02 December 2019

Electricity Authority
Level 7, ASB Bank Tower
2 Hunter Street
Wellington

To whom it may concern

Re: Hedge Market Enhancements (Market Making) Discussion Paper

Thank you for the opportunity to provide feedback on your discussion paper. Please find Contact Energy's responses attached.

Please do not hesitate to contact me if you have any questions or require any further information.

Yours sincerely,

Nigel East
Forward Markets Manager

1. Introduction

The Electricity Authority (Authority) has sought feedback on the main challenges and opportunities within the current market, which will provide the most benefit to customers.

The Electricity Pricing Review cited market fragility as a key risk of the current market making arrangements and recommended that market makers either provide mandatory market making or develop an incentivised scheme.

Contact remains supportive of an incentivised market making scheme and encourages the Authority to engage directly with the current market makers, and those who may be interested in becoming a market maker, to see how this outcome could be achieved.

2. Discussion

2.1 Futures market fragility

Some market participants have expressed concern that, in periods of stress, hedging products become unavailable, and that this indicates persistent market fragility.

Bid-ask spreads do tend to widen in periods of stress. We believe this is a function of the market adjusting to volatility and uncertainty, and is not necessarily an example of fragility. The widening of bid-ask spreads is a feature of many market making agreements across a range of different financial products. This dynamic allows market makers to adjust to volatile market conditions.

Increasing prices reflect the state of supply and demand conditions during periods of market stress, however, historically these periods have generally been short-lived.

Participants hedging in the New Zealand electricity market have choices between:

- hedging with futures and options;
- hedging with over the counter (OTC) transactions; and,
- hedging with financial transmission rights (FTRs).

Due to the nature of market dynamics (i.e. demand variations from weather events), participants may not find it easy to accurately hedge their full exposure. However, we believe a large portion of spot market exposures can be covered by hedging well in advance with the products listed above. We believe short periods of market stress should only affect a small portion of a prudent participant's exposure.

We encourage the Authority to continue with efforts to educate participants around portfolio hedging strategies, and better understanding the risks of operating in the New Zealand electricity market.

2.2 Improving the existing hedge market

As discussed in previous consultations, Contact's view is that to create a more robust and enduring hedge market:

(a) Liquidity could be improved by financially rewarding market makers for the level of service they provide; and

(b) Market makers could be encouraged to market make during periods of market stress, through a well-designed incentive scheme which rewards them for taking on the increased risk during times of high market volatility.

Under the existing market making arrangements, significant costs are borne by the market makers, and these costs increase rapidly when wholesale market conditions are volatile and/or fewer market makers are present. Financially rewarding market makers can help offset these costs, and may have the further benefit of attracting an increased pool of market makers.

Contact supports an incentivised market making scheme that is funded by all participants who benefit from the existence of the futures market, including non-physical participants such as financial institutions and hedge funds.

3. Discussion paper questions

We respond to the relevant questions raised in the consultation paper.

Q1	Is market making fragility a distinct problem from consideration of bid-ask spread and volume?	During periods of stress, bid-ask spreads tend to widen to allow for the additional volatility and uncertainty experienced in the market. Consistent with previous submissions from Contact and other participants, we do not see this as a sign of fragility, but rather a sign the market is reacting to uncertainty. Widening spreads can act as a pressure gauge on the market to allow prices to be shown in periods of volatility. The return to agreed bid-ask spreads following a period of widened spreads could be managed via an incentivised market making scheme. Market makers could be financially rewarded for meeting the terms of the market making agreement, and those market makers who do not meet the terms could be penalised. The volume available to trade could also be a measure of fragility. However, it is important that is measured correctly. It is Contact's understanding that current assessments are made on the end of day trading snapshot. It would be more useful to measure and analyse the performance of a contract over the whole market making session, and in the period prior to market making. During recent market stress events, the futures market experienced a large increase in brokered transactions, suggesting there was still volume to trade, but that knowing the intention of a buyer or seller before showing a price became an important part of the transaction. We also note that, in brokered futures transactions, the parties on each side of transaction are not aware of who the other party is.
Q2(a)	Are bid-ask spreads an issue during non-stressed periods?	To determine whether bid-spreads are appropriate, we believe spreads should be viewed in light of the underlying volatility of the spot market. To compare the New Zealand electricity market with other markets, we've looked at quarterly wholesale spot prices in Australia, and the United Kingdom between 2010 and 2019. As a marker of price volatility, we've used the standard deviation of quarterly prices, which are shown in table 1. The table shows that, over time, the New Zealand and Australian markets have shown similar levels of volatility. However, looking at New Zealand, it is clear that the period of July 2012 to June 2018 was substantially lower in volatility than that of the period July 2018 to September 2019.

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Table 1. Standard deviation of quarterly wholesale spot prices[1]
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<tr><th></th><th>QLD</th><th>NSW</th><th>VIC</th><th>SA</th><th>TAS</th><th>Benmore</th><th>Otahuhu</th><th>UK</th></tr>
<tr><td>Jul-10 - Sep-19</td><td>$31.98</td><td>$26.83</td><td>$38.03</td><td>$41.71</td><td>$34.92</td><td>$33.45</td><td>$31.59</td><td>£10.18</td></tr>
<tr><td>Jul-12- Jun-15</td><td>$23.25</td><td>$9.42</td><td>$14.15</td><td>$19.65</td><td>$5.55</td><td>$21.47</td><td>$16.16</td><td>£4.92</td></tr>
<tr><td>Jul-15- Jun-18</td><td>$39.06</td><td>$26.32</td><td>$28.99</td><td>$34.00</td><td>$37.22</td><td>$17.83</td><td>$14.77</td><td>£7.58</td></tr>
<tr><td>Jul-18 - Sep-19</td><td>$8.73</td><td>$8.00</td><td>$52.43</td><td>$57.19</td><td>$34.54</td><td>$39.37</td><td>$45.73</td><td>£26.20</td></tr>
</table>

We believe the 5% bid-ask spread is appropriate given the volatility and of the underlying market. The bid-ask spread aligns with the Australian market making spreads of 5-7%, which have similar underlying spot market volatility. We also note that Singapore spreads are set at 10%[2], however, in the short time frame available to respond to this consultation, we were unable to source data on the state of the underlying spot market in Singapore[3].

We note that Wholesale Advisory Group (WAG) recommended a 3% bid-ask spread in 2015. However, this recommendation was made during a time of significantly lower volatility.

Evidence from the discussion paper suggests that market makers have met the 5% bid-ask spread during non-stressed periods. The new market making agreements have been in force for more than six months, and it appears that market makers are generally meeting the terms of the new agreement.
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<td>Q2(c)</td>
<td>What interventions should the Authority consider to address this issue?</td>
<td>A suitably designed incentive-based market making agreement is the best option to improve the performance of market making and reduce the likelihood of market making issues during market stress events.

An incentive-based scheme that redistributes the fee of a non-compliant market maker would help to encourage participants to remain in the market if another market maker is unable to participate.

A competitive tender should be run with the aim to increase the number of market makers. An increase in the number of market makers would increase liquidity, reduce bid-ask spreads, and reduce the effect of the temporary loss of one market maker.</td>
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<td>Q3(a)</td>
<td>Is there other data or evidence</td>
<td>Contact does not have evidence to suggest there are insufficient volumes of futures to trade. The vast majority of contracts have bid and ask quantities within the 5% bid-ask</td>
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</table>

[1] The Australian data used was a demand weighted average of spot price.
[2] Subject to tightening if liquidity requirements were not met.
[3] Some overseas markets are closely linked to prices of other traded commodities such as gas or oil, which would allow market makers to hedge risk in products other than electricity. Also, overseas markets such as the UK are linked to other electricity markets (i.e. the UK electricity market is connected to France).

	available that suggests there is not sufficient volume of futures available to trade?	spread at the close of each day, which suggests that there is sufficient volume available to trade. An incentive scheme which increases the number of market makers will improve liquidity, and payments to market makers will help to offset costs associated with providing futures market liquidity when the underlying spot market liquidity is challenging (i.e. low hydro, gas shortages). There is no publicly available evidence that Contact is aware of, which outlines the extent to which retailers or commercial and industrial participants are active in the futures market. It is unclear whether these parties are active in the futures market, or relying on the futures curve as a basis of valuing OTC products. Information as to how many parties are participating in the market would help the Authority with any assessment as to whether there was sufficient volume available to trade.
Q3(b)	When the Authority begins analysing the new ASX dataset, what particular measures should it prioritise?	The Authority should focus on spreads and volumes available during the market making session and not just rely on a closing snapshot to determine market liquidity. It should also consider trades that are done outside of the market making window.
Q5(a)	Do futures prices (taking into account the bid-ask spread) reflect the market's collective view of future spot prices? What evidence supports your answer?	Yes. Contact believes the futures market reflects the market view of future spot prices. If participants do not believe the prices reflect the view accurately, the futures market gives those who want to trade in it the opportunity to profit from buying or selling contracts. The market reacts appropriately to changes in supply and demand conditions. Changes in hydro conditions flow through to the front of the curve. Both new plant build and plant closure announcements have flowed through to longer dated parts of the curve. Contact has confidence in the accuracy of the futures market, and actively uses the futures market to price OTC contracts and determine internal transfer prices.
Q5(b)	To what extent does pricing behaviour in	Contact's experience is that pricing of OTC products closely reflects the ASX market when the term, shape and location of the request matches those of futures products.

	the OTC market reflect on market making arrangements in the futures market? What evidence supports your answer?	
Q5 (c)	If there are systematic differences between the OTC market and the futures market, why are these differences not arbitraged?	There are many reasons why prices between the two markets might diverge, such as differing deal terms, shape, location risk, fuel costs of participants, credit risk and transaction costs. However, once these factors are allowed for, these two markets tend to align and if there is still a substantial difference in prices, we believe this should be arbitraged.
Q6	What impartial evidence might exist regarding the likelihood that market making services will stop or materially decrease in the short- to medium-term?	The existing market makers have recently committed to a new market making agreement. There is no evidence to suggest market making services will stop or decrease in the short to medium term. Recent market volatility has significantly increased the risk and costs of participating as a market maker. These costs are borne heavily by the market makers, whereas all electricity participants benefit from access to the futures liquidity and price curve. A suitably designed incentive-based scheme could reduce the costs to market makers and improve the usefulness of the futures curve.
Q8 (a)	Will the changes described above increase the private benefit to market makers?	Introducing an incentive-based market making scheme should aim to benefit the market maker, such that they are willing to provide a high level of service. Penalties for non-performance should be considered carefully.

Q8(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?	Contact supports an incentivised market making scheme that is funded by all participants who benefit from the existence of the futures market, including non-physical participants such as financial institutions and hedge funds. Contact does not agree that the funding cost should only be borne by the large generation retailers, as all parties benefit from the existence of a robust futures curve. If an incentivised market making scheme was operating with the current mix of market makers, it would seem odd that they are effectively self-funding the vast majority of the revenue they receive for market making.
Q8 (e)	Will the changes affect the usefulness of the future price curve or have other unintended consequences?	Contact believes an incentivised scheme would improve the performance of market making in the New Zealand electricity futures market, which would lead to more confidence in the futures market price. The changes will enhance transparency, and ultimately improve confidence in the futures market.
Q8(f)	How could the changes described above be implemented?	Contact supports an incentivised market making scheme that is funded by all participants who benefit from the existence of the futures market, including non-physical participants such as financial institutions and hedge funds. Market makers for the incentivised scheme should be procured via tender. In previous submissions, Contact has provided details on how this tender could operate [4,5]. A suitably designed incentive-based scheme would also provide non-physical participants with the opportunity to become market makers.
Q8(g)	Do you have experience of these potential interventions from other jurisdictions	We note that Singaporean market makers obtained payment by a competitive tender process, and after recent adjustments to the scheme, the market appears to be functioning well.

[4] Contact Energy Submission, 21 July 2015,
Hedge market development: enhancing trading of hedge products – consultation paper;
https://ea.govt.nz/dmsdocument/19663-contact

[5] Contact Energy Submission, 19 December 2014,
Wholesale Advisory Group discussion paper on Hedge Market Development;
https://www.ea.govt.nz/dmsdocument/18965-contact-energy

	that you can share?	
Q9(a)	Will the changes described above ensure that market making services are provided?	Incentivised market making is the most effective way of ensuring consistent stable market making environment.
Q9 (b)	What are the key parameters that should be included in a mandatory market making scheme, and why?	We do not support a mandatory market making scheme. Regulation could impose unnecessary risks on market making participants when market volatility increases. Our experience suggests that the root of futures market issues are more likely to be associated with the underlying spot market, than the futures market itself. On face value, a regulated scheme would appear to be less flexible to change than an incentivised scheme. For example the recent adjustment to the Singaporean incentive scheme may have taken longer under a regulated process.
Q10(a)	Will the changes described above reduce the private costs to market makers?	Contact supports attempts to increase the number of market makers, introducing fast market rules and is open to incorporating a soft opening as part of an incentivised scheme. Increasing the number of market makers would allow risk to be spread and reduce the impact of one party being absent from market making. From our experience, a major risk associated with being a market maker is the ability to exit an open position. Increasing the number of participants who market make would increase the ease of which this could be achieved. Fast market rules would allow market makers to adjust to volatile market conditions and provide a transparent mechanism for other parties to see why spreads have widened, or that a market maker has had to suspend trading obligations.
Q10(c)	Will the changes affect the usefulness of the future price curve or have other unintended	The changes will be a positive improvement for the robustness of the future price curve. The design should be considered carefully and consulted on so any unintended consequences can be considered in context.

	consequences?	If there are unintended consequences the Authority should have the ability to act quickly to remedy them.
Q10(d)	How could the changes described above be implemented?	These changes can be implemented as part of the incentivised market making regime.
Q10(e)	Do you have experience of these potential interventions from other jurisdictions that you can share?	We are aware that the UK market making scheme has adopted fast market rules and that the Singaporean incentive based market making scheme has six market makers, some of which are financial participants.