: A Case Study of Ireland (2019) and WA Government Energy Transformation Implementation Unit, Allocation of Capacity Constraints in a Constrained Network: Design Proposal Working Paper (2019).

8 FTI Consulting, *Resource Adequacy Mechanisms in the NEM* (2020), p 64.

As noted in our response to the Issues Paper, EDL also notes that major load retirement, such as the decommissioning of an aluminium smelter, also has implications for energy flows and system security. The market design should therefore be responsive to both.

Two-sided markets and distributed energy resources (DER) integration

Effective and efficient two-sided markets and DER integration will both be important features of the future NEM. Work should continue to evolve their development noting that EDL does not see them as having the same current priority as the ESS, resource adequacy mechanism and ahead mechanism MDIs discussed above. Generally, EDL supports the broad, directional approaches outlined in the Consultation Paper and looks forward to seeing more detail regarding the specific steps and integrated work programs that will make up those approaches as part of the Board's efforts moving forwards.

Transmission access reform

EDL's view remains that the AEMC's proposed COGATI reforms (locational marginal pricing and "firm" transmission rights) would introduce unmanageable risk and cost to market participants and energy consumers, particularly at a time when the more pressing issues discussed above need addressing. EDL also has the following concerns regarding the NERA economic modelling:

- When assessing the net economic benefits of the proposed changes, the National Electricity Objective (NEO) should be used with wealth transfers excluded[9]
- The modelling that around 20 GigaWatts of inefficient investment would occur without the proposed reforms appears speculative[10]
- The modelled costs appear low for a major NEM IT redesign project with participant costs around one-sixth the costs the Australian Energy Council indicated participants are likely to bear for the five minute/global settlement changes[11]
- The contract costs seem to be purely the administrative/legal costs. However, the proposed changes will introduce significant uncertainty that will reveal itself as an increased cost of funds to the industry until the new arrangements are understood[12].

Given:

- priority should be given to addressing the market challenges discussed above and
- in the interim, it appears sufficient to address transmission access concerns via the initiatives already underway (including the Actioning the ISP reforms, Renewable Energy Zone (REZ) reforms and government network investment support programs),

EDL strongly submits that further consideration of the AEMC's proposed reforms should be deferred until beyond 2025.

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9 NERA Economic Consulting, *Cost Benefit Analysis of Access Reform: Modelling Report* (September 2020), p viii.

10 Id, p 29.

11 Id, Chapter 2.

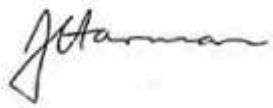
12 Id, Chapter 7.

Concluding remarks

EDL very much supports the Board's work and is encouraged by the progress that it has made over the last year. The next phase will be critical as the high level options discussed in the Consultation Paper are refined and evaluated at a more detailed level. EDL looks forward to participating in that stage of the review.

Please do not hesitate to contact Anthony Englund, Head of Regulatory Affairs at anthony.englund@edlenergy.com or on (0412) 039 860 should you wish to discuss any aspect of this submission.

Kind regards



James Harman
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