Hedge Market Enhancements

Permanent market making backstop

Consultation paper

Submissions close: 5pm, 18 January 2021

24 November 2020

1 Executive summary

1.1 In August 2020 the Authority decided to pursue an enduring market making approach that enhances the existing market making arrangements while improving efficiency, increasing trust and confidence in the market, and facilitating a service-oriented approach. The enduring approach involves an initial combination of one or more commercial providers of market making services, and a set of existing market makers who face a mandatory backstop obligation.

1.2 Market making is currently provided voluntarily by four integrated generator/retailers. For the period 3 February 2020 to 3 November 2020 there was also a regulatory backstop to the voluntary scheme. This backstop was created by an urgent Code amendment which required the existing voluntary market makers to compulsorily provide market making services if their voluntary performance did not meet standards set by the Authority. Market maker performance during the temporary backstop period was observed to be good. The temporary backstop obligation contributed to positive outcomes in the electricity futures market; however, the temporary obligation has expired.

1.3 The Authority's first step and highest priority in implementing its decision on an enduring approach to market making is to amend the Electricity Industry Participation Code (2010) (the Code) to address the backstop's expiry, by implementing a permanent mandatory market making backstop.

1.4 The Authority considers its enduring approach to market making, and this first step in implementing it, will benefit consumers because the mandatory backstop enhances market maker performance in the electricity futures market, which:

(a) allows New Zealand electricity market participants to benefit from a robust and liquid forward price curve;

(b) allows those that trade in the ASX futures market to benefit from liquidity and price efficiency supported by market making; and

(c) allows for greater competition in the retail and generation markets.

1.5 The Authority has undertaken a cost-benefit analysis of the proposal. The analysis is positive for consumers, both in the initial implementation of the mandatory backstop, as well as enabling the benefits from the long-term decision to introduce commercial market making.

1.6 The Authority is consulting to seek stakeholders' views on the merits of introducing a permanent mandatory market making backstop into the Code. Any feedback received will be considered by the Authority's Board when it decides whether to proceed with the proposal.

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2 What you need to know to make a submission

Purpose of this document

2.1 This paper seeks feedback on the Authority's proposal to amend the Code to implement a permanent mandatory backstop for market making services. When making a submission, please consider the specific questions included in this document.

2.2 Industry feedback will inform the Authority's decision on whether to amend and/or proceed with its proposal.

How to make a submission

2.3 The Authority's preference is to receive submissions in electronic format (Microsoft Word). Submissions in electronic form should be emailed to HME.feedback@ea.govt.nz with '*Consultation paper –Permanent market making backstop*' in the subject line. Please contact the Authority if you wish to provide your submission in hard copy instead.

2.4 Please note the Authority wants to publish all submissions it receives. If you consider that we should not publish any part of your submission, please:

(a) indicate in a cover note which part/s should not be published;

(b) explain why you consider we should not publish that part; and

(c) provide a version of your submission that we can publish (if we agree not to publish your full submission).

2.5 If you indicate there is part of your submission that should not be published, we will discuss with you before deciding whether to not publish that part of your submission.

2.6 However, please note that all submissions we receive, including any parts that we do not publish, can be requested under the Official Information Act 1982. This means we would be required to release material that we did not publish unless good reason existed under the Official Information Act to withhold it. We would normally consult with you before releasing any material that you said should not be published.

When to make a submission

2.7 Please deliver your submissions by **5pm** on **Monday, 18 January 2021**.

2.8 This deadline allows eight weeks for submissions (including the Christmas/New Year's break). The Authority will acknowledge receipt of all submissions electronically. Please contact HME.feedback@ea.govt.nz if you do not receive electronic acknowledgement of your submission within two business days.

Further information

2.9 The Authority's website contains useful background material about the Authority's previous work, the work of its advisory groups, and the work of its predecessor (the Electricity Commission) relating to hedge markets.[1]

2.10 Please direct any specific questions or queries to: HME.feedback@ea.govt.nz.

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[1] Available at: https://www.ea.govt.nz/development/work-programme/risk-management/hedge-market-development.

3 The Authority has made a high-level decision on enduring arrangements for market making

3.1 The Authority's *Hedge Market Enhancements: Market Making* project[2] (HME) has the purpose of ensuring consumers benefit from the forward price curve and the continued availability of risk management contracts to market participants. The project has a goal of ensuring market making services are sustainable and fit-for-purpose.

3.2 In 2019 the Authority prioritised the HME project in response to reduced market making performance on the ASX during (and after) gas outages in 2018 and 2019, which saw wide bid-ask spreads for ASX contracts, and complaints about a lack of contracts available to trade. There was significant stakeholder interest in reforming market making arrangements.

3.3 The HME project has undertaken a range of formal engagements with stakeholders, including two formal consultation processes, as well as engagement with stakeholders, both bi-laterally and through stakeholder meetings.

The enduring market making arrangements

3.4 Over the course of the project, and particularly during 2020, the futures market responded favourable to challenges, including the forecast risk of disruptions during concurrent maintenance of the inter-island High Voltage Direct Current (HVDC) transmission line and gas supply outages, as well as disruptions caused by the COVID-19 pandemic and various announcements about the future of New Zealand Aluminium Smelters.

3.5 At the conclusion of the consultation on the options for market making,[3] the Electricity Authority Board decided on an enduring approach to market making. The outcome of the Authority's decision-making process was a high-level decision on the enduring market making arrangements that will be in place for the New Zealand electricity market.[4] The enduring market making arrangements will involve:

(a) continued service provision by the four largest generator retailers, underpinned by a mandatory backstop in the Code; and

(b) procurement of additional market making providers on a commercial basis.

3.6 The Authority intends to continue mandated support for the current voluntary market making provisions as the existing support has proven successful in providing stable market making services, has been flexible to the changing needs of the market, and is known and understood by the market. The temporary Code amendment came into force in February 2020 and expired in early November 2020. The expiration of the temporary Code requires the Authority to decide how best to continue the support arrangements.

3.7 The enduring market making approach transitions, over a period of years, to an incentivised market making arrangement where market making services are performed

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2 Information on this project is available at: https://www.ea.govt.nz/development/work-programme/risk-management/hedge-market-development.

3 Available at: https://www.ea.govt.nz/development/work-programme/risk-management/hedge-market-development/consultations/#c18424.

4 Available at: https://www.ea.govt.nz/development/work-programme/risk-management/hedge-market-development/development/decision-paper-on-enduring-market-making-approach/.

by commercial providers. In the interim period, market making services will be provided through a combination of mandated market makers and commercial providers.

3.8 The first step in the transition to the enduring arrangements will involve concurrent mandated and commercial providers of market making services. The mandated parties will be the existing market makers: Contact, Genesis, Mercury, and Meridian. The Code amendment that is proposed here will formalise the mandated requirements in the Code. It is likely that, as the Authority takes further steps to implement its decision that the Code provisions underpinning the mandated providers will need to be updated. The Authority is considering the most efficient way to do this.

3.9 In conjunction with the mandated scheme will be the introduction of commercial providers. The Authority will seek to procure one or more commercial market makers who will provide services for payment. The Authority intends to transition away from mandated providers of market making services and towards commercial providers of market making services. This could involve increasing the number of commercial providers and decreasing the number of mandated providers over several years. The transition period will likely take several years, and it is also possible that the Authority decides it is appropriate that physical participants provide market making services indefinitely.

3.10 The final state of the enduring scheme will be a standalone incentivised market making scheme under which the Authority will procure market making services from the lowest cost commercial providers, and the cost of the scheme is recovered from the beneficiaries.

The Authority will seek continued engagement with its stakeholders as it implements its high-level decision

3.11 The transition to the final state of the enduring scheme will require regular feedback and consultation with stakeholders. For example, amendments to the Code will require formal consultation (as is being undertaken here). In addition to Code amendments, the Authority will take into account stakeholder feedback when it considers other stages in the transition pathway, such as detailed design considerations in areas such as service level or the speed of transition between mandated and commercial providers.

3.12 The Authority notes that each stage in the transition pathway is an opportunity to assess whether each stage contributes to the long-term benefit of consumers. At any stage of the transition, the Authority is able to pause or stop if the proposed change does not contribute to the long-term benefit of consumers.

4 The Authority identified problems and options to address them after engaging with stakeholders

4.1 The Authority identified the issues and opportunities with market making and sought stakeholder feedback and input in November and December 2019.[5] Engagement with stakeholders and stakeholder written submissions resulted in the Authority concluding there were a set of broad categories of issues and opportunities:

[5] Discussion paper and submissions available at: https://www.ea.govt.nz/assets/dms-assets/26/26019Hedge-Market-Enhancements-discussion-paper.pdf.

(a) stakeholders raised issues that suggested there was scope to improve confidence in the market for exchange-traded futures in general, and in market making services in particular;

(b) almost all stakeholders indicated a clear desire to increase the reliability of market making services; and

(c) the Authority also considered there was an opportunity for the enduring solution to be service-orientated, where the level of service provided is informed by those that use and contribute to the cost of provision.

4.2 Underpinning the issues and opportunities is the desire for any solution developed to deliver efficiency and promote competition for the long-term benefit of consumers. This is enabled by ensuring that market making services support a robust forward price curve and enable efficient risk management.

The Authority considered several options to address the problems

4.3 The Authority considered there were a range of arrangements that could deliver market making services. These arrangements were presented to stakeholders in a consultation paper in April 2020. The Authority considers that its enduring approach best addresses the issues and opportunities with market making, and will provide long-term benefit to consumers. The options consulted on were:

(a) a voluntary approach. Market makers would continue to provide services under an arrangement negotiated between themselves and the ASX on a voluntary basis;

(b) a voluntary approach with a mandatory backstop. Market makers would provide services negotiated between themselves and the ASX on a voluntary basis, with a mandatory backstop in place in the Code that would mandate service provision if set pre-conditions were activated;

(c) a commercial approach. Market makers would be identified using market-based price discovery mechanism (a tender or similar). Payment to market makers would be made by the Authority, with funding raised by New Zealand electricity market participants;

(d) a mandatory approach. Market makers would face a mandatory obligation to provide services. The set of potential market makers would be limited to electricity market participants;

(e) a mandatory-commercial approach. A combination of mandatory market makers and a small number of commercial market makers would provide services; and

(f) a mandatory approach with transferrable providers. Market makers would face a mandatory obligation to provide market making services. Accompanying the obligation would be the right to transfer delivery of the obligation to a third party, with the ultimate responsibility to provide services remaining with the mandated party.

5 The Authority has deliberately structured the obligations

5.1 The parties that face the obligations under the mandatory backstop have been deliberately chosen by the Authority as those that comprise the largest proportion of generation and the largest proportion of electricity purchases in the New Zealand electricity market. These parties are the current market makers and have contributed to the success of the market making arrangements in 2020. In addition, these parties, by their physical position in the market, hold the most relevant information about future prices, and therefore have significant value to impart in informing the future price curve.

5.2 Currently, the Authority has chosen to specify the parties that face the permanent mandatory backstop. The Authority will consider if continued specification of the exact market makers is appropriate, or if another method may be required to ensure the obligation matches future states of the industry. For example, obligations that are matched to size of purchases/generation could be appropriate as market structure evolves, to ensure that the arrangements are future-proof. However, it is likely that an obligation to provide market making services in some form, whether directly or financially, will remain for the largest generation and purchasing participants in the New Zealand wholesale market.

5.3 A number of stakeholders observed that allowing mandated market makers the opportunity to transfer their obligations to a third party could be of benefit. The Authority considers a transferable obligation may enhance the efficiency of the provision of market making services. However, the Authority is focussed on maintaining the success of the current arrangements (which do not include a transferable obligation). At a future stage, the Authority will consider if a transferable obligation is beneficial and can be included in the transition stages to a fully commercial scheme. As noted above, it is likely that the Code provisions that underpin service performance by the existing market makers will need to be updated regularly. This will provide an opportunity for continuous improvement of the Code provisions.

5.4 The Authority observes that the permanent mandatory backstop does not provide a route out for parties that become subject to the mandatory backstop. This contrasts with the temporary backstop which had a defined period for which it applied, beyond which any mandated obligation would cease. However, the Authority intends to review the permanent mandatory backstop when it introduces commercial providers into the market making scheme. Given this intended review, the Authority does not think it is necessary at this stage to introduce a mechanism for parties' subject to the mandatory backstop to cease being subject to it (and to return to voluntary market making arrangements subject to a mandatory backstop if performance targets are not met). The Authority welcomes your feedback on this matter. The Authority also welcomes feedback on an appropriate mechanism to implement such a feature.

6 The Authority's proposal has a positive net benefit for consumers

This first step in the implementation process has net benefits for consumers

6.1 The Authority is required by the Act and the Authority's Consultation Charter[6] to undertake a cost-benefit analysis of Code change proposals. The Authority engaged Sapere to undertake an analysis of the costs and benefits of this step of the implementation process. Sapere's full cost-benefit analysis is included in Appendix A.

6.2 The Consultation Charter notes that quantitative analysis should be used to assess long-run benefits for consumers but recognises that quantitative analysis is not always possible. The cost-benefit analysis of this proposal acknowledges the inability to quantitatively assess the net benefits of the proposal. However, the analysis makes the qualitative assessment that the mandatory backstop will reinforce the bid-ask spread and reduce the rate at which market making services are removed from the market. The impact on spread and market making service will have a positive impact on retail prices. Retail prices will be improved through independent retailers having greater confidence in the futures market.

6.3 The cost-benefit analysis notes that the imposition of the mandatory backstop, designed to support the voluntary market making scheme, will not diminish the benefit to consumers and is likely to be of net benefit to consumers.

This initial step allows the benefits of the overall decision

6.4 In addition to benefit to consumers of creating a permanent mandatory backstop, the Authority considers this an important and necessary step to implementing the long-term enduring market making arrangements. The arrangements for the introduction of a commercial provider will be sensitive to how the existing market makers are engaged in service provision, with alignment of incentives between existing market makers and the commercial providers being critical. Engagement with stakeholders has also confirmed this, with the suggestion that commercial providers will see the provision of clear incentives on the existing market makers as a favourable development, and that certainty will lead to lower costs of provision by commercial market makers.

6.5 In aggregate, the initial step to create a permanent mandatory backstop and the long run enduring market making arrangements will increase the long-run benefit to consumers.

The Code amendment provides the same backup obligations as the expired temporary code amendment

6.6 The temporary Code amendment that was active from February 2020 to November 2020 contained mandatory obligations for the named market makers[7] to provide market making services if the named market makers did not voluntarily provide market making services to a required standard. The permanent Code amendment replicates these obligations.

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6 Available at: https://www.ea.govt.nz/assets/dms-assets/14/14242consultation-charter.pdf.

7 Contract Energy Limited, Genesis Energy Limited, Mercury NZ Limited and Meridian Energy Limited.

6.7 The temporary Code amendment also included requirements to provide trading data. The Authority has separately consulted and amended the Code to ensure continued provision of trading data.[8]

6.8 The Authority's proposed Code amendment is set out in Appendix C.

QUESTIONS: COST BENEFIT ANALYSIS AND OTHER REGULATORY REQUIREMENTS

1 Do you have any feedback on the Authority's cost-benefit analysis set out in Appendix A?

2 Do you have any feedback on the Regulatory statement in Appendix B?

3 Do you have any feedback on the Code amendment set out in Appendix C?

7 Next steps

7.1 The Authority's Board will consider any feedback received when it decides whether to proceed with the proposal in early 2021. If the Authority decides to proceed with the proposal, the Code amendment will be implemented shortly afterwards.

7.2 The Authority's *Hedge Market Enhancement* project is progressing the procurement of a commercial provider of market making services. More detail on the procurement process and its progress will be available at http://www.ea.govt.nz. The future state of the commercial provision of market making services is currently in development, and consequential changes or additions to the proposed Code amendments may be required to align the requirements of commercial market making with those covered under the Code.

7.3 The commercial provision of market making services will require an increase in the Electricity Authority levy as indicated in the Authority's decision paper.[9] The Authority will consult on the change in appropriation in due course.

[8] Available at https://www.ea.govt.nz/development/work-programme/risk-management/hedge-market-development/development/decision-paper-on-securing-access-to-exchange-data/.

[9] Available at https://www.ea.govt.nz/assets/dms-assets/27/Hedge-Market-Enhancements_-enduring-market-making-approach-Decision-Paper1267526.6.pdf

Glossary of abbreviations and terms

Authority	Electricity Authority
Act	Electricity Industry Act 2010
Code	Electricity Industry Participation Code 2010
Regulations	Electricity Industry (Enforcement) Regulations 2010

Appendix A Cost benefit analysis

The benefits of introducing a backstop market making arrangement into the Code

Prepared for the Electricity Authority

Toby Stevenson, Michael Young and Preston Davies

Date 9 October 2020

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Appendices

Executive summary

Market makers in the ASX electricity futures tightened the bid ask spreads they offer into the futures market from 5 per cent to 3 per cent and increased the volumes on the bid and offer in January 2020, following discussion with the Authority about what a sustainable market making arrangement looks like. At the same time, the Authority introduced Code under urgency that would bind market makers who failed to meet their voluntary undertakings to fewer exemptions and provided for penalties to be imposed. The Authority now wishes to replace the Code introduced under urgency with a permanent Code amendment to the same effect. We refer to this Code as a backstop market making arrangement.

We have been asked to assess the costs and benefits of introducing a backstop market making arrangement into the Code permanently. Our assessment acknowledges the implied preference of the Authority for quantitative cost-benefit analysis and the recognition in the Authority's Consultation Charter that quantitative analysis may not always be possible.

The assessment should only include long term benefits to consumers, as per the statutory objective, that can be clearly identified and evidenced. Given that a futures contract and the voluntary market making scheme is in operation and has been for some time, and given that the Code reinforces the provisions made under the voluntary arrangement the benefits may be imperceptible.

Any impact of the Code change would manifest itself on the energy component of retail electricity prices. We consider that retail prices will either be no worse or, more likely, better than would otherwise be the case but for the January 2020 change to the voluntary arrangements and its reinforcement through the Code.

On the cost side any additional costs to market makers in the futures are wealth transfers between market makers and other participants. That is the nature of futures markets, where one party gains to the extent the other party 'loses.' However, to the extent that the wealth transfers lead to greater retail competition (by virtue of more confident retail pricing by independent retailers) any efficiency benefits to consumers also qualify as consideration in the case to proceed with the Code change.

For any cost-benefit analysis, incremental change to arrangements is challenging to quantify and that has proven to be the case here. While the benefits from introducing futures and market making represent changes that are sufficiently large to quantify, this is not what we are trying to assess. What we are looking to assess in this case is the change in 'control' between a strictly voluntary regime and a mandatory regime that works alongside a voluntary arrangement.

Due to data limitations, we have not been able to identify such effects to the point of quantification. Data series of the energy component of retail electricity prices are limited. We asked independent retailers for a guide on whether consumers would benefit from changes in their pricing following the changes to the Code. No direct link between retail offerings and the proposed Code change were shared with us.

As a result, we have relied on core cost-benefit analysis principles and previous work (in the Singapore market) which included a wider range of data suitable to relevant analysis, to give us the confidence in our conclusion.

Notwithstanding the obvious differences in the situation in Singapore to what we are examining now, we are able to glean insights of use. Our view is that, at worst, there would be no diminishment of long-term benefits to consumers from the permanent code amendment. In our view, it is more likely that consumers will benefit in the long term from the changes to the voluntary arrangements and the reinforcement of those changes through the proposed Code amendment. This finding is observational, rather than empirical. In the absence of data, there is no alternative.

1. Introduction

The Authority has been aware of the importance of a viable futures market since the Authority was formed in 2010. It is acutely aware of the role a liquid futures market plays in underpinning competition in the retail electricity market and the importance of the competitive process to the long-term interests of consumers. It has maintained a keen interest in the market making arrangements that underpin the workings of the futures market.

Volatility in the wholesale market especially in 2018-2019 highlighted how a failure of the market making activity had the potential to undermine retail competition and, as a result, impair the long-term interests of consumer. That volatility and the performance of the market makers at the time prompted the Authority to act.

The Electricity Price Review (EPR) cited fragility in the competitive process as the case to introduce a mandatory market making arrangement unless the industry can develop an incentive-based scheme that is effective and acceptable to the Authority. This reinforced the path the Authority was taking. [2]

> We think it vital to correct this fragility to protect the competitive process (rather than competitors per se). An efficient contract market is particularly important for stand-alone retailers and generators, which are a key source of innovation and competitive pressure. Without an efficient contract market, innovators wanting to generate or retail electricity have to enter both of these markets at once.

The Authority worked with industry to arrive at a voluntary arrangement that would better meet the market's needs in May 2019, when provision for non-performance as a result of portfolio stress was replaced by a limit on the number of sessions market makers could absent themselves. Following face-to-face meetings with each of the market makers in November 2019, the Authority wrote to each of the chief executives, observing: [3]

> The Authority considers that the following changes to market making services will help to provide ongoing confidence to the market:
>
> - reduce the bid-ask spread to no more than 3 per cent
> - increase the volume of all contracts with market making to 3MW.

Market makers tightened the spreads in their voluntary undertakings from 5 per cent to 3 per cent in January 2020. Accompanying those changes to the voluntary arrangements, the Authority also introduced measures that would see the market making provisions mandated including fewer exemption periods and a penalties regime if a market maker failed to meet the new voluntary arrangements under its urgent code amendment provisions in February 2020. Those arrangements expire in November 2020, but the Authority has decided to introduce the same measures permanently as soon as it is able to complete the benefits analysis and consultation required. A decision has also been made to continue to evolve market making arrangements subsequent to the current step.

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[2] The Electricity Price Review Hikohiko Te Uira Final Report 21 May 2019

[3] https://www.ea.govt.nz/development/work-programme/risk-management/hedge-market-development/correspondence/correspondence-with-participants-november-2019/

2. Scope for a cost-benefit analysis

This paper is a post hoc assessment of the benefits and costs that resulted from the tightening of the bid ask spreads in the voluntary market making arrangements and the reinforcement of those provisions with a penalty regime in the form of a mandatory backstop in the Code.

The Authority initiated its review of market making arrangements in June 2019. Phase 1 of the project was concluded in August 2020, when the Authority's Board made a high-level decision on next steps for the project. The decision was to build on the current market making arrangements by transitioning, over a period of years, to an incentivised market making approach with commercial providers. During the transition market making services will be provided by the existing market makers, who will face the same provisions under the temporary provisions in place from February to November 2020 when the Code change is finalised.

The first priority for the Authority in Phase 2 of the project is to add the provision in the Code that imposes a penalty regime on market makers that fail to meet their voluntary obligations and mandates market making arrangements but with a reduced number of trading period exemptions.

The scope for this paper is to establish whether the proposal satisfies the Authority's criteria for decisions that include the requirement for proposed code changes to show a positive net benefit. Principle 3 of the Authority's Consultation Charter outlines that quantitative analysis is to be used to assess long-term net benefits for consumers, but also recognises that quantitative analysis will not always be possible. We have proceeded in our assessment with this principle in mind.

3. Our understanding

We have been asked to prepare a cost-benefit analysis of the proposed Code change relating to market making activity compared to the status quo. The analysis is intended to support the Authority's decision-making processes and to meet the Authority's obligation in section 39(2)(b) of the Electricity Industry Act 2010.

We understand the "status quo" to be voluntary obligations with no backstop arrangement in the Code. Prior to the changes made in the voluntary arrangements in May 2019, market makers were able to cease providing services during periods of market stress (i.e. during periods in which there is heightened uncertainty and volatility of prices) which has happened in the past. Market makers could take several weeks or even months to begin providing full services again. From May 2019 market makers agreed to limit suspending their obligations to 5 sessions per month.

We understand the proposed scheme would be the same as the current temporary arrangements introduced in February 2020. The temporary Code included a restriction of exemptions form trading sessions and a penalty regime applied to market makers who breached the voluntary arrangements introduced a month earlier. The change to the voluntary arrangements saw bid ask spreads tightened and volumes on the bid and offer for monthly and quarterly contracts increased. The temporary Code changes expire in November 2020, and it is expected that the voluntary arrangements remain in force, but without the backstop until it can be introduced into the Code permanently. We assume the proposed (permanent) Code will be the same as the current temporary arrangements.[4] The current arrangements are:

1. Four market makers (Contact, Genesis, Mercury, and Meridian) provide market making services in accordance with the voluntary agreements that each has with ASX. The terms of those agreements require each market maker to provide services as follows:

    a) spreads no more than the greater of 3 per cent or $2;
    b) 30 contracts (3MW baseload equivalent) per side, with no refresh;
    c) covering the front 6 months of monthly contracts, and all available quarterly baseload contracts;
    d) each market maker has five discretionary exemptions from providing services each month.

2. If a market maker does not provide the required services on any given day, and is not excused (for example, if they use a discretionary exemption or are otherwise exempted from providing services on that day) then they 'fail' on that particular day.

3. There is a provision in the Code that imposes a mandatory market making obligation on an existing market maker for all time if certain criteria are met:[5]

    a) if it does not have a compliant market making agreement in place with the ASX. (i.e., they don't have an agreement on the terms as set out above).

[4] As per subpart 5B of Part 13 of the Code: https://www.ea.govt.nz/code-and-compliance/the-code/.
[5] This provision is currently in force on a temporary basis and has been invoked. See https://www.ea.govt.nz/development/work-programme/risk-management/hedge-market-development/correspondence/correspondence-relating-to-mercuryenergy/

b) if it fails to comply with the terms of a compliant market making agreement three or more times in any 90-day period; or
c) if it fails to provide certain information to the Authority.

4. Under the terms of their arrangements with ASX, if a market maker has no fails in a given month it will receive a small payment from the ASX. This payment is essentially a refund of 20 per cent of the trading fees owed by that market maker for that month. The market makers receive no payment from the Authority.

5. The different obligations that would become mandatory on a market maker that was found to have failed to meet its voluntary obligations would be:

   a) The number of discretionary exemptions from providing services each month would fall from five to two.
   b) A penalty of up to $0.2m per event could be imposed on the market maker if it fails to meet its obligations compared to no such penalty under the voluntary arrangement.

We have drawn on well-established cost-benefit analysis (CBA) process in our assessment of the proposed Code change. Such a process can involve the following steps:

- define the problem
- select the proposal or options for assessment
- specify the baseline scenario
- identify the impacts of the proposal or options – negative (costs) and positive (benefits)
- where possible, quantify the impacts
- where possible, value the impacts
- adjust for differences in the timing of the impacts
- calculate decision criteria
- analyse the sensitivity of the results
- document the CBA

We highlight the major analytical components below.

Problem definition

The case for introducing market making arrangements is to provide depth or liquidity to the market. This is especially important for independent retailers who have face the challenge of managing risk on the whole of their commitments. In contrast, while the vertically integrated generator retailers still actively manage their exposure, it is their net exposure after taking into account their generation and retail books.

The underlying problem from an economic or regulatory perspective is that if there is no market making in the ASX hedge market, then the hedge market is illiquid, and this gives rise to market failure in the wholesale or retail electricity market. This includes the situation where there are market making arrangements in place but they are unreliable. This market failure arises because of:

- asymmetric information: absent a liquid hedge market some retail market participants have better information about the forward spot price (due to private information about their

own generation assets). This limits the ability of the less well-informed parties to compete effectively. While the existing hedge disclosure scheme[6] does provide information about the forward price through OTC contracts, these are not fungible adding uncertainty to any forward curve derived from OTC information. There is also a lag of up to 10 business days on disclosures and hence on visibility of the forward curve for OTC contracts which is not the case for ASX contracts.

- high levels of transaction costs in obtaining forward cover: absent a liquid hedge market, the cost of obtaining a contract may limit the ability of independent retailers to operate at a sustainable risk position in the retail market. This might give rise to imperfect competition in the retail market.

This latter expression (or a similar one) of the problem definition as a market failure is consistent with Code Amendment Principle 2, which requires that the Authority only consider regulating market activity when it can be demonstrated that amendments to the Code would give rise to improvements in efficiency for the long-term benefit of consumers, or to address clearly identified market failure, or regulatory failure (a problem with the existing Code).

In this particular case, the proposed Code is intended to reinforce voluntary arrangements introduced following discussion between the Authority and market makers. It imposes a backstop mandated market making arrangement including more restricted exemptions and a penalties regime. The rationale for doing so is to support the mechanism, the voluntary market making arrangements, that addresses the market failures to the long-term benefit of consumers

Costs and benefits to be assessed

The benefit of having exchange traded forwards (futures) is greater competition for retail consumers than would otherwise be the case. This comes as a result of greater transparency in forward prices and a better ability for retailers to manage their risks. That competition drives efficiencies that manifest in the pricing offerings to contestable consumers. Some degree of competition benefits would occur amongst existing retailers following the introduction of a futures contract, but it is the enabling of innovative new entrants that exacerbates competition and the benefits that accrue to consumers. The delivery of benefits to consumers is further advanced with the addition of market makers in the futures. It follows that improvements to the market making scheme – such as occurred with the voluntary scheme in January 2020 and the introduction of the mandatory backstop in February 2020 – bring incremental benefits to consumers, albeit smaller increments than the introduction of market making.

The Authority has expressed the view that functions of a futures market (robust forward price curve and risk management) are essential to efficient operation of and investment in the industry, for the long-term benefit of consumers. They agree that reinforcing market making arrangements adds to the efficient operation of and investment in the industry, for the long-term benefit of consumers.

[6] https://www.electricitycontract.co.nz/

An industry forum of market participants including the market makers is also clear about the benefits of futures contracts and the role market makers have to play: [7]

> The forward curve for electricity prices has the characteristics of a public good:
>
> o the price signals it contains are in the public domain (non-excludable), and
>
> o the use of this information by one party does not impact its use by other parties (non-rivalrous).
>
> The effectiveness with which the forward curve will embody expectations of future electricity prices is typically maximised when:
>
> 1. There is a robust information disclosure regime – i.e. There are requirements on parties with information which has or could have a material impact on future supply and demand conditions (e.g. outage plans) to disclose that information publicly.
>
> 2. Participation is low cost – i.e. Reduced barriers and costs to transacting will reduce transaction costs and crowd-in participation, which again can be expected to improve the information content embodied in the forward curve.
>
> 3. A profit motive is maintained – i.e. Informed participants (including the generator retailers) will have incentives to transact through the market when they observe future prices deviating materially from their expectations.

The Forum Members accept that the proposed mandatory backstop scheme would also serve to ensure that the forward curve reflects generator retailers' views on price.

The Authority's 2011 cost-benefit analysis of introducing market making obligations found:[8]

> The analysis indicates that market-making arrangements with tighter bid-ask spreads of 5 per cent or lower will increase confidence in the forward prices and create more robust hedging arrangements, which in turn will provide a number of benefits to the electricity market.

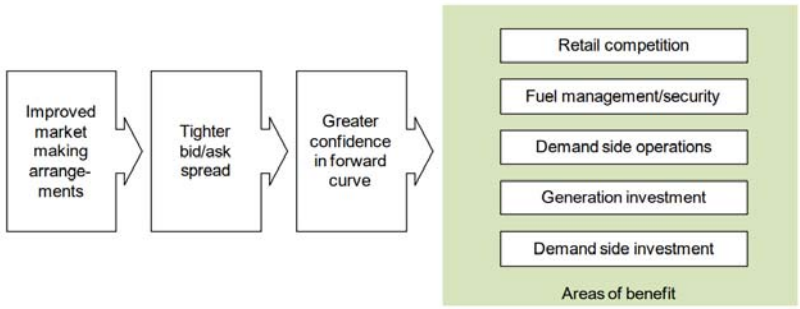
The Authority summarised the link between market making and economic benefits as shown in Figure 1. [9]

[7] Industry Forum to Chief Executive of the Electricity Authority 23 July 2020. Participants include representatives from Contact, Genesis, Mercury, Meridian, Nova Todd, Pioneer and Trustpower. See: https://www.ea.govt.nz/development/work-programme/risk-management/hedge-market-development/correspondence/correspondence-with-participants-november-2019/

[8] Electricity Authority Information Paper Cost-benefit Analysis – Market-Making Obligations 21 November 2011. p2

[9] Ibid p7

Figure 1: Linkage between market-making and economic benefits



The Authority reported the following:[10]

> 3.1.4 Expected benefits have been analysed by considering the 'size of the overall prize' for each of these categories, and then quantifying the effect of a small change in behaviour by participants – typically an efficiency improvement of 0.5 per cent to 1 per cent.
>
> 3.1.5 Efficiency gains of this size appear reasonable based on the expectation that adopting the tighter market maker requirements will reduce average observed spreads from around 6.2 per cent (the longer term historic average) to around 2 per cent-3 per cent
>
> 3.1.6 While there is clearly uncertainty about the precise magnitude of gains from tighter market-making arrangements, it is important to recognise that their size is not the determining factor in deciding whether or not a requirement should be included in the Code. Instead, this turns on how the net gains alter in relative terms between voluntary and Code-based approaches.

We note that the Authority found the benefits would be positive albeit with a great deal of uncertainty. We are not convinced that fuel management, demand side operations, generation investment and demand side investment will be materially changed by the proposed permanent introduction of the backstop Code now. However, we are satisfied that at worst retail competition will not suffer and will more likely benefit consumers in the long term as a result of the introduction of a backstop in the Code now.

We reviewed the Australian Energy Market Commission's recent consideration of additional market making in the Australian National Electricity Market.[11] This work estimated the reduction in market-wide bid-ask spreads arising from the implementation of several each Market Making Obligation (MMO) designs. It did not view the issue through the lens of a tightening of spreads within an otherwise unchanged arrangement. Even then it reported:

[10] Ibid p8

[11] Australian Energy Market Commission Costs and Benefits of Additional Market Making in the NEM 24 May 2019

> In part due to problems with measuring the benefits accurately and the challenge of constructing a robust counterfactual, the benefits of MMOs internationally have been largely elusive.

We have quantified the link between the introduction of liquidity in a futures market with a market making scheme and retail electricity prices for the Energy Market Authority (EMA) in Singapore.[12] However, the incremental change to the voluntary scheme and the accompanying codified backstop here is a much narrower change than the introduction of market making into a nascent futures market, as was the case in Singapore. Further, continuous data of retail offerings is not available in New Zealand but was available in Singapore. However, we learned from that work that:

1. even though the retailers "benefit" from greater transparency and liquidity the market makers provide, the beneficiaries of the introduction of futures and accompanying market making arrangements in an economic sense are the consumers the retailers are competing for
2. the costs of providing market making services are not trivial and, without incentives, fall entirely on the market makers. Costs include resourcing market making activity, prudential requirements for participation, capital allocation required to absorb losses and, of course, the losses themselves. On several occasions market makers in New Zealand have reported significant realised year-on-year losses from market making in their annual reports.

Identifying the impacts of the proposal or options

The questions we would have to be able to satisfy are:

1. will retail price offerings to consumers be lower than they otherwise would have been if the measures had not been introduced?
2. what costs are incurred as a result of the measures being introduced?
3. will the long-term benefits to consumers outweigh the costs of the measures being introduced? If so, will these benefits continue to outweigh the costs in the long-term?

[12] Toby Stevenson, Kieran Murray, Simon Orme. The benefits of an electricity futures market in Singapore. May 2016. See: https://www.ema.gov.sg/cmsmedia/Electricity/Electricity_Futures/Sapere%20Paper%20on%20Benefits%20of%20an%20Electricity%20Futures%20Market%20in%20Singapore.pdf

4. Assessment

Where possible, quantify and value the benefits

In order to quantify and value the gross benefits of the measure, we have to estimate by how much retail price offerings will be lower than they otherwise would have been if the measure had not been introduced. [13]

We do not consider that reducing costs to independent retailers qualifies as a benefit for the long-term interests of consumers. We only see a benefit that qualifies for the CBA where some of the gains to the independent retailer are passed on to consumers. Accordingly, we asked independent retailers a number of questions including:

1. If the Authority proceeds with its proposal to introduce backstop mandatory market making permanently will it give you the confidence to change your behaviour especially regarding your retail pricing?
2. What other measurable benefits can be attributable to a move from the modified voluntary arrangements to mandatory market making?

All of the independent retailers we wrote to declined to provide information along these lines that we could use in a CBA. Some of them clearly tried to be helpful but the suggestions we received went to their commercial benefit from changes in market making (spreads and consistent presence in the market) and not to how that would translate to the long-term benefits of consumer.

As an alternative we followed the logic we followed in the cost-benefit analysis for the EMA even though we didn't have the same level of supporting data here.

The Authority was created by the Electricity industry Act 2010 and sets out its statutory objective being to:

> promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers.

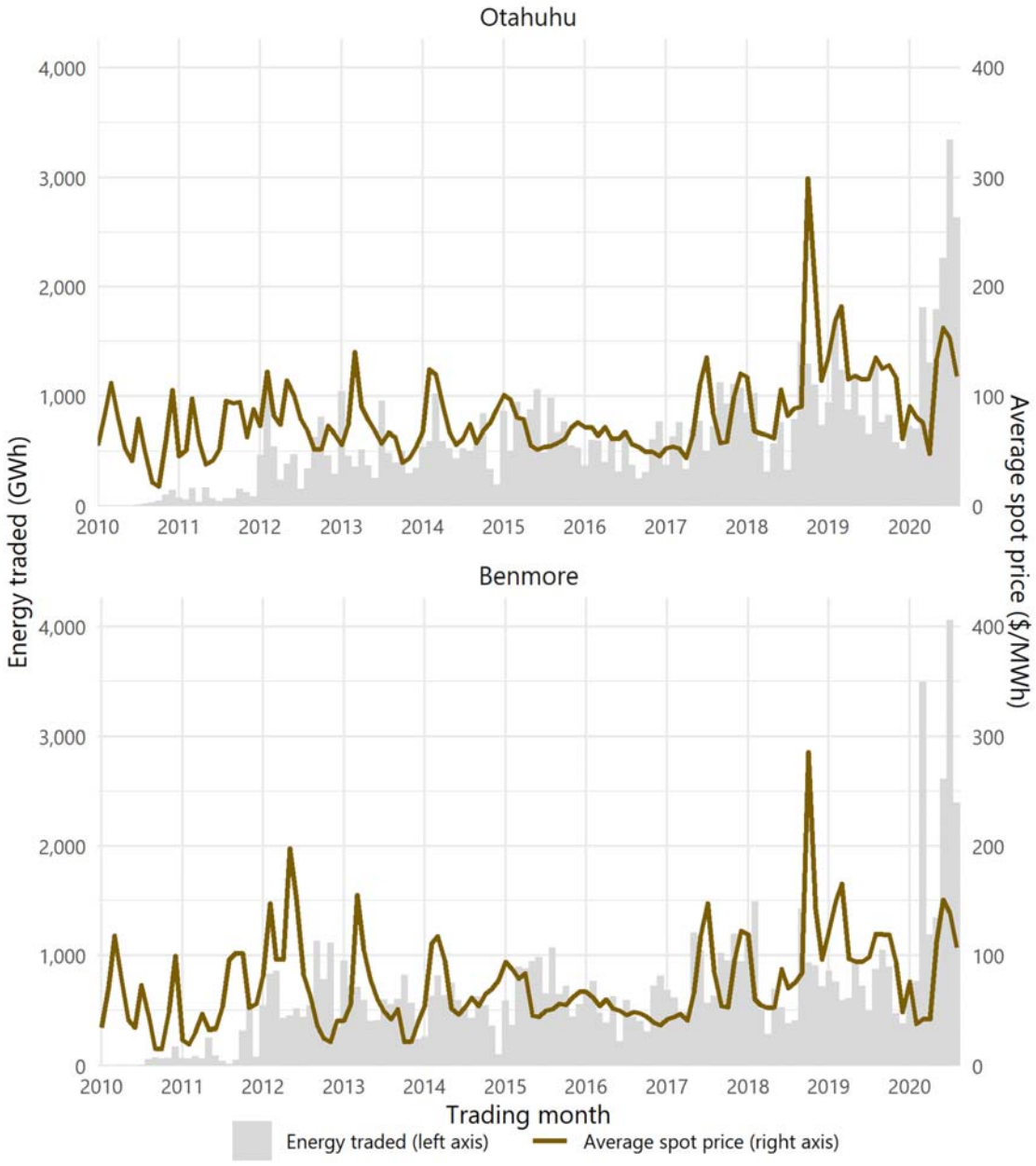
In line with its statutory objective and the role of an electricity futures market, the Authority has put in a great deal of effort to support and encourage liquidity in the futures market so consumers will benefit from more competition, more information about price expectations and lower transaction costs for parties wanting to manage their risk.

Figure 2 is a plot of the volume of futures traded monthly expressed as energy volumes and monthly average wholesale prices for Otahuhu and Benmore. Volumes have grown since the establishment of the Authority with the support participants have given the market and the market making activity. In parallel, over-the-counter trade in hedges has continued, but those contracts tend to be more bespoke and less transparent. This year has seen volumes by month more than double the previous

[13] If the data were available, we could have tested this while the temporary provisions were in place but the data is not available.

records. That all bodes well for establishing that the benefits of a futures market are being felt. From a consumer point of view, the outcome is more competition and the benefit is downward pressure on the retail energy component of retail tariffs.

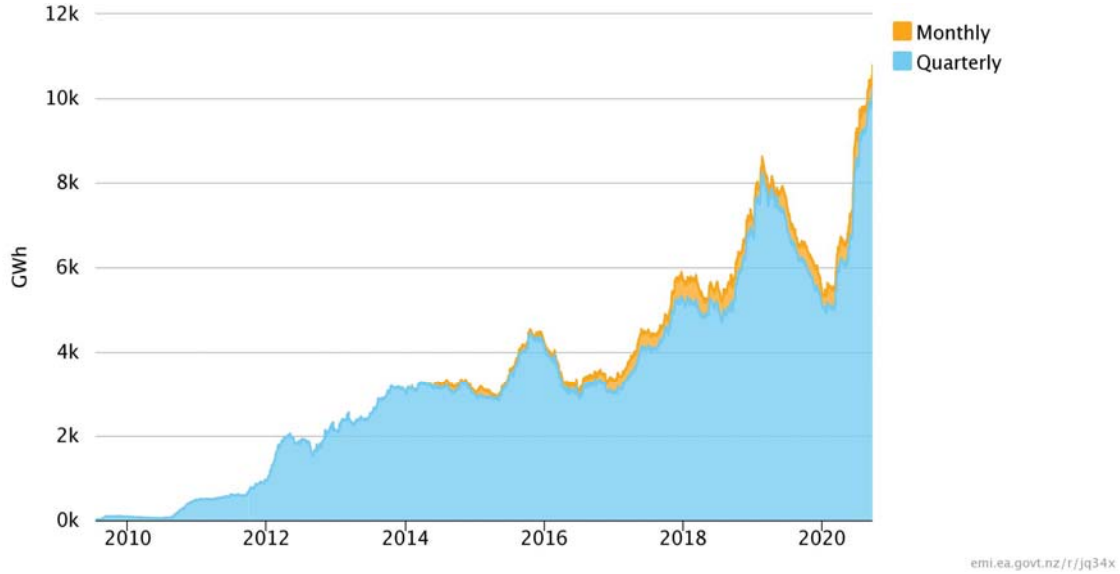
Figure 2: Monthly quarterly futures at Otahuhu and Benmore 2010 – 2020



Source: Sapere, EMI

Figure 3 tracks open interest, i.e. the number of contracts that remain in force following trading. It is an indicator of the health of the market. When the futures market began trading in earnest, the target was for open interest to reach 3000 GWh. The chart shows that open interest has grown to 10,000 GWh.

Figure 3: Open interest in quarterly and monthly futures volumes 2010 - 2020



Source: EMI

There are a number of ways to measure increases in competition. Competition is a means to an end in the sense that consumers benefit from competition because it results in downward pressure on prices to consumers. The greater the number of retailers, the greater competition is likely to be. Figure 4 plots the number of retailers in the New Zealand market since 2003, with pluses indicating retailers entering the market and minuses showing retailers exiting. The net number of retailers has grown in line with the futures volume, although we have not completed a quantitative assessment of how strongly linked the two indicators are.

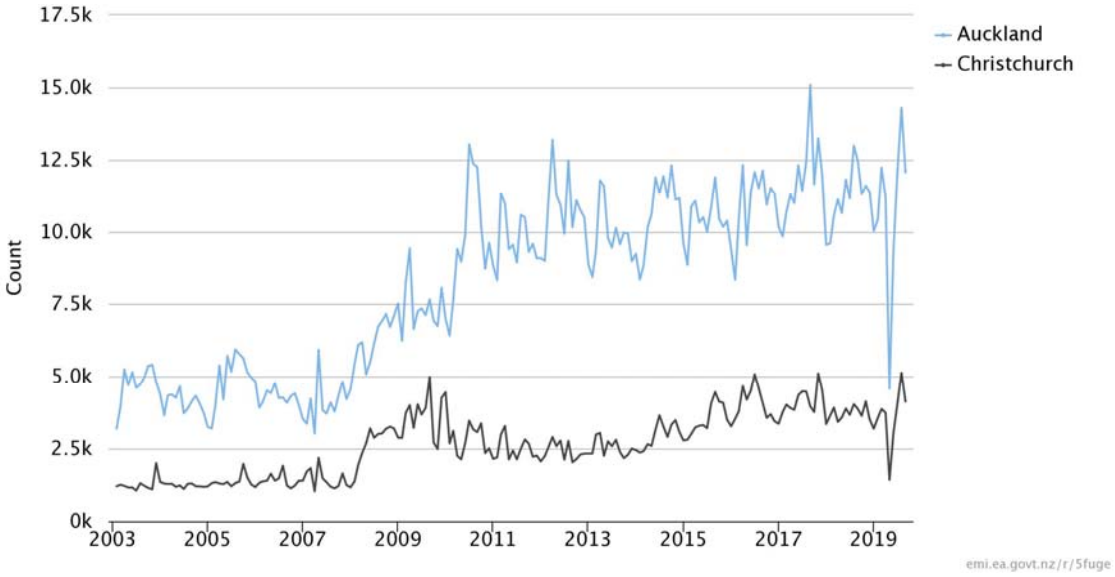
Figure 4: Number of retailers active in New Zealand 2003 - 2020

Source: EMI

Figure 5 shows consumer switching statistics, which is another indicator of retail competition. More switching is shows that more consumers are able to respond to competitive retail offerings. It follows that there is either a price war underway or more retailers entering the market if switching volumes are going up. Again, without providing supporting statistical analysis, the chart shows switching rising in Auckland in line with increased use of futures and an increase in the number of retailers.

Switching volumes in Christchurch is not as buoyant as in Auckland. We note that the percent of switches per ICPs is similar in the two markets but competition appears to be targeted at the higher population market.

Figure 5: Consumer switching statistics in Auckland and Christchurch 2003 – 2020.



Source: EMI

In Figure 6 we have plotted the only retail electricity price series we can identify, the Quarterly Survey of Domestic Electricity Prices (QSDEP) produced by the Ministry of Business, Innovation and Employment (MBIE). MBIE describes the series as follows:

> The QSDEP indicator:
>
> - monitors tariffs publicly advertised in the retail electricity market on a particular date, and
> - is a measure of how the published residential electricity tariffs have changed over time.

We have overlaid the quarterly "energy and other component" component of retail tariffs from QSDEP with the following series:[14]

[14] Note that all series are nominal prices.

- The daily settlement price of short-dated quarterly base load futures, averaged over a quarter. This series lags the quarterly retail pricing by two quarters. For instance, in Figure 6, 2020 Q1 retail prices align with 2019 Q3 futures prices. Short-dated contracts expire within 12 months of the trade date.
- The time-weighted average wholesale spot price for the quarter preceding the previous retail pricing quarter (as with futures above).

This simulates, at any point in time, the spot market environment and futures prices available if the retailer elects to add to or reduce their hedge position. We 'lag' the spot and futures price series behind the retail series to represent the most recent information available to retailers to inform future pricing (90 days into the future).

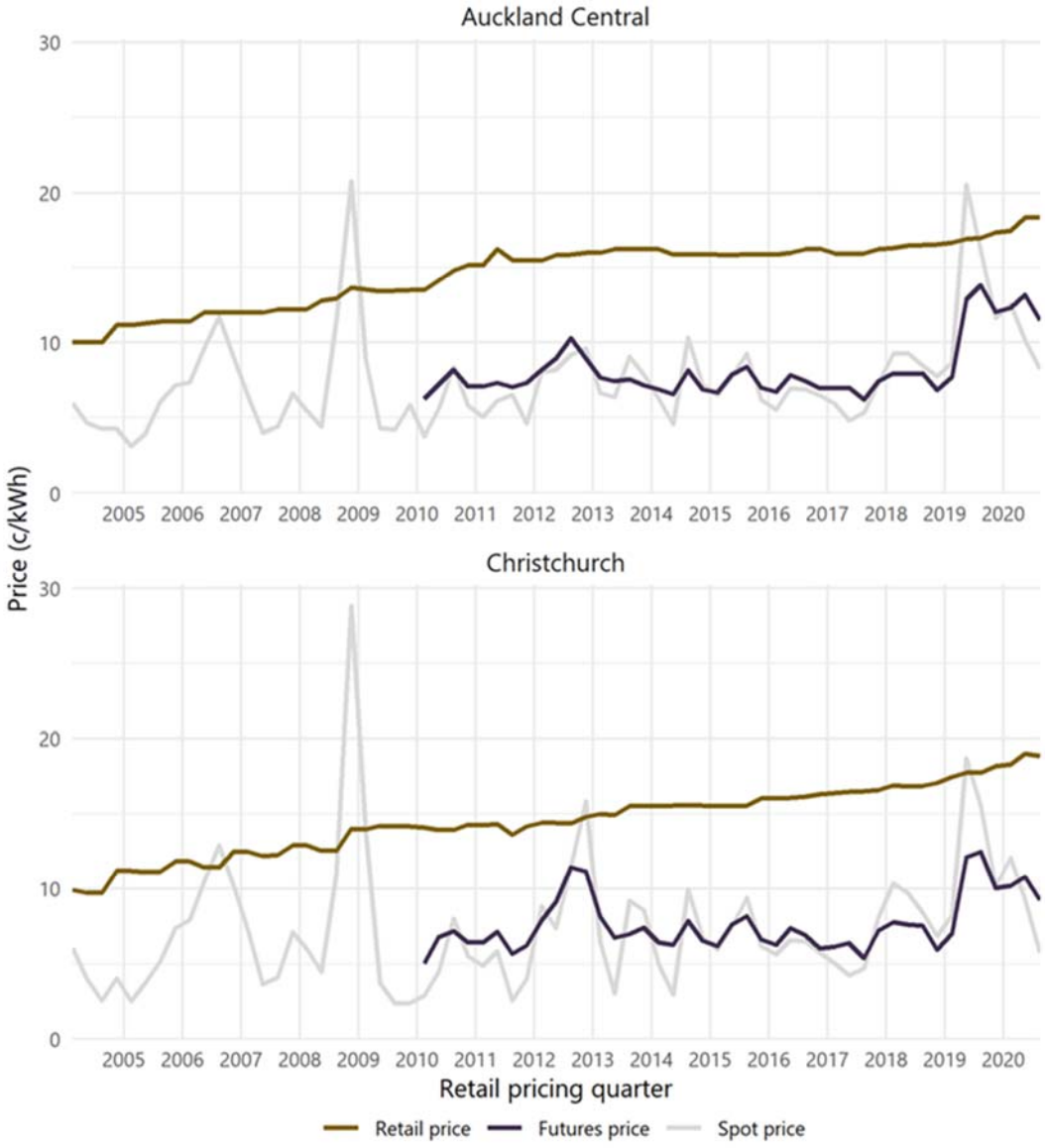
On these charts we can see:

1. Three significant upticks in retail prices following high average quarterly wholesale prices in 2006, 2008 and 2019.

2. A period of relatively flat retail prices between 2012 and 2018 especially in Auckland. This matches lower volatility in wholesale prices following the formation of the Electricity Authority, a focus on improving liquidity in the futures market by the Authority and the voluntary market making arrangements four vertically integrated generator retailers entered into.

3. Retail prices have risen following the market events of later 2018 and on into 2019. These are the events that led to the market makers agreeing to tighter voluntary market making obligations in Jun 2019 and the Authority to address the market making arrangements with urgency in February 2020.

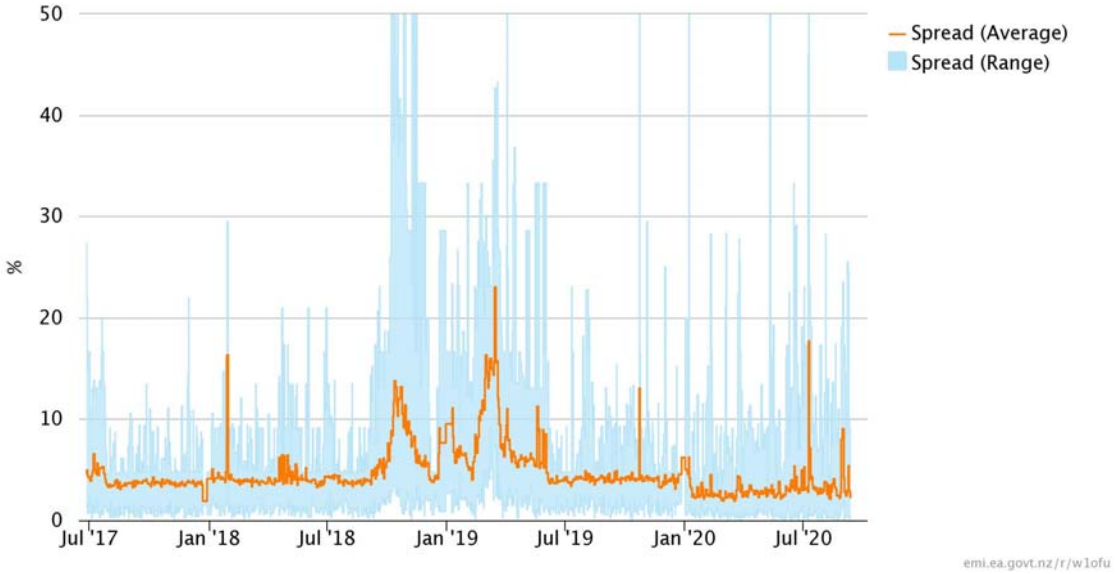
Figure 6: The energy component of retail tariffs, short-dated quarterly base load futures contract prices compared for the period and spot (wholesale) prices 2005 – 2020.



Source: Sapere, data sourced from MBIE and the Authority's Electricity Market Information website (EMI)

Figure 7 shows the spreads in the futures market for the period July 2017 to September 2020. This covers the end of the long period from 2012 to 2018 when prices were not highly volatile, the high volatility in late 2018/early 2019, and the point where bid ask spreads narrowed from 5 per cent to 3 per cent.

Figure 7: Average spread in the futures market and range per session.



Source: EMI

Analytically, we would estimate the degree to which the energy component of retail prices is impacted by the narrower spread. We would attribute the reliability of the narrower spread that was reinforced by the introduction of the backstop market making provisions including the penalty regime. However, it is not possible to make that link statistically. No series of retail offerings is available other than the series we show in Figure 6, and the independent retailers have declined to offer any supporting evidence for such a link. We conclude that even though we are unable to quantify the benefits to consumers, the step to reinforce the tighter spreads and lower rate of withdrawal from market making through the mandatory backstop will have a positive impact on retail prices. Further, we are confident that any impact would be positive to the extent that independent retailers will either continue to compete on price as they do today or be bolder in their competitive offerings, armed with the confidence they get from the measure. It is reasonable to expect that the change to the voluntary scheme and the regulatory backstop will lead to retail prices (including those offered by vertically integrated firms due to competition) that would be lower than would otherwise be the case.

Where possible, quantify and value the costs

In order to quantify and value the incremental costs we have to identify costs that are incurred in as a result of the measure being introduced into the Code, in addition to the current cost of market making. In the same way we account for the benefits flowing from the change to the voluntary measures that are held in place by the provisions in the Code, we have to acknowledge that the capital allocation and realised losses by market makers may go up.

In futures markets, where a trader holding a futures contract is marked-to-market (i.e. the position is valued for prudential purposes), or closes out a position, another participant will benefit or lose the exact corresponding amount. In other words, futures are a zero-sum game where one trader's gain is another's loss. This is referred to as a wealth transfer, and the Authority does not consider any such

trading losses incurred by a market maker qualify as an efficiency benefit. The Authority has set out its interpretation of the Competition limb including its view on the treatment of a wealth transfer:[15]

> 2.2 Competition limb
>
> 2.2.1 In regard to competition the Authority notes that:
>
> (a) consistent with the Commerce Act, the Authority interprets competition to mean workable or effective competition;
>
> (b) facilitating or encouraging increased competition applies to both buyers and sellers in the markets for electricity and electricity-related services;
>
> (c) the benefits of competition refer to efficiency benefits, not wealth transfers, arising from price movements, but it includes any efficiency effects that may arise from wealth transfers;
>
> (d) efficient entry and exit in markets are not necessarily orderly; and
>
> (e) workably competitive markets can bring very large benefits to consumers over the long term if they are conducive to entry by innovative suppliers and conducive to efficient investment.

However, item 2.2.1 (c) above allows for the inclusion of "efficiency effects that may arise from wealth transfers". If it is the case that the narrower spreads locked in trough the Code change are a benefit, then it follows that the benefits to consumers arising from the wealth transfer would qualify as a positive for the CBA.

[15] Electricity Authority, Interpretation of the Authority's statutory objective 14 February 2011

Appendix A Features of market making schemes

Features of the different phases of market making in New Zealand electricity futures are shown in the table below. The proposed code change is to impose the codified backstop obligations if market makers fail to meet their voluntary obligations

Feature:	VOLUNTARY OBLIGATIONS:			BACKSTOP CODE OBLIGATIONS:	
	Prior to May 2019	May 2019 – Jan 2020	From Jan 2020	Under urgency Feb 2019 – Nov 2020	Proposed mandatory
Nodes	Otahuhu and Benmore	Otahuhu and Benmore	Otahuhu and Benmore	Otahuhu and Benmore	Otahuhu and Benmore
Monthly contracts	Not consistently provided	Front six contracts	Front six contracts	Front six contracts	Front six contracts
Quarterly contracts	All contracts	All contracts	All contracts	All contracts	All contracts
Volume on bid and offer	Quarterly only - 30 lots	Monthly - 10 lots Quarterly - 10 lots (Spot, Spot + 1) 30 lots (other quarters)	Monthly - 30 lots Quarterly - 30 lots	Monthly - 30 lots Quarterly - 30 lots	Monthly - 30 lots Quarterly - 30 lots
Maximum spread	5% all contracts	5% all contracts	3% all contracts	3% all contracts	3% all contracts
Minimum spread	$2 all contracts	$2 all contracts	$2 all contracts	$2 all contracts	$2 all contracts
Volume refresh ("reload")	Not recently	No	No	No	No
Fast market provisions	No	No	No	No	No
Trading session exemptions	Portfolio stress	5 sessions per month	5 sessions per month	2 sessions per month	2 sessions per month
Trading window	3:30 to 4:00 pm	3:30 to 4:00 pm	3:30 to 4:00 pm	3:30 to 4:00 pm	3:30 to 4:00
Market maker performance reporting	To ASX	To Electricity Authority	To Electricity Authority	To Electricity Authority	To Electricity Authority
Minimum number of market makers	4	4	4	4	4
Penalty for failure to meet obligations	Not applicable (outside code)	Not applicable (outside code)	Not applicable (outside code)	Up to $0.2m per event (Rulings Panel)	Up to $0.2m per event (Rulings Panel)
Rebate (ASX incentive $ minimal)	Withdrawn if fail to meet obligations	Withdrawn if fail to meet obligations	Withdrawn if fail to meet obligations	Withdrawn if fail to meet obligations	Withdrawn if fail to meet obligations

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Appendix B Regulatory statement

Objectives of the proposal

B.1 The objectives of the proposal are to ensure market making is enduring and fit for purpose. Market making services will support a robust forward price curve and enable efficient risk management by addressing the key issues of:

(a) the apparent lack of confidence in the market for exchange-traded futures in general, and in market making services in particular;

(b) the desire to increase the reliability of market making services; and

(c) the importance of market making being service-orientated, where the level of service provided is informed by those that use and contribute to the cost of provision.

The proposal's benefits outweigh its costs

B.2 The Authority has analysed the costs and benefits of the proposal and has determined that the proposal's benefits outweigh its costs. This analysis is set out in Appendix A.

The Authority has not identified other suitable means of addressing the objectives

B.3 The Authority assessed some options to address the objectives. However, the other options were not suitable for addressing the objectives. The selected proposal was best suited to address the objectives.

The proposal complies with section 32(1) of the Act

B.4 The Authority's objective under section 15 of the Act is to promote competition in, reliable supply by, and efficient operation of the electricity industry for the long-term benefit of consumers.

B.5 Section 32(1) of the Act says that the Code may contain any provisions that are consistent with the Authority's objective and are necessary or desirable to promote one or all of the following:

Table 1: How the proposal complies with section 32(1) of the Act

a) competition in the electricity industry;	The proposal supports competition in the electricity industry because it would enhance the performance of the electricity futures market, allowing parties to effectively manage their price risk, encouraging greater levels of competition in the retail and generation sectors.
b) the reliable supply of electricity to consumers;	N/A
c) the efficient operation of the electricity industry;	The proposal supports the efficient operation of the electricity industry because it would enhance the robustness of the electricity forward curve, allowing

	market participants and others to make more efficient investment and operational decisions.
d) the performance by the Authority of its functions;	The proposal does not impact the performance by the Authority of its functions.
e) any other matter specifically referred to in this Act as a matter for inclusion in the Code.	The proposed amendment would not materially affect any other matter specifically referred to in the Act for inclusion in the Code.

The Authority has given regard to the Code amendment principles

B.6 When considering the proposal, the Authority has complied with its Consultation Charter[10] and has had regard to the following Code amendment principles, to the extent that the Authority considers that they are applicable.

Table 2: Regard for Code amendment principles

Principle	Comment
1. Lawful	The proposal is lawful because it is consistent with the Authority's statutory objective and with the empowering provisions of the Act.
2. Provides clearly identified efficiency gains or addresses market or regulatory failure	The proposal is consistent with principle 2 because it improves the confidence and reliability of the futures market which requires a Code amendment to resolve.
3. Net benefits are quantified	The extent to which the Authority has been able to quantify the benefits of the proposal are set out in Appendix A. The Code amendment principles recognise that quantitative analysis is not always possible. This is the case with the Authority's proposal. However, the Authority is confident the benefits of the proposal outweigh its costs.

[10] Available at: https://www.ea.govt.nz/assets/dms-assets/14/14242consultation-charter.pdf.

Appendix C Proposed Code amendment

Electricity Industry Participation Code Amendment
(Hedge Market Arrangements) [XXXX]

Under section 38 of the Electricity Industry Act 2010, and having complied with section 39 of that Act, I make the following amendment to the Electricity Industry Participation Code 2010.

At Wellington on the ____ day of [XXXX]

_____

[XXXX]
Chairperson
Electricity Authority

Certified in order for signature:

_____	_____
[XXXX]	[XXXX]
Senior Legal Counsel	[XXXX]
Electricity Authority	[XXXX]
___ [XXXX]	___ [XXXX]

Contents

_____

Amendment

1 Title
This is the Electricity Industry Participation Code Amendment (Hedge Market Arrangements) [XXXX].

2 Commencement
This amendment comes into force on [XXXX].

3 Code amended
This amendment amends the Electricity Industry Participation Code 2010.

4 Clause 1.1 amended
(1) In clause 1.1(1), replace the definition of **ASX** with:
"**ASX** means the Australian Securities Exchange Limited"
(2) In clause 1.1(1), replace the definition of **ASX NZ electricity future** with:
"**ASX NZ electricity future** means an ASX New Zealand Electricity Base Load Futures Contract available for trade on the ASX"

(3) In clause 1.1(1), replace the definition of **bid-ask spread** with:
"**bid-ask spread** means—
(a) if expressed as a dollar value, the dollar value that represents the difference in price between a **quote** to buy an **ASX NZ electricity future** and a **quote** to sell an **ASX NZ electricity future** of the same type; or
(b) if expressed as a percentage, the percentage calculated by dividing the difference between the price of a **quote** to buy an **ASX NZ electricity future** and the price of a **quote** to sell an **ASX NZ electricity future** of the same type by the price of the **quote** to sell an **ASX NZ electricity future**"

(4) In clause 1.1(1), replace the definition of **NZEF market-making agreement** with:
"**NZEF market-making agreement** means an agreement between a **participant** and **ASX** that imposes obligations on the **participant** in relation to **ASX's** daily settlement market-making scheme for **ASX NZ electricity futures**"

(5) In clause 1.1(1), replace the definition of **NZEF market-making period** with:
"**NZEF market-making period** means from 1530 to 1600 New Zealand time on each **business day** on which **ASX NZ electricity futures** are traded"

(6) In clause 1.1(1), replace the definition of **quote** with:
"**quote** means an offer to buy or sell an **ASX NZ electricity future** on the ASX"

5 Heading above clause 13.236J replaced

Replace the heading above clause 13.236J with:

"Subpart 5B—Hedge market arrangements"

6 Clause 13.236J replaced (Contents of this subpart)

Replace clause 13.236J with:

"**13.236J Contents of this subpart**

This subpart provides for an active market for trading financial hedge contracts for **electricity** by specifying requirements for certain **participants**."

7 Clause 13.236K replaced (Application of subpart)

In clause 13.236K, replace subclauses (1), (2)(a) and (2)(c) with:

"**13.236K Application of subpart**

(1) Subject to subclause (2), this subpart applies to the following **participants**:
(a) Contact Energy Limited;
(b) Genesis Energy Limited;
(c) Mercury NZ Limited;
(d) Meridian Energy Limited.

(2) This subpart applies to a **participant** specified in subclause (1) if that **participant**–
(a) is not a party to a **NZEF market-making agreement** that includes the requirements set out in clause 13.236L; or
(c) does not perform market-making services in accordance with the **NZEF market-making agreement** on three or more separate occasions in a period of 90 days, and that non-performance is not permitted by an exemption or otherwise under the **NZEF market-making agreement**."

8 Clause 13.236L replaced (Requirement to quote)

Replace clause 13.236L with:

"**13.236L Requirement to quote**

(1) Subject to subclause (3), the **participant** must, for a minimum of 25 minutes in every **NZEF market-making period**, provide **quotes** to buy and sell a minimum of—
(a) 30 monthly base load futures (**ASX** designated codes ED and EH) contracts (being 30 buy and 30 sell) for the current month and each of the five months following the current month; and
(b) 30 quarterly base load futures (**ASX** designated codes EA and EE) contracts (being 30 buy and 30 sell) for each quarter that is available for trade on the ASX.

(2) The **participant** must not provide a **quote** under subclause (1) with a **bid-ask spread** that exceeds the greater of 3% or NZ$2.

(3) The quantity of buy or sell **quotes** the **participant** must provide under subclause (1) for each **NZEF market-making period** is reduced by the number of contracts of the same type bought or sold by the **participant** during that **NZEF market-making period**."

9 Clause 13.236N replaced (Exemptions from requirement to quote)

Replace clause 13.236N with:

"**13.236N Exemptions from requirement to quote**

(1) The **participant** is exempt from the requirements in clause 13.236L in the following circumstances:

(a) for a **NZEF market-making period** if—

(i) the **participant** cannot comply with a requirement in clause 13.236L in that **NZEF market-making period** because the ASX trading platform is disrupted or unavailable; or

(ii) in the reasonable opinion of the **participant**, entering into a contract for an **ASX NZ electricity future** in that **NZEF market-making period** may cause the **participant** to breach an applicable law;

(b) in addition to the exemptions in paragraph (a), for up to two **NZEF market-making periods** each month at the **participant's** discretion.

(2) To avoid doubt, if the **participant** meets the criteria for exemption in subclause (1)(a)(i) or (1)(a)(ii) in relation to a **NZEF market-making period**, that **NZEF market-making period** will not count towards the **participant's** two exemptions in subclause (1)(b).

(3) If the **participant** relies on an exemption under this clause 13.236N from the requirement to **quote**, the **participant** must immediately notify the **Authority** of the exemption it has relied on and the basis for the exemption."

Explanatory Note

This note is not part of the amendment, but is intended to indicate its general effect.

This amendment to the Electricity Industry Participation Code 2010 (Code) comes into force on [XXXX].

The amendment replaces the urgent changes made by the Electricity Industry Participation Code Amendment (Hedge Market Arrangements) 2020. The amendment describes a scheme that, if triggered into effect by the occurrence of specified events, will facilitate an active market for trading financial hedge contracts for electricity. The scheme will do so by imposing certain market-making obligations on Contact Energy Limited, Genesis Energy Limited, Mercury NZ Limited and / or Meridian Energy Limited if their respective actions trigger the application of the scheme to them.
