Electricity Authority
Via email: HME.feedback@ea.govt.nz

12 December 2019

Discussion Paper – Hedge Market Enhancements (Market Making)

Mercury welcomes the opportunity to provide comments to the Electricity Authority (Authority) on its discussion paper. The following provides our views to the paper and the proposed market making changes put forward by the Authority on 29 November 2019. Mercury broadly supports these changes and suggests some modifications for the Authority's consideration. Mercury supports as a priority a move toward a rules-based incentivised scheme as delivering a sustainable market making regime which will deliver at least cost and in the long-term interests of consumers.

Mercury agrees a liquid and robust electricity futures trading market is critical

The electricity futures market provides an essential role in promoting efficient outcomes in the New Zealand Electricity Market. It enables the management of spot price risk and informs a wide range of investment and operational decisions through the discovery of a forward price curve.

These benefits accrue to participants across the entire supply chain, whether they are actively involved in trading electricity futures or not. This includes large electricity users, independent retailers and independent generators who may hedge spot price risks using futures contracts directly or benefit from efficient price discovery in negotiating counter contracts for differences (CfDs). The forward price curve also signals the need for future generation, distributed generation or demand response investments.

Mercury agrees with the views of independent retailers that a liquid and deep futures market is critical to enable effective retail competition. Mercury is committed to improving the current arrangements and contributing to a more sustainable outcome. This will benefit all market participants that rely on efficient price signals from the futures market.

The current market making arrangements are not sustainable

Mercury raised concerns that the changes to market making obligations implemented on by the ASX in early May would not improve the sustainability of the hedge market. Reducing the volumes required to be priced in the monthly contracts in the front two quarters has reduced traded volumes in longer dated contracts. This is due to participants having limited ability to manage their risk as their positions come closer to maturity. As a result this has reduced traded volumes of options leading to a negative feedback loop because participants, such as financial institutions who previously provided liquidity by actively trading contracts and options right along the curve, appear to have pulled back their trading activity or have completely exited the market.

The consequence has been declining confidence and liquidity across the entire futures curve with large price movements now occurring on the back of low traded volumes.

The proposed variations by the Authority will assist but modifications are required

On 29 November 2019, the EA notified the Chief Executives of the four market making companies of proposed variations to be made mandatory under urgency to market making arrangements, if not voluntarily implemented. Mercury supports the Authority's move to improve ASX Futures market confidence. This is a pragmatic interim step while the Authority implements more sustainable market making arrangements consistent with the recommendation in the Electricity Price Review (EPR). In our view, introducing mandatory code should not be necessary, but if it is, Mercury offers to work with the Authority to ensure it is fit for purpose and avoids unintended consequences.

Of most relevance to this submission, the letter requested market makers to:

- reduce the bid-ask spread to no more than 3%
- increase the market making volume of all contracts to 3MW before the end of the calendar year.

Mercury supports the decision to increase the volume of quarterly contracts to 3MW but considers the obligation on the monthly contracts is overly onerous. Mercury supports a reversion to the previous volumes of 3MW for all quarterly contracts and 2MW for the monthly contracts. Increasing the quoted size and reducing the spread in the monthly contracts increases risk significantly and this will have margin and risk limit implications. Ironically this may cause more price volatility as market makers may be forced to more regularly adjust positions. The Authority should also note that if the proposed scheme becomes the benchmark then the costs of an incentivised scheme will be higher.

Information Disclosure Rules (particularly around Gas) need urgent clarity

A critical and now urgent matter the Authority needs to address is the asymmetry of gas availability information for thermal power generation. Two of the existing market makers have, by virtue of owning gas fired power stations, significantly more information about the future availability of gas which results in an unfair advantage when trading futures contracts. We support the initiative by the Gas Industry Company (GIC) and the Authority to review and improve gas disclosure, but this needs to be fast tracked to ensure those without this information remain confident that they are competing on a level playing field. Any perceptions of information asymmetry (and a repeat of previous activity relating to trades being executed where one party knew something the other did not) will immediately undermine confidence in the market and lead to the withdrawal of market making services.

Implementing a rules-based incentivised market making scheme should be prioritised

Mercury strongly supports a transition to a rules based incentivised market making scheme as the most sustainable, effective and efficient long-term option for the New Zealand electricity futures market.

We support the principles put forward by the Authority of reducing the need for regulatory intervention and enabling the market to provide services at least cost. While we broadly support the Authority's proposed changes to the current regime continued regulatory intervention will not deliver least cost and sustainable market making arrangements and will have the same issues as previous changes to the voluntary regime.

Implementing a market based compensated scheme would ensure that the parties best placed to provide market making services are incentivised to do so. If any current market maker elected not to market make, they would (effectively) compensate another entity to provide the service on their behalf. The market will function significantly better if market makers are incentivised rather than forced to trade.

Critical to the success of any incentivised regime is to establish ahead of the process various rules for participation including the number of market makers, appropriate spreads and volumes, payments for compliance (and penalties for non-compliance). Mercury has worked with the industry and ASX previously to develop such a "strawman" structure and process for establishing and operating an incentivised market making program and would be happy to share this work with the Authority.

Incentivised market making will have significant net benefits for the electricity market

As noted in the opening paragraphs the electricity futures market provides vital benefits right across the entire electricity supply chain. Mercury intends to undertake a more detailed cost benefit analysis but as an indication, if the outcome of the well-designed rules based incentivised market making scheme was a conservative reduction of $1/MWh in the forward price curve, this would result in around $40m in annual savings by consumers.

Mercury has not quantified the costs required by participants to provide market making services but, as the discussion paper outlines, losses by some current market makers of $1-4m pa with higher losses during more volatile market periods have been reported. We understand Meridian have publicly stated the annual cost to them of their market making activity in FY18/19 was $6.7m. We would anticipate market making costs to be in the range of $20m annually, depending on the rules and risk settings established, which would be around half of the annual benefits delivered by more efficient futures prices.

Beneficiaries should fund an Incentivised Market Making scheme

Mercury strongly supports the view that a beneficiary pays model is best suited to fund the cost of an incentivised market making scheme. Given the level of interest in improving market making to date from independent retailers we conclude that such entities view themselves as significant beneficiaries from reform. It would therefore be reasonable to advocate that all retailers should be contributing to the costs of providing market making services. The most effective and efficient means for achieving this outcome in Mercury's view would be a broad-based levy on all retailers in proportion to their retail load (including spot customers' load). The larger gentailers will therefore continue to cover the majority of the cost of market making given their large market share.

Requirements of a mandated regime if an incentivised scheme is not favoured

1. Expanding participation in market making

The discussion paper outlines that as an alternative to incentivising market making the Authority could also consider mandating parties to provide market making services under the Code. While Mercury does not support mandated arrangements, if this option is to be progressed, we strongly advocate that a wider group of participants be included. Mercury considers Trustpower, Todd/Nova and Pioneer/Pulse should all be required to undertake proportionate market making as they all share features with the existing market makers (i.e. vertically integrated, with some scale).

Mercury considers market making obligations could reasonably be scaled back for additional market makers. While the level of bid/offer spreads would need to be consistent the volumes required to be offered could be less (e.g. incumbent market makers required to offer 3MW with newer market makers offering 1MW).

The discussion paper also considers the option of implementing a scheme that shares the costs of market making more widely amongst the beneficiaries of market making. It suggests an obligation to post prices could be extended to all generators and retailers/consumers above a certain size threshold. Mercury would support consideration of such a proposal.

2. Implement an effective measure of Portfolio Stress

The inclusion of a "Portfolio Stress" type clause is an essential element of any mandated market making program. It will not be acceptable that a company that is genuinely facing significant financial stress from providing a market making service has to continue to do so. However, the bar for making a claim of portfolio stress and withdrawing from their market making obligations needs to be considerably higher than present.

The discussion paper states:

> "Since the time the EPR Panel considered this matter the voluntary market making arrangements have evolved to be more robust to stress events. For example, they were amended so that market makers could pull back from the market five times each month, instead of being able to pull back whenever they claimed financial stress."

This statement is factually inaccurate; the current market making arrangements are no more robust to stress event and there is no correlation to performance as neither the market nor market makers have faced the same level of stress as experienced in Spring 2018. It is not accurate to suggest these new opt-out arrangements would be sustainable in place of a more explicit portfolio stress clause.

While Mercury supports the option in the Authority's proposed emergency code of spreads widening to [10%] in the event that national hydro storage breaches the Emergency Electricity Risk Curve (formally the 10% Hydro Risk Curve), or through certain price levels, it does not consider this goes far enough.

Mercury recommends that the option of opting out of market making (for any period of time) remains open to market makers but is supported by a letter from the Chair of the Board of the company claiming Portfolio Sstress to the Authority Board which outlines in detail the reasons for the "Portfolio Stress" being called. We believe this would escalate the decision making in each organisation to a level that will drive companies to manage their risk far more effectively to avoid such outcomes.

Please contact Nick Wilson at nick.wilson@mercury.co.nz or on 09 5803623 if we can provide further information on the content of this submission.

Yours sincerely

Phil Gibson

General Manager – Hydro Wholesale

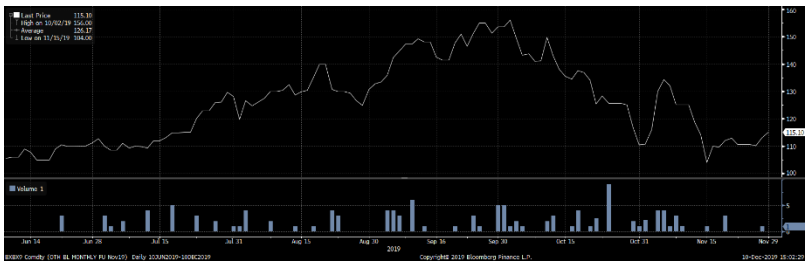
Attachment A: Response to Questions

<table>
<tr><th colspan="2">Question</th><th>Comment</th></tr>
<tr><td>Q1:</td><td>Is market making fragility a distinct problem from considerations of bid-ask spread and volume?</td><td>Liquidity in particular, rather than fragility, can have a detrimental impact on trading activity. The lower the expected available liquidity in the front end of the curve, the smaller the positions that will be entered further down the curve. This issue can become circular: a trader puts on smaller positions down the curve as they have little confidence in liquidity in the front quarter which then leads to less liquidity in the front end as he has less business to do when contracts move to maturity.
 

[11]
Mercury has been scaling back its trading and portfolio positions due to the lack of front-end liquidity and there is an increased wariness of over selling due to a lack of liquidity to exit positions.

See our comments in our cover letter supporting the Authority's proposal to increase liquidity and our suggestions on potential modifications to ensure these changes will have the desired impact.</td></tr>
<tr><td>Q2:</td><td>(a) Are bid-ask spreads an issue during non-stressed periods?</td><td>(a) Spreads, traded volume and depth are all issues currently. As shown below, at the close of trading on 21-Nov-19, (a non-stressed period), the spreads are wide, the volume traded is low and yet the price movements significant. There is clearly a lack of depth in the market which makes it difficult to manage reasonably sized positions.

Closing prices on 21-Nov-19 @ OTA
<table><tr><th>Product</th><th>Closing Bid</th><th>Closing Offer</th><th>Settlement</th><th>Change</th><th>Volume</th></tr><tr><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>2019-M11</td><td>$111.00</td><td>$115.50</td><td>$112.85</td><td>$0.85</td><td>0</td></tr><tr><td>2019-M12</td><td>$91.00</td><td>$96.00</td><td>$93.30</td><td>$0.80</td><td>3</td></tr><tr><td>2020-M01</td><td>$126.05</td><td>$135.00</td><td>$133.35</td><td>$7.50</td><td>2</td></tr><tr><td>2020-M02</td><td>$135.25</td><td>$145.00</td><td>$143.20</td><td>$6.70</td><td>3</td></tr><tr><td>2020-M03</td><td>$165.90</td><td>$183.20</td><td>$175.95</td><td>$5.80</td><td>2</td></tr></table>
A narrower spread in the back end of the curve (as proposed in the 29-Nov-19 letter will help address the issue of very limited trading down the curve and should lead to more extensive price discovery and a more robust forward curve. See our comments in the cover letter regarding the proposed change put forward by the Authority.</td></tr>
</table>

	(b) How could the Authority robustly measure the influence of factors unrelated to uncertainty on the bid-ask spread? Expressed differently, how could the Authority determine the influence of uncertainty on the bid-ask spread compared to the influence of other factors on the bid-ask spread? (c) What interventions should the Authority consider to address this issue?	(b) We do not understand this question but would be happy to discuss with the Authority. (c) The interim proposed voluntary solution (as per 29-Nov-19 letter) is a good interim step but will not address the fragility issues (and may in fact exacerbate them because parties are facing more onerous obligations). Only a well-designed rules-based incentivised market making scheme with appropriate spreads, volumes, and incentives will attract the right participants and give the market confidence that liquidity will be available to manage risk at all times (stressed or not). (Refer to covering letter for further comments). The Authority should also work with the ASX to reduce margins to encourage the use of futures. Currently a three-year 10MW strip from Q1-20 requires $4.2m in initial margin and if the position moves unfavourably a variation margin is payable on top of this. Contracts for difference therefore have clear cost advantages.
Q3:	(a) Is there other data or evidence available that suggests there is not sufficient volume of futures available to trade?	(a) Market making volumes in the front two quarters are 54% of what they were in the previous market making contract. The market often trades small volume at a level and gaps away. Mercury struggles to trade the volumes it would like to and is scaling back its exposure across the curve in response. For example, as displayed below, despite the Kupe outage and a significant change in hydrology, the Nov-19 OTA contract traded from $93 to $156 and back to $115 on an average of 1MW per day.  This is typical of what Mercury has recently observed in the front end. (i.e. the market moves away significantly on just one or two MW's of traded volume). There is immaterial liquidity to manage risk exposure. Measuring the occurrences of an absence of bids or offers at the close of trading is misleading. A $100-$200 market has a bid and offer but is of little use. A better measure would be calculating how

	(b) When the Authority begins analysing the new ASX dataset, what particular measures should it prioritise?	much volume trades in a $5 or 2.5% move. Often in the front end this is insignificant. The statement futures are available to trade in stressed events is true as futures do trade but not many. The Authority should consider what it expects to achieve? Is 2MW or 3MW trading on a ten dollar move sufficient to give participants confidence to take on futures positions? (b) Suggested KPIs are: volume traded in a $5 move or 2.5% move, the depth in the market, how much volume is available each side during the session and for how long. For example, measure the volume available within $5 or 2.5% from last trade/settlement price at 3:35PM, 3:45PM at 4:00PM. Focus on the front contracts as liquidity here is the key measure of market depth. Ensure that any measurement of trading activity takes into account the significant Exchange For Physical (EFP) and basis trade volume as this can be material.
Q4:	Would it be useful to seek consensus on a measure of liquidity, and how could this be linked to consumer benefit?	Yes, suggest this is volume traded and market depth based.
Q5:	(a) Do future prices (taking into account the bid-ask spread) reflect the market's collective view of future spot prices? What evidence supports your answer? (b) To what extent does pricing behaviour in the OTC market reflect on market making arrangements in the future market? What evidence supports your answer? (c) If there are systematic differences between the OTC market and the futures market, why are these differences not arbitraged?	(a) Futures prices are primarily driven by collective views of future spot prices but also represent the expected spot price plus a risk premium, where the risk premium includes factors such as hydrology risk, plant risk, gas risk and liquidity risk. (b) When pricing OTC deals, Mercury uses the forward price curve as a guide of future prices. (c) Mercury does not offer OTC prices below the futures curve. Arbitrage is difficult/not possible as it is hard to find an opportunity to arbitrage CFDs and futures. Also, the impact of margin requirements could be prohibitive to any arbitrage opportunities.
Q6:	What impartial evidence might exist regarding the likelihood that market making services will stop or materially decrease in the short to medium term?	Mercury is less likely to participate in market making when other parties withdraw. Evidence in the discussion paper provided by some market makers indicates significant losses particularly during periods of high market stress (see our cover letter). Mercury has little confidence other parties will continue market making in a stressed scenario as was seen in Spring 2018. This demonstrates the need for an incentivised arrangement and more explicit measure of portfolio stress (see our cover letter for further comments).

Q7:	(a) Do non-market making participants make active offers and bids in the futures market? (b) What is the significance of non-market maker behaviour in the market, and how does it impact consumer outcomes? (c) What changes could the Authority make to incentivise more activity by non-market makers?	(a) Yes, but they could do more if liquidity was improved and margins were lower. Anecdotally, we believe there is less speculative activity in the market at present which is leading to poorer price discovery. Refer comments in our covering letter). (b) Financial entities can act to take price anomalies out of the market by trading. They act to ensure futures prices are not mispriced. Unfortunately, their presence seems to be declining due to market conditions. (c) The best solution would be to establish rules that provide confidence to non market makers (particularly financial participants) to reassure them that they can hedge exposures. We think an incentivised scheme is most likely to achieve this and provide further comments in our cover letter.
Q8:	(a) Will the changes described above increase the private benefit to market makers? (b) What value do you place on accessing the forward price curve? What value do you place on the tightness of the bid-ask spread? For example, what is the difference in value between a 5% bid-ask spread obligation and a 3% bid-ask spread obligation? (c) How should the costs of a commercial arrangement be allocated? If on a 'risk exacerbators' basis, what evidence do you have that some parties exacerbate risk? (d) Are there any other changes that increase the private benefits of market making that are within the Authority's powers and the scope of this project? (e) Will the changes affect the usefulness of the forward price curve or have other unintended consequences? (f) How could the changes described above be implemented? (g) Do you have experience of these potential interventions from other jurisdictions that you can share?	(a) Mercury supports the introduction of incentivised market making. Whether this provides an increased private benefit will depend on their approach, risk appetite and capability. Refer to our detailed comments in our cover letter. (b) Refer to our comments regarding the Authority's proposed amendments to current market making arrangements on 29 November in our cover letter. (c) Mercury supports the principles of beneficiary-pays as outlined in the discussion document. Refer to our cover letter. (d) No comment. (e) Mercury considers moving toward an incentivised scheme will deliver the most sustainable outcomes at least cost for consumers in the long-term and will remove the risks associated with regulatory intervention which has a far greater probability of resulting in unintended consequences. (f) Refer to our comments on implementing an incentivised scheme in our cover letter. Work has already been undertaken which could be built upon. (g) Outside of the experience of Singapore which the Authority is already aware of we do not have further examples.

Q9:	(a) Will the changes described above ensure that market making services are provided? (b) What are the key parameters that should be included in a mandatory market making scheme, and why? (c) Are there any other ways the Authority can regulate to provide market making services that are within its powers and the scope of this project? (d) Will the changes affect the usefulness of the forward price curve or have other unintended consequences? (e) How could the changes described above be implemented? (f) Do you have experience of these potential interventions from other jurisdictions that you can share?	Please refer to our comments in the cover letter which also cover off on the positions put forward by the Authority to existing market makers post the release of the discussion paper.
Q10:	(a) Will the changes described above reduce the private costs to market makers? (b) Are there any other changes that reduce the private costs or risk of market making that are within the Authority's powers and the scope of this project? (c) Will the changes affect the usefulness of the forward price curve or have other unintended consequences? (d) How could the changes described above be implemented? (e) Do you have experience of these potential interventions from other jurisdictions that you can share?	Mercury supports the move toward an incentivised scheme as the most sustainable long term option for market making which will reduce the private costs for market makers. Refer to our cover letter for our more detailed views on elements that could be included if further complimentary regulatory options are considered. In particular Mercury would support expanding the current market makers and introducing a clear measure of portfolio stress.

Q11:	What is the best way for the Authority to procure data from participants?	Mercury notes the Authority's 29th Nov 19 letter to market makers it has requested permission be given for the ASX to provide deanonymized bidding, offering and trading data. Mercury supports this outcome as long as it used for the Authority's purposes and is not shared publicly.