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Dr Kerry Schott AO
Independent Chair
Energy Security Board

Submitted by email: info@esb.org.au

Dear Dr Schott

MARKET MAKING REQUIREMENTS IN THE NEM – CONSULTATION PAPER

Origin Energy Limited (Origin) welcomes the opportunity to provide comments on the Energy Security Board's (ESB) Market Making Requirements in the NEM consultation paper.

Ascertaining liquidity levels is not straightforward, and the introduction of a mandatory MLO can have a distortionary impact

Origin notes the ACCC's recommendation for the implementation of a mandatory market marking obligation in South Australia (SA) is based on concerns that liquidity levels in the state are low. In deciding whether a market liquidity obligation (MLO) should be applied in SA, or as part of the National Energy Guarantee (NEG), the ESB should remain mindful of two key factors:

1. Determining whether liquidity levels in a region are sufficient, is not necessarily a straight forward exercise, and there are a number of indictors that should be examined. Additionally, where liquidity is deemed to be low, the underlying reasons for this should be evaluated, as this would have a direct bearing on the suitability of adopting the MLO. We note for example, that SA having a relatively high proportion of intermittent renewable energy and dependence on interconnection, is always likely to have a lower level of liquidity compared to other regions.

2. Introduction of a mandatory MLO has the potential to have a distortionary impact on the market with unintended consequences. Market making obligations instituted by Ofgem in the United Kingdom (UK), resulted in the drawing of activity away from other parts of the day into the market making windows. In addition, compliance costs have been shown to increase for market participants in volatile periods, due to prescribed bid and offer spreads.

A MLO is not required as part of the NEG

Origin's view is that a MLO is not a necessary feature of the NEG, and that it should therefore be excluded from the final design of the reliability obligation. This would further simplify the scheme negating the need for multiple triggers.

A MLO was first contemplated under the NEG given concerns that vertically integrated companies could have an advantage in complying with the scheme relative to other entities. This was primarily due to the original design requiring liable parties to enter contracts that had some physical backing. The scheme has subsequently been amended and this is no longer the case. Significantly, there is no direct link between a possible forecasted reliability shortfall at T-3 and a requirement for market making. Adoption of a MLO would not assist in alleviating a shortfall by bringing on new investment.

Any need for a MLO under the NEG has also been superseded by the ACCC's recommendation for the introduction of a MLO in SA, and for continual monitoring of liquidity levels in other regions.

If the ESB still deems it necessary to retain a MLO as part of the reliability obligation, we suggest that where the reliability obligation is triggered, the MLO requirement only be activated if liquidity within the region is deemed to be low, i.e. below some prescribed liquidity threshold.

Voluntary market making should be considered ahead of a mandatory approach

A voluntary market based approach is the most appropriate means of implementing a market making mechanism, as it would allow for the fostering of greater levels of liquidity, while helping to manage the inherent risks and costs faced by the market maker.

Voluntary market making has been successfully implemented in New Zealand (NZ) since 2010. Traded volumes on the ASX have increased and Unmatched Open Interest (UOI) exceeded the government's target by 2014.

In Singapore, a Request for Proposal (RFP) process saw market participants voluntarily bid to win market making services on the SGX.

Liquidity trigger

It is our expectation that the AER, as part of its responsibility in monitoring the wholesale market, will form a view on liquidity levels in each region. This work should be subject to industry consultation and the AER should consider multiple liquidity indicators as opposed to a single 'bright line' testing approach.

Origin notes that the Consultation Paper references a liquidity test where contract traded volumes is measured against electricity demand. While this is necessary in forming a view on liquidity, it may not be sufficient. The AER should also look at other factors such as bid offer spreads; the underlying reasons for low (or changing) liquidity levels in a region; and the other avenues available to market participants to manage risk such as PPAs and settlement residue auction (SRA).

The appendix attached sets out our views in greater detail, including responses to questions posed in the Consultation Paper.

If you wish to discuss any aspect of this submission further, please contact Kian Mohammadieh at Kian.Mohammadieh@originenergy.com.au or on 02 9503 5970.

Yours Sincerely,

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Appendix

Answers to Questions

How much time would participants need to prepare for the implementation of the obligation?

Origin envisages that 6-12 months would be required to ensure that participants have sufficient time to review and comply with obligations. This timeframe also allows for adequate set up, change of procedures and recruitment of additional resources as required.

What products should be offered by obligated parties when the MLO is triggered by the liquidity test?

As the majority of transactions on the market are quarterly baseload futures, these should be the products offered by the obligated parties. These are the most traded, as such, the market has indicated a preference for these as the most appropriate common hedges for energy risk. These should also be allowed to be presented in Calendar or financial Year strips.

To ensure that obligated parties are not disadvantaged, intra-quarter hedges should not be allowed, as it is likely to result in moral hazard. While having knowledge of an obligation for some parties to make a market, non-obligated participants could for example be encouraged to increase their risk exposure to pool outcomes, knowing that if their expectations do not eventuate, they would have the safety net of the market maker which would allow them to cover their position.

What process should be used to determine whether sufficient liquidity exists in a region to satisfy the liquidity test? What factors should be considered for the liquidity test in relation to a market making obligation?

Conceptually, liquidity is where a trade can occur quickly without affecting the asset's price. Notwithstanding this definition, generally, there is no single definitive test for determining the level of liquidity within a market. Additionally, the underlying reasons for any perceived low level of liquidity is important, particularly in the context of considering a potential regulatory response. In the case of South Australia, the higher dependence on non-firm renewable generation and interconnected energy makes it more difficult to underwrite firm financial hedges, which increases the likelihood of lower liquidity levels in that region compared to others.
Given this, the AER should look at a combination of factors in forming a view on liquidity, prior to market intervention.
Some of these include:

- Churn – (the number of times electricity which is generated, is traded compared to physically traded across exchanges and possibly OTC);
- the Volume of trades in the market;
- Price volatility (measured over a sufficient period);
- bid/ ask spread levels;
- number of active counterparties who execute trades (over a sufficient period);
- the number of transactions (over a sufficient period);
- trading costs for participants;
- dynamics of the market / structural reasons for illiquidity; and

Additionally, it is important to bear in mind that ultimately, contract market liquidity is a useful indicator to the extent it sheds light on the ability for market participants to manage risk. Other products provide a similar risk management role including settlement residue auctions (SRA's) and PPA's. These should be counted towards liquidity in a region as they create 'synthetic generators', forming part of the contemporary energy market, particularly as more renewables enter the market and if there is greater interconnection across the NEM.

What period should be covered in the event of a liquidity trigger?

The period most appropriate to be covered in the event of a liquidity trigger is 18-21 months from the commencement of the next quarter. Since a 24 month window is the average duration of retail contracts, accounting for the maximum of the remainder of a quarter plus 21 months would get to the end of this window. Obligated participants must have clarity on input costs, to back trades and 18 months could be the most optimal period to ensure this is reflected in pricing with minimal risk premium. Obligated participants require a clear idea of volume and price of any inputs such as fuel costs and transportation capacity. A lack of clarity around this would result in added risk to prices made outside of a 24 month period (from the day the party is being obligated to make a price), leading to inefficient outcomes, as this could be priced into market making bids/offers.

Are there circumstances that would require a different treatment between the triggers and/or resulting obligations? & how should both triggers interact?

Origin does not consider that a forecast reliability shortfall (i.e. reliability trigger) should have any link to a requirement for making a market. Given this, a requirement for a MLO should be removed from the NEG design, negating the need for multiple triggers. Market making cannot help resolve any forecasted shortfall in the market. If the ESB still deems it necessary to retain a MLO as part of the reliability obligation we suggest that where the reliability obligation is triggered, the MLO requirement would only be activated if liquidity within the region is deemed to be low, i.e. below some prescribed liquidity threshold.

What circumstances might necessitate a review of the MLO?

If a mandatory MLO is implemented, its performance and impact on the market should be considered periodically, potentially every 1-2 years. A review should therefore not be contingent on a predetermined set of preconditions. As indicated earlier in this submission, our preference is for the establishment of a voluntary market making mechanism, which again would be subject to periodic review.

Some of the areas of focus under a review of a MLO could include:

Overall trading activity: In the UK, over a trading day, trading activity reduced in all time periods outside the market making period. If any reduction in liquidity, outside of the market making period, limits trading opportunities, this may become a disincentive for new participants to enter the market. Another issue, is if in the event of volatile or short term spikes, a lack of liquidity outside of the market making period could be a cause for concern around the market's ability to operate efficiently and as such, the MLO should be reviewed.

Compliance costs: The UK also saw an increase in compliance costs on obligated participants, due to prescribed bid/offer spreads when prices were moving significantly and rapidly. This was most pronounced at the start of the market making window.

Does the existence of both a generator and retail licence within related corporate groups adequately capture all large, vertically integrated retailers?

Any market mandatory market making obligation should not be limited to vertically integrated entities. Some participants that have generation in regions are not considered large retailers, rather they are predominantly generating businesses with small retail books. There are also merchant generators, who don't hold retail licenses, but have significant generation capacity, and therefore well placed to provide further liquidity to the market.

Broadening the obligated parties under any market making requirement beyond vertically integrated firms is prudent, given that there are other factors besides vertical integration that can impact liquidity in a region. The level of vertical integration in South Australia is not materially higher than in New South Wales, yet New South Wales does not have the same volume and bid spread metrics as South Australia. Further, Queensland has almost no vertical integration, however there is little difference between the volumes and spreads between this region and New South Wales.

In addition to a minimum generation size threshold, should there be a minimum retailer size market share threshold? How could this be defined?

Market making mechanisms should focus on generation capacity and concentration in a region. Setting a minimum retailer size market share threshold, could result in large generators, with small retailer market shares, being excluded as an obligated participant,

Which of the three broad methods to determine generation market share is appropriate?

The most appropriate method to determine generation market share would be generation registered capacity in a region by generation license. The most appropriate selection, would be selecting a generator based on a set generation size threshold (say >15% share in a region) or even capturing a certain aggregate percentage of generation in a region (say 60% of a region). Looking at generator size plus fuel type and control of the asset ensures that the most logical market participant is selected, as they are the participant best placed to consistently make a market. Setting a minimum number of obligated participants in a region requires a process of more regular reviews of the appropriateness of participants in each region, due to changes to market structure. Additional requirements to review and alter participant status could lead to market inefficiencies.

Should the Calculation of generator market share in a region be restricted to scheduled generation or should de-rated semi-scheduled generation also be included?

The calculation of generator market share in a region should be restricted to scheduled generation. If semi-scheduled generation is also included, this would incorporate wind or solar generation, which is not firm enough to back contracts in the market.

In addition to generator ownership, should access to trading rights also be used in the calculation of generator market share?

Trading rights should not be included in the calculation of generator market share, as market making should be undertaken by generators that control dispatch. These are the participants best placed to ensure that contracts are sufficiently backed and ensure integrity in market offers. Trading rights may not be enough, as utilising trading rights in the calculation of generator market share could lead to having obligated participants without sufficient control over capacity, to make markets. Consideration should also be given to the ramifications of market making, changes in obligated participants on change of law clauses in trading rights.

Are there other methods that should be considered to determine obligated participants?

A voluntary market based approach is the most appropriate means of implementing a market making mechanism as it would allow for the fostering of greater levels of liquidity, while helping to manage the inherent risks and costs faced by the market maker. Two examples of such approaches:

Singapore: Under the Futures Incentive Scheme, the Energy Market Authority contracted 6 market participants to provide market making services on the SGX for 2.5 years. Determining obligated participants was achieved by holding a Request for Proposal. This ensures efficiency of the services as only the most appropriate and least cost market participants are selected. Payment for services assists in covering costs. The costs on obligated participants are not only direct, such as time, resourcing and increase in exchange fees when executions are taken, but also risk. Speculation risk, especially at the

most volatile times, which by its very definition is the most constrained time, would see obligated participants having to absorb or artificially price this in, as they are forced to make markets.

New Zealand: The four largest generators voluntarily began market making on the ASX for baseload futures products.

Possible design of a market making mechanism

Is it appropriate for the MLO to be satisfied through alternate, formalised market-making arrangements? Should there be any constraints? How can the AER be satisfied that a participant is meeting its obligations under the MLO? Is it appropriate for the AER to rely on third-party assurances such as that provided through alternate market making agreements?

As indicated earlier in this submission, Origin supports a voluntary market making approach, which has been proven to be effective in jurisdictions such as New Zealand.

Table 1 – Market making design features

Feature	Optimal level	Reasoning
Alternative to centrally cleared platform	No	• The most efficient and quickest way would be for a proven exchange to be used as the platform for the MLO. Exchanges that are currently in operation already have the necessary systems set up to facilitate trades and ensure there is appropriate credit provisions of counterparties.
Volume	2MW-5MW	• SA, due its market size requires small volumes. Smaller volumes could work in other regions; however 5 MW would be ideal as it is the current standard set. • Any volume larger than 5 MW may make it more difficult for obligated participants to cover their position or trade-out, especially if multiple market making bids and offers are to be made in a window.
Bid/ Offer Spread	5%-10%	• UK and NZ both have 5%. This is the most appropriate spread as it ensures that it is not too difficult for obligated participants to price in times of significant volatility. • An inflexible limit on obligated participants has costs and risks, as has been seen in the UK. Upon review by Ofgem, it was found that obligated participants wore unfair risk and extra costs in the opening of market making windows, especially in periods of high volatility, due to information asymmetry. • With information asymmetry, obligated participants without sufficient spread and having uncertainty around price, are forced to wear more risk, unfairly benefiting speculators. Consideration should be given to having a higher spread (say 10%) when prices are low (compared to average) or highly volatile, ensuring obligated participants aren't disadvantaged by having to make markets in less certain times.
Market Making window	Half hour between	• The market making window should operate in the late morning (around 11am)

	10:30-11:30am	• In the UK, the creation of market making resulted in most trading moving to the market making window and other periods becoming more illiquid. If such behaviour was replicated in the NEM, then having a window at the end of the day would drive most trades to the last half hour. Pushing a potential 6 hours of daily trading opportunity to one last half hour, would in the longer term, be a negative outcome on the efficiency of the market. • Market making transfers risk onto the obligated participants. Setting the window early allows these participants an ability to hedge out and account for positions that same day, increasing the chances of spreading out trading throughout the day. • There is also a risk of generator outages or market sensitive information halting market making. If the window is left to the end of the day and such an event occurs during this time, then it is possible very few trades will occur for that day, as the majority of participants were waiting for the market making window. An earlier window enables natural trading to still occur in the rest of the day, if a trading halt inhibits bids/offers during the morning market making window.
Refreshing	Obligated 1 refresh once trade is executed	• Once a market making trade has been executed obligated participants should not be required to post additional prices more than once after, as this would increase risk and portfolio stress for the market maker. • Without a limit on executed trades, obligated participants may be unfairly left having to find additional generation volume for the periods that they've had to make a market. • Obligated participants should be allowed to refresh prices prior to execution, to account for changes in information, as per regular market mechanics. • Market making prices and refreshed prices shouldn't be linked to any last executed price, as this forces obligated participants to make hedges with prices, in a market which has accounted for new information. Non-obligated participants could transact and gain an unfair advantage. • Limiting refreshing enables market participants to act as they would, freely in the market and not stifle the operation of the market further. Consideration should be given to whether not having these requirements would lead to obligated participants taking such risk considerations into account when making the initial bid/offer. This would artificially distort obligated participants behaviour and lead to inefficient market outcomes, as market participants may be paying additional risk premiums, which would otherwise not be required if the market was allowed to operate freely.
Limits	10% of the generators registered capacity in	• There should be a limit of 2 taken trades from an obligated participant, in the window.

	any given month or 10% of the forward-looking availability for the applicable illiquid time period	• Consideration should be given to limit the total volume offered by a market maker in a specified period (say a month). • A limit on total volume traded for a month should be considered. Once an obligated participant has reached the volume limit for a month, their obligation should cease until the next period begins. • Since obligated participants would have to find sufficient generation capacity to back their trades, having no limits or a volume limit that is too high would make it difficult for obligated participants to match their portfolio and increase risk. The obligated participant may either have to: o buy this volume back from other obligated participants – nullifying the benefit to small retailers as it may trigger a cycle of higher prices; or – o be forced into a short position, taking undue spot market risk. Forcing more spot price risk onto the largest generators in the NEM could bring in systemic risk. • Consideration should be given to how insufficient limits may also force obligated participants to breach their own internal risk limits.
Market Sensitive Information	Obligated Participants to be exempt from market making	• Anything that affects an obligated participant's ability to make prices, for e.g.; o trading Halts, o possession or release of market sensitive information, o unplanned unit outage information, o anything else of a significant nature, should remove the obligation on them to make a market for the period the information is in effect (as per normal market operation). • Such information, being price affecting, could also affect obligated parties bids/offers and give an unfair advantage to other parties who could execute on this.

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