# Wholesale markets - Trading conduct

## Consultation paper

Submissions close: 5.00pm, 23 March 2021

09 February 2021

# Foreword

New Zealand has a secure, affordable and sustainable electricity system as a base to support the transition to a low-emissions economy. This system is underpinned by an electricity market where several participants respond to price signals in a way that ensures the lights stay on – with supply meeting demand in the short, medium, and long term. Despite these advantages there are opportunities to better prepare for the future while ensuring the market is working well for consumers in the present.

The question at the heart of the proposal in this paper is - *when consumers are reliant on one or a few suppliers to meet their demand, does the behaviour of these suppliers support the long-term benefit of consumers?* The analysis conducted by the Market Development Advisory Group and supported by the Authority suggests that there is room for improvement.

The diverse nature of New Zealand's electricity market means that, from time to time, the system relies heavily on one or a small number of suppliers to meet demand. Electricity markets need rules to ensure that parties with the ability and incentive to take advantage of such situations are prevented from doing so. This is an issue the industry had previously tried to tackle. I am confident that reforming the trading conduct rules will be a marked improvement on the status quo and will help the industry to successfully navigate the future. If that doesn't happen, the Authority will consider more direct interventions to address this issue.

Concern about the conduct of participants during periods of heavy reliance on a small number of suppliers has been increasing within the industry in recent years – particularly since the Pohokura gas outages in 2018 that heralded an end to a long period of stability and signalled an increased need for generation investment. As the economy transitions to a low-emissions future, and as supply and demand are stimulated over the coming decades, it is possible that more suppliers will experience transient market power more frequently. This reform will help ensure consumer interests are protected as this transition occurs.

The trading conduct review is a key project in the Authority's wholesale markets work programme. Over the past year, the Authority has made significant progress with this programme which collectively will help parties be increasingly confident in wholesale market competition, the efficiency of prices and the forward price curve. The programme will enhance wholesale market information disclosure, ensure enduring market-making arrangements, clarify trading conduct rules, improve disclosure of internal transfer pricing and more closely monitor contract prices and new-generation costs.

The review aligns with a focus from the Authority in coming years on our monitoring, enforcement and compliance functions. This year the Authority will invest in, and expand, these capabilities to effect a step-change in our compliance approach. On behalf of the Authority, I would like to thank the Market Development Advisory Group who completed a robust review of the high standard of trading conduct provisions. I would also like to thank the evaluation panel members who provided high-quality advice that greatly contributed to the review of these provisions.

I look forward to discussing this further with industry. I encourage you to engage with the Authority on this important review to help ensure that long-term consumer interests are promoted.

James Stevenson-Wallace

Chief Executive

# Executive summary

The Electricity Authority (Authority) is proposing to replace the current high standard of trading conduct (HSOTC) provisions in the Electricity Industry Participation Code 2010 (Code) with a new rule intended to be more effective at preventing inefficient prices when competition is weak in the wholesale spot electricity market. The purpose of this paper is to consult and seek stakeholder feedback on this proposal.

Trading conduct rules are warranted because at various times and locations, parties have the ability and incentive to make offers in the wholesale electricity spot market that are detrimental to economic efficiency, such as the exercise of significant market power by participants when the electricity supplied by these participants is necessary to ensure supply and demand are balanced.

The Authority expects the proposed trading conduct rule ("proposed rule") to improve efficiency, and strengthen confidence, in the wholesale electricity spot market for the long-term benefit of consumers. This rule will also support and build on the Authority's work to address the recommendations of the Electricity Price Review (EPR) relating to the wholesale market.

In November 2017, the Authority sought advice from the Market Development Advisory Group (MDAG) on whether the current trading conduct provisions are *"adequate to promote the Authority's statutory objectives, or whether changes are required to better promote outcomes consistent with workable competition"*. The policy objective for the review was to *"improve confidence in the efficiency of prices when competitive pressures in the wholesale market are weak".*

In December 2020, the MDAG completed its review of these provisions and made several recommendations for reform, including that these provisions are replaced with a new rule that uses a counterfactual approach and is underpinned by an orthodox economic efficiency framework that is easier to interpret and apply in practice.

The Authority has analysed the MDAG's recommendations and this paper sets out its response to these recommendations and the reasons for accepting them. The Authority is seeking feedback on its proposal including to amend the Code, as recommended by the MDAG, and replace the current provisions (clauses 13.5A and 13.5B and the definition of 'pivotal') in the Code with the proposed trading conduct rule set out in section 4.

The proposed rule would require generators and ancillary service agents to ensure that all their offers are consistent with offers they would have made in a market where no party could exercise significant market power, irrespective of whether they are pivotal or not. This approach better aligns with the Authority's statutory objectives.

This proposal is expected to better accomplish the intended purpose of having a trading conduct mechanism in the Code and it is expected to result in higher net benefits than the status quo. The cost-benefit analysis (CBA) in Appendix D shows that ineffective trading conduct provisions could encourage over-investment in supply capacity, and that an over-investment of just 0.5% in unnecessary capacity would result in an efficiency cost of $40m to $60m in present value terms. In the CBA, it was concluded that:

- the proposed trading conduct rule is expected to produce greater gross economic benefits than the current rule.
- the proposed trading conduct rule is expected to reduce unintended costs and reduce (or at worse have no net effect) on compliance and enforcement costs.
- because total costs are expected to be lower and gross benefits higher under the proposed trading conduct rule, then net benefits will increase under the proposed rule.

The Authority will support the proposed rule by strengthening its monitoring, enforcement and compliance functions. Additional resources[1] are expected to be allocated to, amongst others, develop appropriate data analytics tools to carry out the level of scrutiny required under the proposed rule.

To further support the provisions in the Code, the Authority will continue to engage with the Ministry for Business, Innovation and Employment (MBIE) on its review of the Electricity Industry Act 2010 (Act) including the level of penalty for breaches under the Act. In the context of the wholesale market, the current maximum penalty of $200,000 per breach has a limited deterrence effect.

In December 2020, the Authority found an undesirable trading situation (UTS) occurred between 3-27 December 2019 and is now working on a draft actions to correct paper for consultation. The Authority expects to release the draft paper in March 2021. The Authority continues to investigate potential breaches of the HSOTC provisions in the Code in response to allegations made by the claimants about offering behaviour by South Island generators when they were spilling water from 10 November 2019. The Authority intends to complete these investigations in early 2021.

[1] In-line with the MDAG recommendations.

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## Tables



## Figures

# 1 The review of the trading conduct provisions is a key project in the wholesale markets work programme

1.1. Confidence in the market is undermined if parties can benefit from high prices that are raised to inefficient levels by exercising market power when competitive pressure is weak. Frequent recurrence of these occasions could substantially damage the integrity of the wholesale market and deter new players from entering and competing in the market to the detriment of consumers.

1.2. However, in periods of genuine scarcity, participants should be able to raise offer prices to signal tight supply that could arise from factors such as a shortage of fuel or low water levels at the supplier's node.

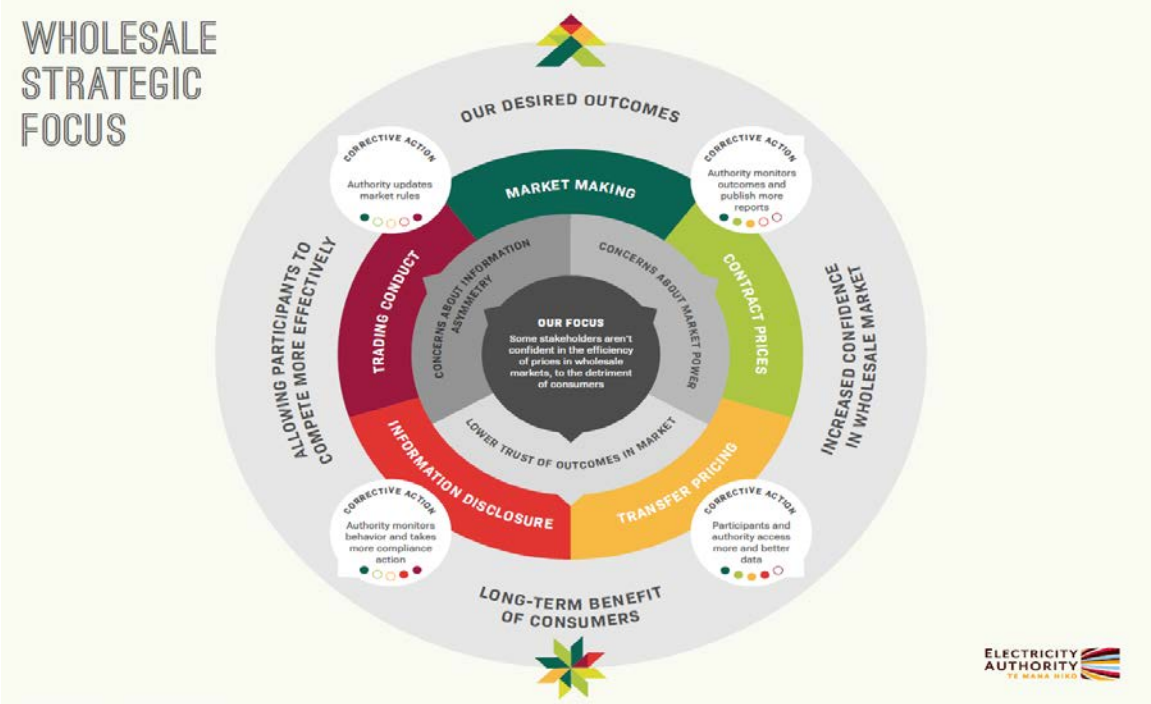
1.3. Well-functioning electricity markets incorporate mechanisms to prevent the abuse of market power but also allow prices to rise to signal genuine scarcity. The proposed trading conduct rule is intended to achieve this balance of objectives. It would be a key mechanism to improve productive, allocative, and dynamic efficiency in wholesale electricity spot prices in circumstances where competition is weak and improve confidence in the wholesale market for the long-term benefit of consumers.

1.4. The trading conduct review is one of several major projects the Authority is progressing as part of its wholesale markets work programme. This work programme includes initiatives to provide effective mechanisms for market participants to be able to manage their exposure to high prices, such as liquid hedge markets.

1.5. The wholesale markets work programme, in its entirety, is expected to enhance wholesale market information disclosure, ensure enduring market making arrangements, clarify trading conduct rules, improve disclosure of internal transfer pricing and more closely monitor contract prices and new-generation costs.

1.6. Figure 1 below illustrates the strategic focus of the wholesale markets work programme and its link with the Authority's strategic ambitions.

**Figure 1: Wholesale markets work programme and the Authority's strategic ambitions**



1.7. The wholesale market work programme supports the Authority's strategic ambitions of *thriving competition* and *trust and confidence* in the wholesale electricity market. When fully implemented, these projects will work together to ensure parties remain confident in wholesale market competition and improve the efficiency of spot and forward electricity prices. This work programme as a whole, responds to and addresses concerns with the wholesale market identified by the EPR. While not part of the final EPR suite of recommendations, the Authority considers that clear trading conduct rules will support and build on the findings of the EPR.

## What this consultation paper is about

1.8. The purpose of this paper is to consult with interested parties on the Authority's proposal to replace the current trading conduct provisions (clauses 13.5A and 13.5B and the definition of "pivotal") in the Code with the proposed rule set out in section 4.

1.9. The current trading conduct provisions came into effect in June 2014 and have been tested by several events in subsequent years which highlighted deficiencies in how these provisions were promoting efficient offering behaviour by generators and ancillary service agents in the wholesale electricity spot market.

1.10. In November 2017, the Authority asked the MDAG to review these provisions and advise the Authority if they are fit-for-purpose or if new provisions would better accomplish their intended purpose.

1.11. The MDAG completed this review in December 2020 and made several recommendations including replacing the current provisions with the proposed rule. The MDAG further recommended the Authority strengthen its monitoring, enforcement and compliance functions to support this rule and to continue engaging with MBIE to raise the maximum penalties applicable for breaches of the Code, including the trading conduct provisions.

1.12. **The Authority agrees with the MDAG's recommendations and intends to progress them as a matter of priority.** The Authority is now consulting to seek stakeholder feedback on the proposal to amend the trading conduct provisions.

1.13. The proposed trading conduct rule and supporting measures are intended to improve the efficiency of wholesale electricity spot prices in situations where one or more market participants can exert significant market power. This will help to promote the three limbs of the Authority's statutory objective—competition, reliability, and efficiency—for the long-term benefit of consumers.

1.14. Section 39(1)(c) of the Act requires the Authority to consult on any proposed amendment to the Code and corresponding regulatory statement. Section 39(2) specifies that the regulatory statement must include a statement of the objectives of the proposed amendment, an evaluation of the costs and benefits of the proposed amendment, and an evaluation of alternative means of achieving the objectives of the proposed amendment. The regulatory statement is set out in section 6 of this paper.

# 2 Issue the Authority would like to address

2.1 The purpose of this section is to set out the problem definition and explain why the Authority is reviewing the trading conduct provisions (clauses 13.5A and 13.5B) at this time.

## The existing arrangements

2.2 The current trading conduct provisions were added to the Code in 2014 as a "low-risk" "light-handed" approach to *"improve confidence in the efficiency of prices when competitive pressures in the wholesale market are weak"* and built upon the findings of a review by the Wholesale Advisory Group (WAG) on pricing in pivotal supplier situations.[2] The current trading conduct provisions are reproduced in Appendix B.

2.3 Clause 13.5A requires generators offering generation and ancillary service agents offering instantaneous reserve to ensure that their offers are consistent with a "high standard of trading conduct". This criterion is not further defined in the Code.

2.4 Clause 13.5B defines a set of 'safe harbour' criteria. If a generator or ancillary service agent satisfies all these criteria, it is deemed to meet the trading conduct requirement.

2.5 Since the current provisions were promulgated, the Authority has examined several potential or alleged breaches of the current trading conduct provisions, five of which led to formal investigations, in particular:

(a) Meridian's offering behaviour on 2 June 2016 where Meridian submitted high offer prices while it was pivotal to prevent constraints forming on the HVDC. The Authority decided this behaviour did not comply with a high standard of trading conduct and issued a warning letter to Meridian but did not lay a formal complaint with the Rulings Panel because it was the first serious test of the Code's high standard of trading conduct provisions and its interpretation was still evolving.

(b) Mercury's offering behaviour on 8 December 2016 where Mercury withdrew reserves which resulted in high final prices for energy and reserves in the North Island. The Authority concluded that Mercury's offering behaviour did not comply with a high standard of trading conduct but did not lay a formal complaint with the Rulings Panel.

(c) Genesis's offering behaviour between 6-9 August 2018 at Tekapo A when it was 'islanded' (temporarily disconnected from the main grid). The Authority found that Genesis's behaviour did not represent a high standard of trading conduct because it used its pivotal supplier position to cause final prices to be well above the level prices would have been in a non-pivotal situation. Genesis was also not within the safe harbours under clause 13.5B(1) or (3). However, the Authority discontinued the investigation because it deemed that the cost of Rulings Panel proceedings would outweigh the financial harm caused by the breach and further noted that the Authority was proposing to make substantive amendments to the HSOTC provisions.

(d) Two ongoing investigations into Meridian and Contact's offering behaviour during a period from 10 November 2019 when these parties were spilling water in the South Island. These two investigations are ongoing and so they are not discussed further in this paper.

[2] For further information, see: https://www.ea.govt.nz/assets/dms-assets/15/15953WAG-recommendations-pivotal-pricing.pdf

2.6 As noted above, the Authority has also carried out several preliminary investigations on possible breaches of the current trading conduct provisions. These preliminary investigations found no breach of the Code, which was mainly because the parties alleged to have breached were within the safe harbour provisions, and therefore the Authority discontinued further investigation of these cases.

## Issues with the existing arrangements

2.7 In November 2017, the Authority asked the MDAG to review the HSOTC provisions following events that tested their effectiveness in promoting efficient offering by parties in a pivotal position. The Authority requested the MDAG to advise on whether the HSOTC provisions are *"adequate to promote the Authority's statutory objectives, or whether changes are required to better promote outcomes consistent with workable competition"*. The policy objective for this review was to *"improve confidence in the efficiency of prices when competitive pressures in the wholesale market are weak"*.

2.8 In their recommendations paper, the MDAG set out the problem definition, which stated that; *"[….]at various time and locations, parties have the ability and incentives to exercise significant market power in the New Zealand spot market. Generators are frequently gross pivotal across wide areas of the spot market. [….] the existing HSOTC provisions lack any clear meaning, [….] are opaque and do not necessarily translate at law into the economic efficiency framework assumed to date by the Authority."*

2.9 The MDAG summarised the problems it identified with the provisions as follows:

(a) The root legal meaning of "high standard of trading conduct" does not relate to abuse of market power. Further, what it means is somewhat amorphous.

(b) To the extent that coverage of pivotal situations is derived in the legal interpretation of 'high standard of trading conduct', the legal tests of compliance do not necessarily map across to a coherent economic efficiency framework.

(c) If an economic efficiency framework were to be derived by the courts for HSOTC:

  (i) It would not necessarily use the assumptions and benchmarks assumed by the Authority; and

  (ii) It would not necessarily be exclusive of other non-efficiency criteria in assessing compliance.

(d) If the benchmark for high standard of trading conduct was to reflect the Authority's interpretation of its statutory objective with respect to its competition limb, which is workable competition with prices tending in the long-term toward competitive levels, such a counterfactual is not necessarily useful in assessing the efficiency of high short term prices in a pivotal situation.

(e) As with any rule, its effectiveness depends on monitoring and enforcement. At the outset, the Authority acknowledged that "a rigorous monitoring programme" would need to be part of the HSOTC package, and the WAG noted the importance of frequency of enforcement. It could be argued the HSOTC provisions provided effective deterrence, which is reflected in requiring only five enforcement actions to date. On the other hand, this number of enforcement actions could be seen as an indication of under resourcing in monitoring and compliance action, or the difficulty in enforcing the provisions in practice.

(f) Like most conduct mechanisms, a rule requiring a "high standard of trading conduct" in pivotal situations runs counter to the underlying ability and incentives of pivotal parties to exercise market power to advance their economic interests. On a first-principles analysis, a HSOTC rule is much less likely to be effective than incentive-aligned measures.

(g) There are several problems with the 'safe harbour' provisions in the current HSOTC provisions – namely they:

(i) shelter and facilitate behaviour inconsistent with a HSOTC;

(ii) are not available to some power plants;

(iii) are difficult to apply in practice;

(iv) are legally uncertain;

(v) are too lax for non-pivotal parties even if their offering behaviour is inefficient;

(vi) use an odd regulatory design.

2.10 The Authority agrees with the summary of the problems and the assessment of the issues with the current provisions. The Authority has previously set out its views[3] and noted that there were disparate opinions on what is a high standard of trading conduct and that these provisions may require further refinement and clarification to assist market participants.

2.11 The problem definition and issues have been thoroughly tested by the MDAG and interested parties who submitted on the MDAG's discussion paper (February 2020) and supplementary consultation paper (October 2020). Along with consideration of the findings of the two evaluation panels convened by the MDAG.

## Why the Authority is addressing these issues now

2.12 The MDAG completed the review of the high standard of trading conduct provisions in December 2020 and have recommended the Authority:

(a) replace the current high standard of trading conduct provisions in the Code (clauses 13.5A and 13.5B and the definition of "pivotal" in Part 1 of the Code) with the trading conduct rule set out in section 4;

(b) put in place a more active monitoring regime of market performance, complemented by frequent 'please explain' notifications;

(c) better resource the Authority's monitoring, enforcement and compliance arms; and

(d) engage with MBIE, as the Ministry responsible for administering the Electricity Industry Act 2010, to consider raising the maximum penalty applicable for breaches of the trading conduct provisions.

2.13 The Authority agrees with these recommendations and considers the proposed rule and supporting measures would better address the policy objective of the trading conduct provisions.

[3] See the Authority's Decision [online] Available at: https://www.ea.govt.nz/assets/dms-assets/22/221144May17-Meridian-discontinue-investigation.pdf

2.14 The Authority is progressing these recommendations as a matter of priority given the importance of trading conduct rules to promote thriving competition and trust and confidence in the wholesale electricity spot market.

## Decision to further consult

2.15 As part of their review process, the MDAG consulted with stakeholders on the proposed trading conduct rule and on other related matters, including whether the Authority should itself consult on the Code amendment proposal to replace the current HSOTC provisions.

2.16 Submitters' feedback was mixed — some submitters[4] did not support the Authority proceeding to a Code amendment without further consultation while other submitters[5] supported proceeding straight to Code amendment in view of the extensive consultation already undertaken by the MDAG.

2.17 The Authority has decided to undertake a full consultation in accordance with section 39 of the Act and in view of the materiality of the proposed Code amendment and the controversial nature of *any* trading conduct rule.

2.18 A full consultation ensures that all stakeholders can provide their feedback to the Authority on the proposed rule and on other aspects related to the proposal at the same time.

**Q1. Do you agree with the issues identified with the current trading conduct provisions (clauses 13.5A and 13.5B) in the Code? Please provide the reasons for your answer.**

[4] Genesis, Meridian, Trustpower and MEUG
[5] Haast Energy and the non-integrated retailers

# 3 The MDAG have conducted a robust review of the trading conduct provisions

3.1 The MDAG conducted a thorough review of the current provisions, and in the process, they have developed a substantial body of work on the policy aims, rationale for, and importance of trading conduct rules within the context of an energy-only market.

3.2 The Authority is confident the MDAG undertook a robust review process. A timeline of the MDAG's review process is detailed in their recommendations paper and is illustrated in Appendix C.

3.3 As noted in paragraph 2.11 above, in developing the proposed trading conduct rule, the MDAG held two separate consultation processes with industry participants – a first consultation on a discussion paper issued in February 2020 and a second supplementary consultation paper issued in October 2020.

3.4 The proposed trading conduct rule received positive feedback from most submitters on the supplementary consultation paper. There was broad agreement between market participants that this rule is clearer than the current provisions. Some submitters offered alternative drafting to the rule and others raised various concerns including on its interpretation and practicability in the context of day-to-day trading decisions.

3.5 In addition to the consultation, the MDAG obtained expert advice from two independent evaluation panels[6] to act as proxies for the Rulings Panel or courts and apply the current provisions and an initial proposed rule to scenarios based on real world situations. The Authority understands the MDAG undertook this step to test and address the risk that its recommended trading conduct rule would be interpreted differently than as intended. The panel findings[7] reinforced the MDAG's conclusion that the proposed trading conduct rule is clearer than the current provisions.

3.6 The MDAG kept market participants abreast of key milestones and held several bilateral meetings, workshops and consultations with interested stakeholders including on the findings of the evaluation panels process.

3.7 This review process generated a substantial body of work that is a useful source of information for market participants to better understand and implement the proposed rule, if it is introduced in the Code. The Authority has made all materials and learnings available on its website8 and intends to make available all future decisions by the Rulings Panel or the courts to further firm up the interpretation of the proposed rule.

[6] The panel members included two former Court of the Appeal judges, former Chairs of the Commerce Commission, a former State Services Commissioner and a former Commerce Commissioner.
[7] [online] Available here: https://www.ea.govt.nz/development/work-programme/pricing-cost-allocation/review-of-spot-market-trading-conduct-provisions/development/mdag-high-standard-of-trading-conduct-evaluation-panels-2/
[8] [online] Available here: https://www.ea.govt.nz/development/work-programme/pricing-cost-allocation/review-of-spot-market-trading-conduct-provisions/

# 4 The Authority is proposing to replace the current trading conduct provisions with a new rule

4.1 The purpose of this paper is to consult with interested parties on the Authority's proposal — which is consistent with the MDAG's main recommendation — to replace the high standard of trading conduct provisions (clauses 13.5A and 13.5B and the definition of "pivotal") in the Code with the following trading conduct rule:

> (1) In the spot market –
>
> (a) it is expected that **offers** and **reserve offers** will generally be subject to competitive disciplines such that no party has significant market power;
>
> (b) however, there may be locations where, or periods when, one or more generators, or ancillary service agents, as the case may be, has significant market power.
>
> (2) Accordingly –
>
> (a) where a **generator** submits or revises an **offer**, that offer must be consistent with the **offer** that the **generator,** acting rationally, would have made if no **generator** could exercise significant market power at the **point of connection** to the **grid** and in the **trading period** to which the **offer** relates;
>
> (b) where an **ancillary service agent** submits or revises a **reserve offer**, that **offer** must be consistent with the **reserve offer** that the **ancillary service agent**, acting rationally, would have made if no **ancillary service agent** could exercise significant market power at the **point of connection** to the **grid** and in the **trading period** to which the **reserve offer** relates;
>
> (3) For the purposes of this clause –
>
> (a) market power becomes significant when its exercise would have a net adverse impact on economic efficiency, which includes productive, allocative and dynamic efficiency;
>
> (b) "spot market" has the same meaning as **wholesale market** except that it excludes the hedge market for **electricity** (including the market for **FTRs**).

## The proposed trading conduct rule sets a much clearer standard of behaviour

4.2 The proposed rule would require generators and ancillary service agents to offer energy or reserves that are consistent with offers they would have made in a market where no party could exercise significant market power and applies irrespective of whether they are pivotal or not.

4.3 The proposed rule is better aligned with the Authority's statutory objectives and the intent of the trading conduct provisions in the Code because it is based on a well-established approach in law and economics for assessing whether prices are efficient. It sets a clear standard of behaviour that uses a counterfactual approach and is based on an orthodox economic efficiency framework.

4.4 The Authority expects this approach to provide more certainty than the current trading conduct provisions. The Authority has noted the MDAG's review findings that the current

provisions lack legal clarity and can shelter inefficient behaviour by parties that are pivotal. As stated in section 2, the Authority has previously set out its views[9] and noted that there were disparate opinions on what is a high standard of trading conduct and that these provisions may require further refinement and clarification to assist market participants (further detailed below).

4.5 The proposal is not expected to change the proper functioning of the spot market. Raising offer prices to signal tight supply at the supplier's node during periods of genuine scarcity arising from factors such as a shortage of fuel or low water levels would still be permitted if it reflects their opportunity cost. In New Zealand's energy-only, hydro-dominated system this is an essential feature of the market.

4.6 In a properly functioning market, signalling genuine scarcity through prices does not (and should not) rely on the exercise of significant market power but should be a feature of an effectively competitive market.

4.7 The Authority considers the proposed rule addresses the problems with, and has several advantages over, the current provisions, and it is a material improvement on the status quo. The problems with the current provisions are summarised in section 2 above and their assessment is set out in detail in Part C of the MDAG's discussion paper and in Part A of the MDAG's recommendations paper.

4.8 In summary, the proposed trading conduct rule has several advantages relative to the current provisions:

(a) it improves certainty of the decision-making framework the Authority will use to assess trading conduct by market participants in the wholesale electricity market.

(b) it leaves scope for participants to innovate in their offering behaviour provided they can justify their behaviour within the framework of the proposed rule, eg, a generator changing the quantities and prices offered in different tranches to better reflect their cost of generating under different conditions.

(c) removal of the safe harbours eliminates the problem of inefficient behaviour being wrongly sheltered, eg, sheltering of inefficient 'set and forget' offers by pivotal generators.

(d) in requiring offers to be "*consistent with offers made where there is no significant market power"* it uses a standard for which there is prior case law and understanding as to its meaning. As noted in the MDAG's recommendations paper (from para.59), market power *is "the ability to affect the market price even a little and even for a few minutes",* which implies that it is ubiquitous. However, what matters is the degree to which prices can be influenced by one party or group of coordinating parties, or the degree to which prices can be set above some relevant measure of economic costs. For this reason, the use of the adjective 'significant' is generally used in competition law and public policy to describe the degree of market power. The test[10] for when market power becomes 'significant' is when its exercise would have a net adverse impact on economic efficiency.

[9] See the Authority's Decision [online] Available at: https://www.ea.govt.nz/assets/dms-assets/22/221144May17-Meridian-discontinue-investigation.pdf

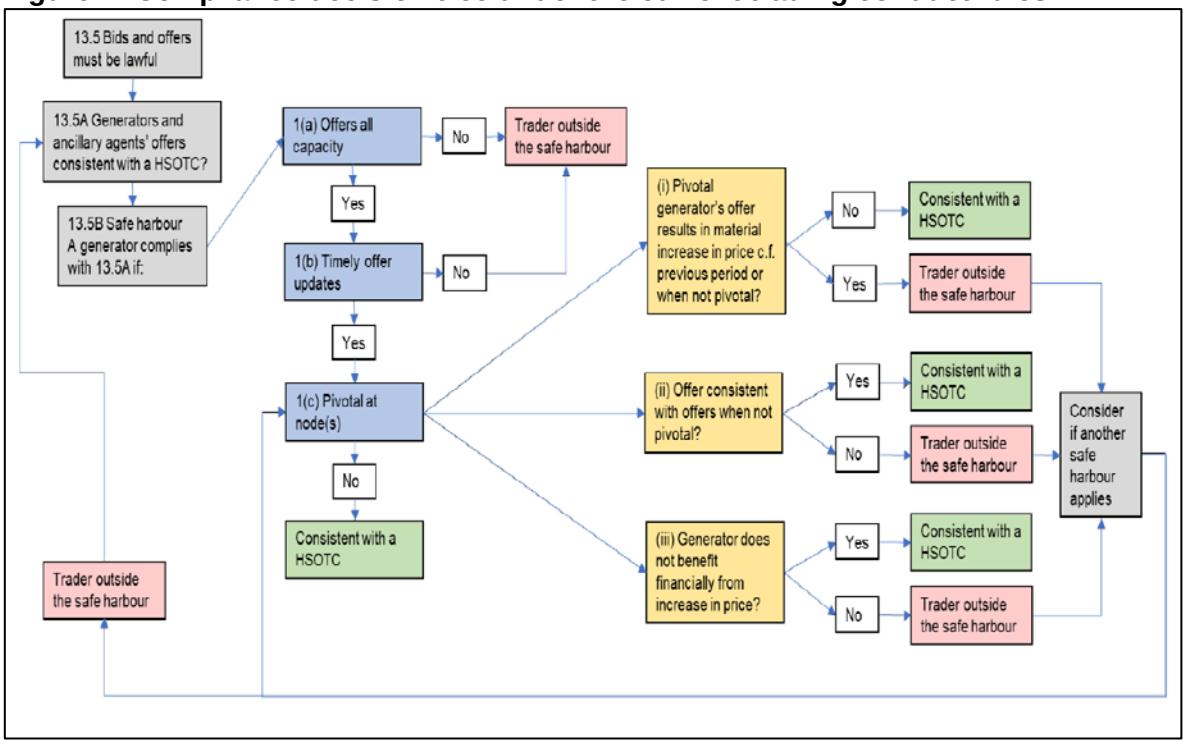
[10] As proposed by Yarrow and Decker in "Bidding In Energy-Only Wholesale Electricity Markets". p.21. [online] Available at: https://www.aemc.gov.au/sites/default/files/content/c196404a-e850-46bd-8ae2-41600f8454bb/Professor-George-Yarrow-and-Dr-Chris-Decker-%28RPI%29-Bidding-in-energy-only-wholesale-electricity-markets-Final-report.PDF.

(e) a standard of 'no significant market power' is consistent with 'workable competition', which the Authority uses to define "competition" in interpreting its statutory objective.[11] In particular it reflects that at times some participants in the electricity market have a degree of market power, as is the case under workable competition, but this only becomes problematic when it results in inefficient outcomes. The Authority notes the MDAG considered 'workable competition' as the legal standard, but this suffers from the problem that it is difficult to establish its meaning in law. Moreover, the price efficiency test under workable competition is that spot prices should tend towards long run marginal costs over time. This is not well suited to determine short term price efficiency, which is the focus of trading conduct cases.

(f) it is proportional to the apparent problem and relatively low cost. The proposal is designed to tackle abuse of market power in the spot market. The available evidence, discussed in the MDAG's discussion paper (see Part E), is that this particular problem is not so pervasive that a more intrusive, high cost intervention is required.

4.9 Following an initial implementation period, it is intended that market participants will find the proposed rule easier to apply within their decision-making processes. Under the current provisions, participants need to go through a relatively complex process to ensure their offering behaviour is compliant, as illustrated in Figure 2 below.

**Figure 2: Compliance decision tree under the current trading conduct rules**




4.10 This process is substantially simplified with the proposed rule because it only requires that the generator or ancillary service agents submits (or revises) offers that are consistent with offers that would have been made if no generator or ancillary service agent could exercise significant market power.

[11] Paragraph 2.2.1(a), *Interpretation of the Authority's statutory objective,* 14 February 2011.

4.11 The Authority expects participants would seek appropriate legal and economic advice to properly interpret this rule and establish the necessary operating procedures to apply it to their 'day-to-day' offering behaviour.

## Several alternative options have been evaluated

4.12 The HSOTC obligation was based on the New Zealand Electricity Market (NZEM) rules which applied until 2003. This obligation was not carried forward to its successor, the Electricity Governance Rules or the Code. The WAG[12] noted that, based on anecdotal advice by some individuals familiar with the NZEM period, this obligation had the effect of checking excessive offer behaviour by pivotal suppliers.

4.13 Prior to the HSOTC obligation, it was up to dynamic market forces to resolve any abuse of significant market power — in the form of innovation and new market entrants – with the undesirable trading situation (UTS) provisions as a backstop. However, in normal circumstances, a material period would pass before this is effective in curtailing market power, with substantial economic harm in the meantime.

4.14 The UTS regime was the only deterrent that prohibited problematic trading conduct because its scope covered *"any situation that threats or threaten, confidence in, or the integrity of, the wholesale marke*t". However, this sets a high bar for trading conduct (mis)behaviour and could only realistically apply when the abuse of market power had island-wide or nationwide adverse effects. This is unsuitable for localised pivotal situations or situations of a short duration that constitute the more common instances where parties abuse their significant market power.

4.15 Prior to the WAG review in 2012/13, the Authority was becoming concerned that pivotal conduct at a local level could inefficiently discourage retail competition and investment, particularly by consumers. It therefore requested the WAG to provide advice on measures *"to improve confidence in the efficiency of prices when competitive pressures in the wholesale market are weak"*.

4.16 In its assessment, the WAG viewed any regulatory action to mitigate pivotal power should be "precautionary in nature" given the uncertainty of potential benefits, and therefore it should be flexible, easily reversed and have a low risk of unintended consequences.

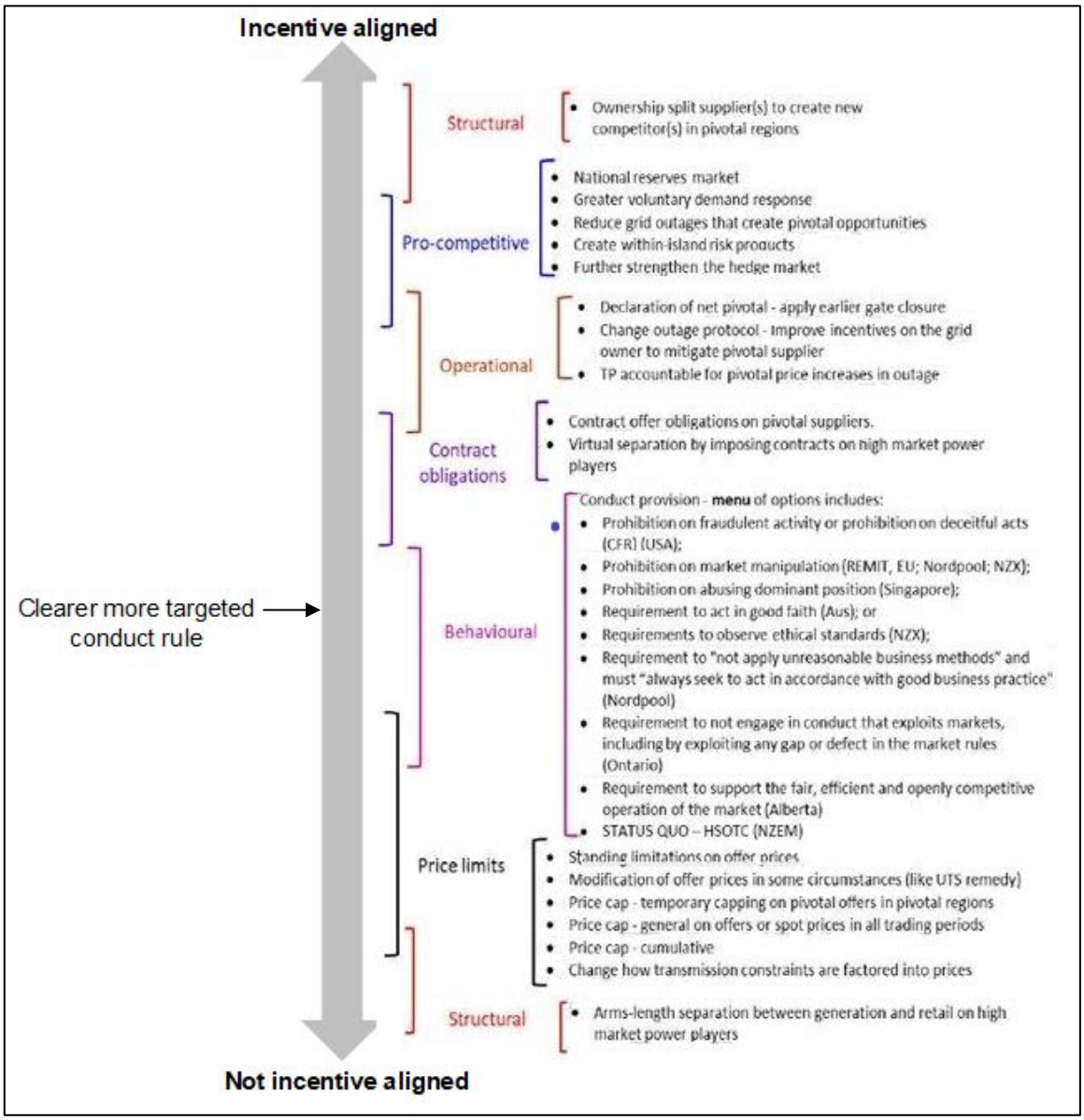
4.17 The WAG recommended that a trading conduct provision framed around *"a positive requirement to act in good faith or observe high standards of conduct"* should be pursued, adopting a similar approach for conduct provisions that were in the NZEM rules and in the Metering and Reconciliation Information Agreement (MARIA) rules. The NZEM rules required participants to *"observe high standards of trading conduct"*, while under the MARIA rules, participants were required to *"maintain high standards of integrity and fair trading"*.

4.18 In their discussion paper, the MDAG set out a 'spectrum of options' for addressing the potential exercise of market power in the wholesale electricity spot market. It assessed seven options ranging from relatively low impact operational options, such as early gate closure, to more intrusive options such as price limits or offer caps and structural measures. The MDAG also considered six variations of a trading conduct mechanism. This exercise sought from a first principles perspective to approximate how well these various options aligned with the economic incentives of market participants (See Part D of the MDAG's discussion paper for their assessment of these options).

[12] The WAG was an advisory group to the Authority that preceded the MDAG.

4.19 This spectrum of options is illustrated in Figure 3 and it builds upon previous work done by the WAG. It is only broadly indicative in terms of the extent to which each option is more or less incentive aligned.

**Figure 3: Spectrum of options for addressing market power in the electricity spot market**




4.20 The MDAG concluded that a trading conduct mechanism is the most suitable option because it was considered to be a relatively “precautionary”, “light handed” and “low-cost” measure when considering the uncertainty in the potential efficiency gains of any conduct rule in addressing market power.

4.21 However, as set out in the problem definition in section 2 above, the MDAG concluded that the current HSOTC provisions are problematic and they proposed an alternative to these provisions. The Authority has noted these findings and further considers that there is a conceivable risk that the Rulings Panel or the courts could give a legal meaning to the test of “high standard of trading conduct” that is different from what is intended by the Authority.

4.22 To address this possibility, one option would be to provide in the Code an ex ante meaning to 'high standard of trading conduct' rather than relying on the Rulings Panel or the court to provide an interpretation via case law. However, this exercise cannot be meaningfully undertaken without first linking it to some underlying framework (eg, economic efficiency) or desired objectives (such as the Authority's statutory objectives).

4.23 The MDAG rightly concluded it would be better to reframe the trading conduct provisions by underpinning them directly with an economic efficiency framework[13] and to self-contain the meaning of the proposed rule within its clauses. It is expected this approach will make it easier for market participants to understand the proposed rule and apply it to their offering behaviour. It also facilitates monitoring and compliance of the proposed rule by the Authority.

4.24 Amending or removing the safe harbour provisions is another way of mitigating some of the issues with the current HSOTC provisions. However, it would be difficult to rephrase or amend these provisions in a way that would deter market participants from misusing them to shelter inefficient behaviour. It would also not resolve the main problem, as pointed out by the MDAG and noted by the Authority, around the lack of clarity in the meaning of "high standard of trading conduct".

4.25 The WAG recommended that [any] trading conduct rule be coupled with principles set out in the Code or in guidelines to provide guidance on behaviour by pivotal players that is consistent with a 'high standard' of trading conduct. The MDAG evaluated this option but concluded that such a 'black and white' manual specifying examples of when offering behaviour may be in breach of the proposed rule is not practical. The MDAG noted that the most important point is for market participants to understand and apply the economic efficiency framework (by seeking legal and economic advice) and to incorporate it to reflect their particular situation and mix of activities. The Authority agrees with this assessment (see paragraphs 4.30 to 4.37).

**Q2. Do you agree the proposed trading conduct rule is preferable to the other options? If you disagree, please explain your preferred option in terms consistent with the Authority's statutory objective in section 15 of the Electricity Industry Act 2010**

**Q3. Do you agree that the Authority has appropriately considered viable alternatives to the proposed rule? Please provide the reasons for your answer.**

## The Authority has noted submitters' feedback to the MDAG consultation

4.26 The MDAG undertook an extensive consultation process with market participants active in the wholesale electricity spot market as a key part of their review of the trading conduct provisions, as detailed in section 3 above[14].

4.27 The feedback received on the proposed rule was overall positive. In general, submitters on the MDAG's supplementary consultation paper (October 2020) considered that the proposed rule is better than the current provisions. Some submitters raised several

[13] Where the central question is whether the offers under review would have occurred if the market in the relevant trading periods had been competitive.
[14] Consultation with stakeholders was sought on a discussion paper in February 2020, a supplementary consultation paper in October 2020, when developing case studies for the evaluation panels in July 2020 and to feedback on the findings of these panels in September-October 2020.

questions or expressed some concerns about the proposal but, in general, considered it an improvement on the status quo.

4.28 The MDAG has responded in detail to submitters' issues and concerns in their recommendations paper. Overall, the Authority is aligned with the MDAG's responses to submitters' feedback. The Authority notes in particular the MDAG's comment that several concerns arose from "*[participants'] uncertainty in gauging if and when competition has reached a level of weakness that it causes outcomes adverse to the market as a whole and how it impacts on economic efficiency"*.

4.29 Submitters' issues and concerns are set out in Appendix F and include the MDAG's responses and the Authority's views in relation to the feedback received by submitters.

**Q4. Do you have any comments on the Authority's view on submitters' issues and concerns? Please provide the reasons for your answer.**

## A substantial body of work has been developed that provides guidance to market participants

4.30 In the MDAG's supplementary consultation (October 2020), some submitters[15] called for the Authority to develop guidelines to provide *"more clarity on day to day rules for those actively trading in the market in real time"* and to list examples of offering behaviour that is in breach of the proposed rule. In short, submitters have requested that the Authority provides them with a high level of certainty for wholesale traders in their day-to-day trading activities.

4.31 The MDAG noted in their recommendations that such a "black and white" manual is impossible to compile given *"the almost infinite number of cases and permutations without necessarily answering the next fact situation that a trader may be dealing with".*

4.32 The MDAG further noted that the desire for such guidelines seems to arise from a preference to have a clear boundary of when competition becomes insufficient. However, MDAG considered and the Authority agrees that identifying this boundary is *"inescapably a matter of judgement, not a mechanical formula"* and that *"[market participants] can reasonably be expected to develop internal protocols guided by their advisers on how they intend to approach and apply the proposed provisions as a matter of internal corporate policy".*

4.33 For these reasons, the Authority ***does not*** intend to provide specific examples or hypothetical scenarios outlining how the proposed rule should be applied by market participants in their day-to-day trading activities.

4.34 Over the course of the review of the trading conduct provisions, the MDAG developed a substantial body of work that explains the policy aim and the rationale for proposing the rule. This body of work includes a discussion paper, a supplementary consultation document, a recommendations paper and the findings of the evaluation panels. Taken together, these documents provide guidance to market participants on the intended meaning and interpretation of the proposed rule.

4.35 The Authority intends to make any decisions by the Rulings Panel or the courts readily accessible on the Authority's website to assist market participants' understanding of the proposed rule.

[15] Including Genesis, Mercury, Trustpower and the Independent Retailers.

4.36 The Authority will consider providing access to anonymised information on other compliance actions that is currently not made publicly available, where appropriate. This could include early assessments of breach allegations, the findings of cases that have been considered but not progressed and the content of 'please explain' notifications.

4.37 The Authority encourages market participants to familiarise themselves with the contents of the documents the MDAG prepared in its review of the trading conduct provisions.

**Q5. Do you agree with the Authority's decision for not providing specific examples or hypothetical scenarios in guidelines on how the proposed rule should be applied? Please provide the reasons for your answer.**

**Q6. Should the Authority provide access to anonymised information on the findings of cases that have been considered but not progressed and the content of 'please explain' notifications, where appropriate? Please provide the reasons for your answer.**

## The proposed trading conduct rule promotes the Authority's statutory objectives for the long-term benefit of consumers

4.38 The proposed rule is expected to be more effective at addressing the abuse of market power when competition is weak in the wholesale electricity market compared to the current HSOTC provisions. In practice, this is expected to result in fewer instances where energy or reserve prices are set at an inefficient level, and therefore efficiency gains are obtained from:

(a) purchasers avoiding diverting resources into managing risks of inefficiently high prices;

(b) a reduction in price distortions associated with weak competition situations and so a reduction in 'dead-weight losses';

(c) innovation and efficient investment over time from greater confidence in competition and lessening the perception of wholesale market price risk.

4.39 Breaches of trading conduct rules, even for short durations, could have large adverse efficiency impacts and could arise at both local pivotal supplier situations and wider pivotal supplier situations. For a single local pivotal supplier situation, the efficiency costs could reach millions of dollars in present value terms while these costs would realistically be substantially higher for island-wide or nationwide pivotal supplier situations.

4.40 The Authority's analysis (see the CBA in Appendix D) uses a mainly qualitative approach to assess the direction of change in costs and benefits of the proposed rule relative to the status quo. It sets out the rationale for this assessment and supports it through a quantitative estimate of the potential gross benefits from the proposed rule through avoiding inefficient investments by parties seeking to avoid high prices by a local pivotal supplier with generation of 50MW capacity.

4.41 In particular, the CBA explains that rational purchasers will take steps to avoid purchasing electricity at a high price when the pivotal supplier raises prices during periods when it is pivotal, such as by purchasing a battery. This is because the avoided cost of electricity bought at a high price would far outweigh the cost of the battery. In the scenario examined in the CBA, this inefficient investment would result in a cost (to society) of $0.8m per year or a net loss of $8m in present value terms. This result is similar to the findings of the

MDAG's initial CBA in their discussion paper which had estimated a potential benefit of $7.64 million in present value terms for a similar scenario.

4.42 The CBA further shows t that ineffective trading conduct provisions could encourage over-investment in supply capacity, and that an over-investment of just 0.5% in unnecessary capacity would result in an efficiency cost of $40m to $60m in present value terms.

4.43 The conclusions of the CBA are that:

(a) the proposed trading conduct rule is expected to produce greater gross economic benefits than the current rule.

(b) the proposed trading conduct rule is expected to reduce unintended costs and reduce (or at worse have no net effect) on compliance and enforcement costs.

(c) because total costs are expected to be lower and gross benefits higher under the proposed trading conduct rule, then net benefits will increase under the proposed rule.

**Q7. Do you agree that the proposal is a material improvement on the status quo? Please provide the reasons for your answer.**

# 5 The Authority will strengthen its monitoring, enforcement and compliance functions

5.1 The MDAG recommended that, in the first instance, the Authority should *"put in place a more active monitoring regime of market performance, complemented by frequent 'please explain' notifications"* and to *"closely monitor participants' behaviour particularly when competition is weak".*

## The Authority will strengthen its monitoring functions first

5.2 Should the proposed rule be introduced, the Authority proposes to focus on upgrading its monitoring capabilities to enable it to carry out the level of scrutiny required under the proposed rule.

5.3 New data analysis tools are expected to be developed to sift through the thousands of pre-dispatch offers made in each trading period by all generation stations (or generators) and to flag questionable offering behaviour in a timely manner.

5.4 In a typical week there are about 30,000 final offers and four or five times the number of offers and offer changes made at the pre-dispatch level. The investigative work to determine whether a breach has occurred will therefore be forensic and resource intensive.

5.5 The Authority aims to publish the principles and methodology it proposes to use to monitor compliance and how it determines whether questionable offering behaviour could constitute an alleged breach that merits further investigation.

## The Authority will strengthen its compliance and enforcement functions

5.6 A key requirement to the effectiveness of *any* trading conduct rule is the achievement of deterrence. Effective deterrence is achieved through the credible threat of enforcement of the proposed rule. That credibility is principally derived from the actual prosecution of breaches and the subsequent application of sanctions against those found to be in breach.

5.7 The Authority is aware that closer scrutiny will be required during the initial period when (and if) the proposed rule enters into force. This high level of scrutiny is resource-intensive and additional resources would be required. This situation could persist until market participants have fully implemented the proposed rule and it is firmed up through Authority-led reviews, investigations and case law.

5.8 Concurrently, the Authority will continue to engage with MBIE to review the current penalty regime for breaches of the Code provisions as part of the wider programme to review the Act. Section 54 of the Act stipulates a maximum penalty for Code breaches of not more than $200,000 per breach. The Authority considers that the current penalties in the Act may not be an effective deterrent and do not reflect the potential gains from abuses of significant market power or the cost imposed on other market participants and consumers.

5.9 In some jurisdictions outside New Zealand such as in the United Kingdom, Australia or the European Union (EU), the penalties for breaches of analogous market rules are much larger. For example, Ofgem issued a fine of £37.2 million ($72.5 million)[16] to InterGen in March 2020 after it sent misleading signals to the National Grid Electricity System

[16] The fine initially amounted to £47.8 million ($93.2 million) but was reduced after settlement discount on the penalty levied.

Operator about the energy it could supply in the winter of 2016 and which resulted in InterGen making substantial profits.

5.10 Another example are the proposed reforms of the Statutes Amendment (National Energy Laws) (Penalties and Enforcement) Bill 2020 in South Australia, which would introduce a three-tiered penalty regime. Tier 1 covers the more severe breaches and carries a maximum penalty of $500,000 for natural persons, and for bodies corporate, an amount not exceeding the greater of $10 million or 10% of the body corporate's annual turnover. Tier 2 carries a maximum penalty of $287,000 (and $14,400 for every day the breach continues) for natural persons, and $1.45 million (and $71,800 for every day the breach continues) for bodies corporate. Tier 3 covers all remaining civil penalty provisions and carries a maximum penalty of $33,900 (and $3,390 for every day the breach continues) for natural persons and $170,000 (and $17,000 for every day the breach continues) for bodies corporate.

5.11 The EU Regulation on Wholesale Energy Market Integrity and Transparency (REMIT) specifically states that: *"penalties [laid out by Member States] must be effective, dissuasive and proportionate, reflecting the nature, duration and seriousness of the infringement, the damage caused to consumers and the potential gains from trading on the basis of inside information and market manipulation".*[17] [18]

[17] Article 18 of the Regulation (EU) No 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency.

[18] The level of penalties issued by EU national regulatory authorities (NRA) for breaches of this Regulation in 2020, which amounted to €42.5 million ($75.7 million). From 2015 to 2020, EU NRAs have issued a total of €76.5 million ($136.2 million) in fines for breaches of the REMIT.

# 6 Regulatory statement for the proposed amendment

## Objectives of the proposed amendment

6.1 The proposed trading conduct rule seeks to address deficiencies in the current provisions, as detailed in section 2. The objective of the proposed rule is to improve the efficiency of wholesale electricity spot prices in situations where competition is weak. This will help to promote the three limbs of the Authority's statutory objective—competition, reliability, and efficiency—for the long-term benefit of consumers.

**Q8. Do you agree with the objectives of the proposed amendment? Please provide the reasons for your answer.**

## The proposed amendment

6.2 The Authority is proposing to amend the Code by replacing clauses 13.5A and 13.5B and the definition of "pivotal" with the proposed trading conduct rule set out in section 4.

## The proposed amendment will benefit consumers

6.3 As noted in paragraphs 4.38 to 4.43, the proposed rule is expected to promote the Authority's statutory objectives for the long-term benefits of consumers.

6.4 In particular, the CBA concludes that:

(a) the proposed trading conduct rule is expected to produce greater gross economic benefits than the current rule.

(b) the proposed trading conduct rule is expected to reduce unintended costs and reduce (or at worse have no net effect) on compliance and enforcement costs.

(c) because total costs are expected to be lower and gross benefits higher under the proposed trading conduct rule, then net benefits will increase under the proposed rule.

6.5 The potential efficiency gains from the proposed Code amendment are also highlighted by the following analysis in the CBA:

(a) an over-investment by load customers of just 0.5% in unnecessary capacity to avoid high prices resulting from exercise of market power would result in an efficiency cost of $40m to $60m in present value terms.

(b) inefficient investment to avoid high prices resulting from offers by a 50MW local pivotal supplier would result in a cost (to society) of $0.8m per year or a net loss of $8m in present value terms. This is similar to the $7.64 million in present value terms in avoided losses estimated in MDAG's initial CBA in their discussion paper.

6.6 The Authority considers that the CBA is robust, and its findings clearly show that the proposed trading conduct rule would result in net benefits when compared to maintaining the status quo.

**Q9. Do you agree that the relative assessment approach used in the CBA is sufficient to determine whether the proposal has net benefits relative to the status quo? Please provide the reasons for your answer.**

**Q10. Do you agree the proposed amendment will result in net benefits? Please provide the reasons for you answer.**

## The Authority has identified several other means for addressing the objectives

6.7 The Authority has noted the MDAG's assessment of alternative options (including the six variants to the current trading conduct mechanism) as described in section 4 above and as set out in detail in Part D of the MDAG's discussion paper (February 2020).

6.8 The Authority considers that the proposed rule is a relatively cautious and non-prescriptive approach that is nonetheless intended to be effective at addressing the abuse of significant market power when competition is weak in the wholesale electricity market.

6.9 The Authority considers that pursuing non-behavioural options now, such as setting price limits or offer caps, or structural measures, would be unduly prescriptive and more administratively complex and costly to implement when compared to the apparent problem they seek to resolve.

## The proposed amendment is preferred to other options

6.10 As shown in paragraphs 4.12 to 4.25 above, the Authority has evaluated other means for addressing the objectives and prefers the proposed rule because it better aligns with the Authority's statutory objectives and the intent of the legal provisions in the Code. It is grounded in a well-established economic efficiency framework that makes it more effective at addressing the abuse of market power when competition is weak in the wholesale electricity market.

## The proposed amendment complies with section 32(1) of the Act

6.11 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.

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

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

| | |
|---|---|
| (a) competition in the electricity industry; | The proposal is expected to promote competition and improve confidence in the wholesale electricity spot market by addressing the abuse of market power when competition is weak. |
| (b) the reliable supply of electricity to consumers; | The proposal is expected to improve reliable supply to consumers because it would curtail the ability of some (pivotal) suppliers from withdrawing supply volumes to raise offer prices. |

| | |
|---|---|
| | Supply reliability would be enhanced because the proposal permits participants to raise offers to signal genuine scarcity. This would, in turn, attract new supply sources or the deployment of innovative generation or demand management sources. |
| (c) the efficient operation of the electricity industry; | The central objective of the proposal is to improve price efficiency in the wholesale electricity spot market.<br>The proposal is expected to reduce the frequency when prices are set at an inefficient level due to the abuse of market power when competition is weak.<br>More efficient price signals would support productive, allocative and dynamic efficiency in the electricity industry, which would contribute to the long-term benefits to consumers. |
| (d) the performance by the Authority of its functions; | The proposal is an amendment of the current provisions and will not affect the Authority's functions in a substantive way. The MDAG has recommended, and the Authority agreed, to allocate additional resources to strengthen its monitoring and compliance functions. |
| (e) any other matter specifically referred to in this Act as a matter for inclusion in the Code. | The proposed amendment is not expected to affect any other matter specifically referred to in the Act for inclusion in the Code. |

**Q11. Do you agree the Authority's proposed amendment complies with section 32(1) of the Act?**

## The Authority has given regard to the Code amendment principles

6.13 When considering amendments to the Code, the Authority is required by its Consultation Charter[19] to have regard to the following Code amendment principles, to the extent that the Authority considers they are applicable. Table 2 describes the Authority's regard for the Code amendment principles in the preparation of the proposal.

[19] The consultation charter is one of the Authority's foundation document and is [online] available at: http://www.ea.govt.nz/about-us/documents-publications/foundation-documents/

**Table 2: Regard for Code amendment principles**

| Principle | Comment |
|---|---|
| 1. Lawful | The proposal is lawful, and is consistent with the statutory objective (see section 4) and with the empowering provisions of the Act. |
| 2. Provides clearly identified efficiency gains or addresses market or regulatory failure | The proposed Code amendment is expected to improve price efficiency in the wholesale market that would have material efficiency gains, as further detailed in the evaluation of the costs and benefits (see Appendix D). |
| 3. Net benefits are quantified | The extent to which the Authority has been able to estimate the efficiency gains is set out in the evaluation of the costs and benefits (see Appendix D). |
| 4. Preference for small-scale 'trial and error' options | The proposal involves introducing an improvement on the current trading conduct provisions. This proposal is a "precautionary", "light handed" and "low-cost" measure. It also does not preclude the Authority from introducing other mechanisms in the future. |
| 5. Preference for greater competition | The proposal promotes competition. As shown in Table 1, point (a). |
| 6. Preference for market solutions | The proposal does not restrict the proper functioning of the electricity market and allows price signals that reflect demand and supply conditions. |
| 7. Preference for flexibility to allow innovation | The proposal allows flexibility and does not restrict participants from innovating. |
| 8. Preference for non-prescriptive options | The proposal is not prescriptive. |
| 9. Risk reporting | The proposal promotes efficient offering behaviour and would be supported through more comprehensive monitoring and compliance action by the Authority. |

# Appendix A Format of submissions

| Submitter | |
|---|---|

| Question | | Comment |
|---|---|---|
| Q1. | Do you agree with the issues identified with the current trading conduct provisions (clauses 13.5A and 13.5B) in the Code? Please provide the reasons for your answer. | |
| Q2. | Do you agree the proposed trading conduct rule is preferable to the other options? If you disagree, please explain your preferred option in terms consistent with the Authority's statutory objective in section 15 of the Electricity Industry Act 2010 | |
| Q3. | Do you agree that the Authority has appropriately considered viable alternatives to the proposed rule? Please provide the reasons for your answer. | |
| Q4. | Do you have any comments on the Authority's view on submitters' issues and concerns? Please provide the reasons for your answer. | |
| Q5. | Do you agree with the Authority's decision for not providing specific examples or hypothetical scenarios in guidelines on how the proposed rule should be applied? Please provide the reasons for your answer. | |
| Q6. | Should the Authority provide access to anonymised information on the findings of cases that have been considered but not progressed and the content of 'please explain' notifications, where appropriate? Please provide the reasons for your answer. | |
| Q7. | Do you agree that the proposal is a material improvement on the status quo? Please provide the reasons for your answer. | |
| Q8. | Do you agree with the objectives of the proposed amendment? Please provide the reasons for your answer. | |
| Q9. | Do you agree that the relative assessment approach used in the CBA is sufficient to determine whether the proposal has net benefits relative to the status quo? Please provide the reasons for your answer. | |
| Q10. | Do you agree the proposed amendment will result in net benefits? Please provide the reasons for you answer. | |
| Q11. | Do you agree the Authority's proposed amendment complies with section 32(1) of the Act? | |

# Appendix B The current high standard of trading conduct provisions in the Code

**13.5A Conduct in relation to generators' offers and ancillary service agents' reserve offers**

(1) Each **generator** and **ancillary service agent** must ensure that its conduct in relation to **offers** and **reserve offers** is consistent with a high standard of trading conduct.

(2) Subclause (1) applies when—

(a) a **generator** submits or revises an **offer**; or

(b) an **ancillary service agent** submits or revises a **reserve offer**.

**13.5B Safe harbours for clause 13.5A**

(1) A **generator** complies with clause 13.5A if—

(a) the **generator** makes **offers** in respect of all of its generating capacity that is able to operate in a **trading period**; and

(b) when the **generator** decides to submit or revise an **offer**, it does so as soon as it can; and

(c) in the case of a **generator** that is **pivotal**,—

(i) prices and quantities in the **generator's offers** do not result in a material increase in the **final price** at which **electricity** is supplied in a **trading period** at any **node** at which the **generator** is **pivotal**, compared with the **final price** at the **node** in an immediately preceding **trading period** or other comparable trading period in which the **generator** is not **pivotal** at that **node**; or

(ii) the **generator's offers** are generally consistent with **offers** it has made when it has not been **pivotal**; or

(iii) the **generator** does not benefit financially from an increase in the **final price** at which **electricity** is supplied in a **trading period** at a **node** at which the **generator** is **pivotal**.

(2) A **generator** does not breach clause 13.5A only because the **generator** does not comply with subclause (1).

(3) An **ancillary service agent** complies with clause 13.5A if—

(a) the **ancillary service agent** makes **reserve offers** in respect of all of its capacity to provide **instantaneous reserve** that is able to operate in a **trading period**; and

(b) when the **ancillary service agent** decides to submit or revise a **reserve offer**, it does so as soon as it can; and

(c) in the case of an **ancillary service agent** that is **pivotal**,—

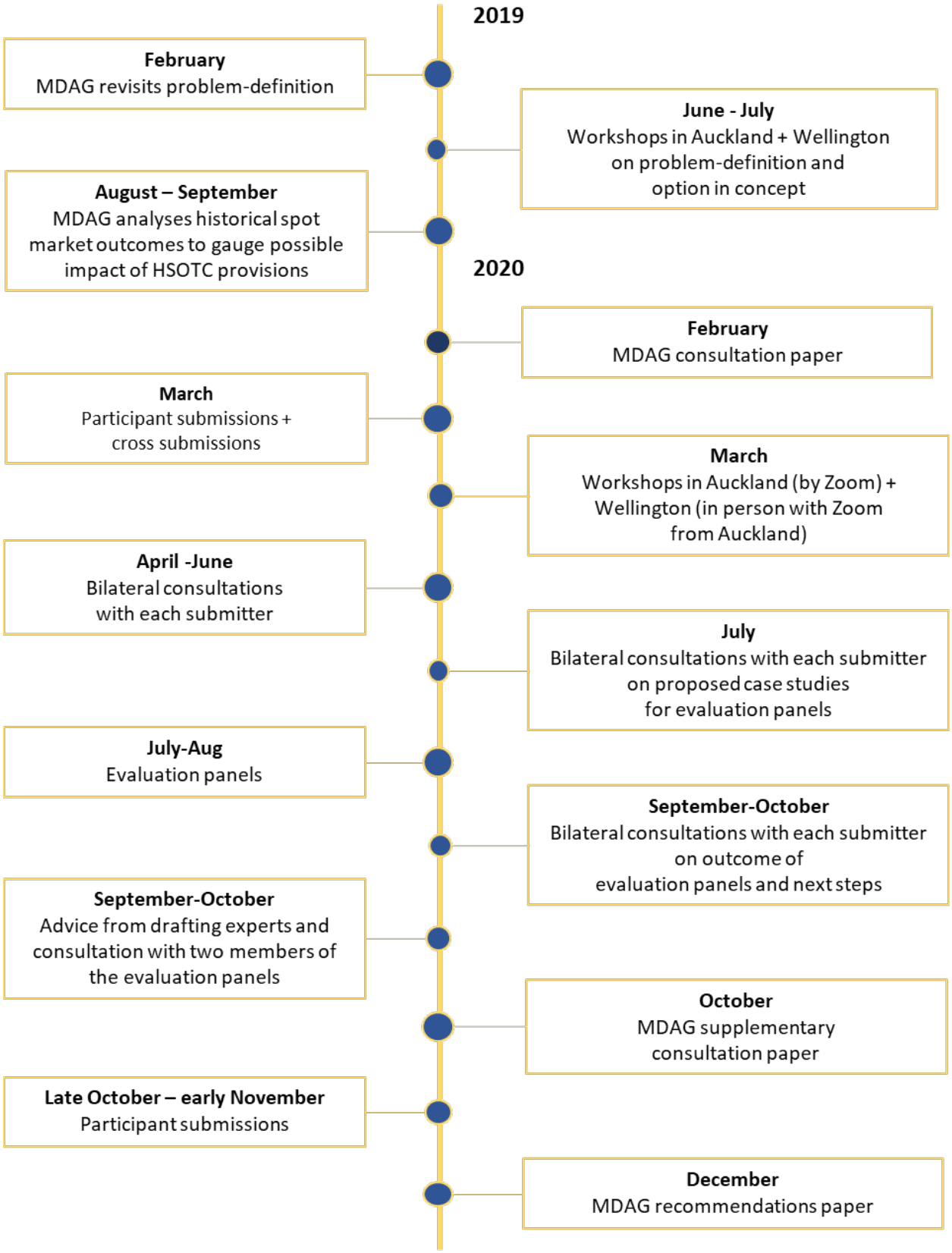
(i) prices and quantities in the **ancillary service agent's reserve offers** do not result in a material increase in the **final reserve price** in a **trading period** in an **island** in which the **ancillary service agent** is **pivotal**, compared with the **final reserve price** in the **island** in an immediately preceding **trading period** or other comparable **trading period** in which the **ancillary service agent** is not **pivotal**; or

(ii) the **ancillary service agent's reserve offers** are generally consistent with **reserve offers** it has made when it has not been **pivotal**; or

(iii) the **ancillary service agent** does not benefit financially from an increase in the **final reserve price** in a **trading period** in an **island** in which the **ancillary service agent** is **pivotal**.

(4) An **ancillary service agent** does not breach clause 13.5A only because the **ancillary service agent** does not comply with subclause (3).

# Appendix C Timeline of the MDAG review process



# Appendix D Cost-Benefit Analysis

D.1 This section sets out the Authority's assessment of the benefits and costs of the proposed trading conduct rule.

## Assessment approach

D.2 The Authority generally prefers to use quantitative analysis to evaluate the benefits and costs of a proposed rule. However, a full quantitative analysis is not practical in this case. The key reason is that predicting the absolute benefits[20] from any trading conduct mechanism is very difficult because they can be heavily influenced by behavioural factors which are distinct from the Code itself. For example, participant conduct may be affected by ownership structures and internal remuneration arrangements, both of which are distinct from the Code. Having said that, the Authority considers it is feasible to assess in relative terms how alternative Code provisions will affect prospective benefits and costs.

D.3 A relative assessment approach has therefore been used and it focusses on the four key variables which may change if the proposed rule is adopted:

(a) Gross benefits – how effective are the two alternatives at deterring supplier conduct which leads to efficiency losses.

(b) Compliance costs – how do the alternatives compare in relation to costs they impose on participants.

(c) Enforcement costs – how do the alternatives compare in relation to the costs to monitor and enforce the Code.

(d) Unintended efficiency costs – what scope is there under the alternatives for adverse effects to arise.

D.4 This information is used to form a judgment about the likely overall impact – i.e. whether the proposed change is likely to yield net benefits.

D.5 This assessment is forward looking and assumes the current HSOTC provisions will remain in place if no amendment proceeds. Consistent with previous practice, the assessment focusses on benefits and costs which accrue to society as a whole. The Authority does not consider the effect of value transfers between (or among) consumers and suppliers, except where these have net impacts on society as a whole.

## Potential effects on gross benefits

D.6 To assess whether the proposed rule will yield gross benefits relative to the status quo, the following questions have been considered:

(a) What is the problem that trading conduct provisions are intended to address?

(b) How much scope is there for the problem to arise?

(c) How large are the economic efficiency benefits from addressing the problem?

(d) Will the current provisions or proposed rule be better at deterring problematic conduct?

[20] Benefits will take the form of avoided economic inefficiencies caused by problematic trading conduct. Specific types of inefficiency are described later in the 'Benefits' section.

## What is the problem that trading conduct provisions are intended to address?

D.7 Competition in the electricity spot market is intended to act as a discipline on generators and ancillary service agents. However, as noted section 2 there can be locations or periods where suppliers (individually or collectively) have the ability to push market prices significantly above efficient levels by raising their offer prices or restricting offered capacity. Such conduct can cause efficiency losses as parties take steps to protect themselves against the potential for inefficiently high prices.

## How much scope is there for the problem to arise?

D.8 A measure that helps to assess the scope of the problem is the proportion of time that individual suppliers have the ability to unilaterally raise spot prices. This potential exists if market demand cannot be met without at least some of a given supplier's production being available. Such suppliers are referred to as being 'gross pivotal'.[21]

D.9 Of course, even if a supplier can unilaterally raise prices it may not seek to do so. Within a given trading period, a gross pivotal supplier will only financially benefit from higher spot prices if its output is more than its contracted sales. This is known as being 'net pivotal'. Having said that, a supplier that is not net pivotal may still have an incentive to raise spot prices in a given trading period to increase returns from future hedge and/or retail contract sales.

D.10 Turning to the New Zealand evidence, analysis shows that instances of gross pivotal suppliers occur from time to time at the local level, especially when transmission outages limit the scope to bring in supply from outside areas. In these events it can be impossible to meet local demand without the local supplier which becomes pivotal. Examples of recurring local pivotal supply situations include[22]:

(a) Arapuni 1 for ~80MW of load, where Mercury is often gross pivotal but significant price separation has been rare.

(b) Arapuni 2 for ~120MW of load, where Mercury was gross pivotal for over 2,000 trading periods in 2019. Prices reached $5000/MWh in one trading period in 2020 and were over $150/MWh for 10 other periods.

(c) Mangahao for ~149MW of load, where King Country Energy has been gross pivotal for about an hour each year.

(d) Waikaremoana 1 for ~156MW of load, where Genesis is often gross pivotal. Price separation with prices over $200/MWh appears to be becoming more frequent and was observed in 8 trading periods in 2019 and 18 in 2020.

(e) Waikaremoana 2 for ~46MW of load at Fernhill and ~22 MW at Tuai. High prices at Tuai and low prices at Redclyffe have occurred for about 4 hours a year, although they were more common in 2019 and 2020.

(f) Tekapo A for ~4 MW of load, where Genesis has been gross pivotal for about 200 hours per year. Prices reached $995/MWh in 2018 and were over $500/MWh on 6 other occasions. No elevated prices were observed in 2020.

(g) Waipori for ~81 MW of load, where Trustpower has been gross pivotal for fewer than 10 hours a year on average but it can be higher depending on transmission outages. Prices during a prolonged 2018 event were consistently around $150/MWh.

[21] This measures the position for individual suppliers. The same test can be applied for two or more suppliers if it is thought that they might act in a coordinated way.

[22] See Appendix E for more information.

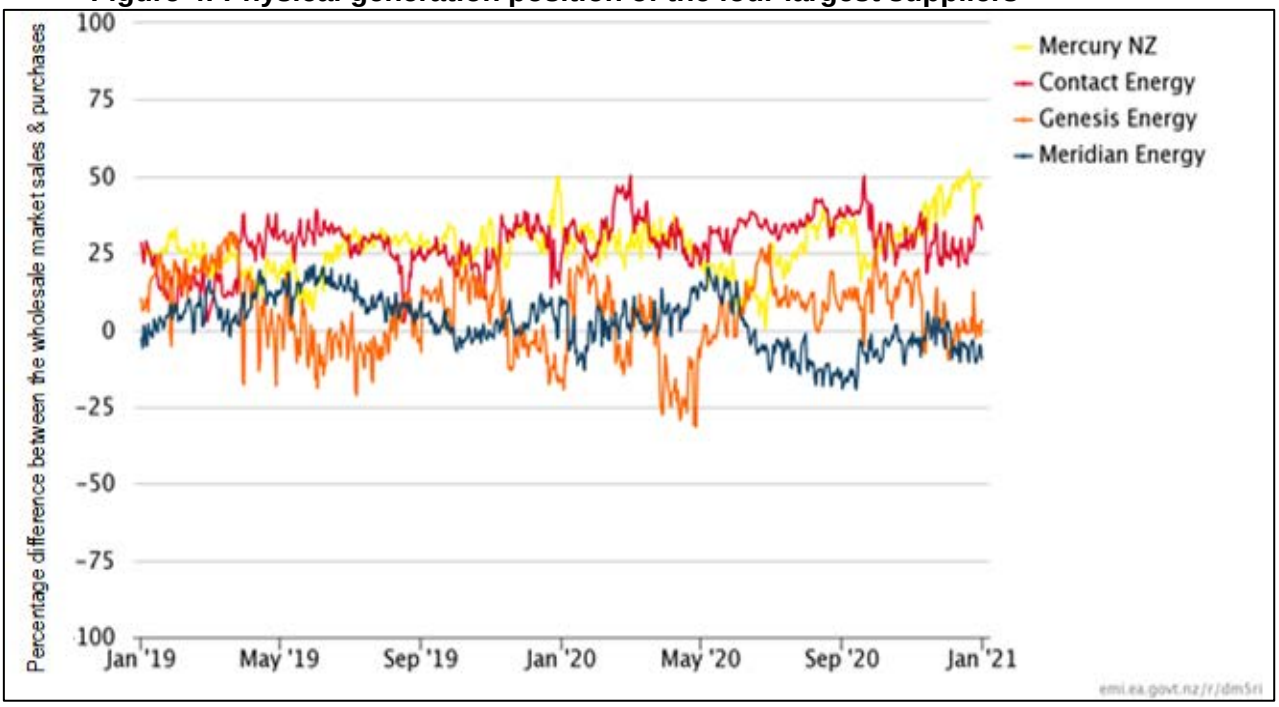
D.11 There is potential for these local pivotal supplier situations to repeat in the future and for new local pivotal supplier situations to arise.

D.12 Pivotal supplier situations can also affect much larger areas, including one or both islands, or potentially even the entire country. In 2020 one or more generators was estimated to be gross pivotal in the North Island for 38% of trading periods, and over the South Island for 97% of trading periods. The equivalent measure for the entire country was 23% of trading periods.

D.13 The estimated frequency of net pivotal events across these areas of the market was much lower than for gross pivotal events. For example, the Authority estimates that a supplier was net pivotal in the North Island for 0.28% of trading periods in 2020 and in the South Island for 0.03% of trading periods. The Authority did not identify any trading periods where a supplier was net pivotal over the entire country in 2020. While the percentages for the South and North Islands are small, they equated to around 5 to 50 trading periods respectively in 2020 and had the potential to affect large volumes of demand. In addition, as noted earlier, suppliers may seek to raise prices even if they are not net pivotal in a given trading period.

D.14 The difference between the frequency of gross and net pivotal supplier situations is because market participants tend to match their generation with retail and hedge contract obligations. Figure 4 illustrates the pattern of the relationship between the large suppliers' wholesale market sales (generation) and purchases. A firm's net exposure to the spot price is also affected by the financial derivative contracts (futures, CFDs, FTRs etc) they hold and therefore Figure 4 below does not show the full net position of each participant. The graph suggests that Meridian and also Genesis tend to be reasonably balanced in terms of their generation versus their retail and hedge contract obligations while Contact and Mercury tend to have a generation position that exceeds their retail and hedge contract obligations.

**Figure 4: Physical generation position of the four largest suppliers**




## How large are the potential efficiency benefits from addressing the problem?

D.15 If suppliers have the ability to raise spot prices above efficient levels with little or no short-term competitive restraint, purchasers may seek options to mitigate this risk. Such options could lead to efficiency losses. In particular, there could be inefficient investment in and operation of alternative supply capacity. This would be a productive efficiency loss because resources

would be diverted into creating more supply when it was not really needed. It would also be a dynamic efficiency loss because investment is distorted.

D.16 Actual or threatened instances of inefficiently high prices may also hurt retail competition. This because retailers faced with such risks may withdraw from, or avoid, operating in affected regions. Any thinning of retail competition can weaken the pressure on retailers to minimise operating costs, and that could lead to a productive efficiency loss.

D.17 Inefficiently high prices can also trigger unnecessary demand reductions by consumers, and this would cause an allocative efficiency loss. Finally, the prospect of suppliers being able to exercise short-term market power with little or no restraint may chill electricity consumers' incentives to invest in equipment that uses electricity, such as electric boilers for food processing factories. It may also weaken the incentives for parties to pursue future innovations. These would create dynamic efficiency losses.

D.18 Clearly, the scale of any efficiency impacts will depend on the conduct of suppliers. As noted earlier, it is very difficult to predict future conduct in absolute terms because of the behavioural uncertainties involved.

D.19 However, even relatively infrequent and localised instances of pivotal supplier situations could trigger meaningful efficiency impacts. This is shown by considering an illustrative example involving:

(a) A region with 50 MW of load that is periodically exposed to the actions of a pivotal supplier.

(b) A pivotal supplier that has regularly offered in a way that increases spot prices to $5,000/MWh for ten hours a year in the affected region compared to $80/MWh in adjacent region (resulting in an annual average uplift of $6/MWh relative to those regions).

(c) Purchasers in the region that have the opportunity to install a 10 MW storage battery (covering 50% of demand) which would render the supplier no longer pivotal. The battery would have costs of $82/kW/yr.

D.20 In this example, it would be rational for purchasers to install the battery and avoid purchasing electricity at a high price when the pivotal supplier raises prices during periods when it is pivotal and if they think the pivotal supplier's past conduct will continue into the future. This is because the avoided cost of electricity bought at a high price would far outweigh the cost of the battery as shown in Table 3.

D.21 However, for society as a whole the battery does not provide any additional economic benefit because there is already sufficient supply to meet demand. Instead, it simply results in a cost of $0.8m per year with no offsetting benefits, i.e. a net loss of $8m in present value terms.

D.22 In principle, this should represent an upper limit on the direct efficiency loss. This is because the pivotal supplier might rationally moderate its offers to a level that is just below that needed to trigger battery investment by purchasers. However, this presumes all parties have perfect knowledge of each other's position and intentions, which is clearly unrealistic. It is also possible that other economic costs will arise, for example the operational costs of the battery may be higher than the pivotal supplier's displaced generation.

**Table 3: Benefits and costs for illustrative local pivotal supplier situation**

| | Unit | Private benefits and costs for purchasers | | Economic benefits and costs for NZ as a whole |
|---|---|---|---|---|
| | | | | |
| **Benefits** | | | | |
| Purchase cost per MWh if pivotal supplier exercises market power | $/MWh | $5,000 | | |
| Purchase cost per MWh if pivotal supplier cannot exercise market power | $/MWh | $80 | | |
| Reduction in purchase cost per MWh by avoiding pivotal supplier situation | $/MWh | $4,920 | | |
| Affected volume of demand | MW | 50 | | |
| Time period | Hours | 10 | | |
| Annual benefit from reduction in purchase costs | $m/year | $2.5 | | $0.0 |
| Present value of benefits | $m | $23.9 | | $0.0 |
| | | | | |
| **Costs** | | | | |
| Battery cost - standing cost | $/kW/year | $82 | | $82 |
| Battery size | MW | 10 | | 10 |
| Battery cost per year | $m/year | $0.8 | | $0.8 |
| Present value of costs | $m | $8.0 | | $8.0 |
| | | | | |
| **Net benefit/cost (present value)** | $m | $15.9 | | -$8.0 |
| | | | | |
| | | | | |
| *Discount rate* | *6%* | | | |
| *Term (years)* | *15* | | | |

D.23 While the example is illustrative in nature, it is not implausible. The assumed 50 MW of load is smaller than the demand in six of the seven local pivotal supplier examples noted in Appendix E. The assumed annual average price uplift is similar to that observed in one of the examples in Appendix E. The battery cost estimates mirror those used in the Authority's 2019 cost benefit analysis for transmission pricing methodology changes. Those estimates were based on reported costs for the 100MW Tesla battery installed in 2017 in South Australia.[23] A more recent Australian report contained cost estimates for 25MW batteries. If estimates from this report were used, the expected net costs from the illustrative local pivotal supplier situation would be even higher.[24]

D.24 In conclusion, there are good grounds to believe that appreciable efficiency impacts can arise from local pivotal supplier situations, depending on how suppliers behave in future.

D.25 Turning to wider pivotal supplier events, recent experience provides an indication of the efficiency issues that can arise. The Authority found that in December 2019 "a confluence of factors" existed that reduced the normal competitive pressure in the wholesale market, which led to the Authority finding an undesirable trading situation.[25] This resulted in unnecessary [hydro] spill and prices remaining abnormally high when compared against the supply and demand conditions".[26] The Authority has previously noted that the events of December 2019 raised three efficiency concerns[27]:

(a) Water was not used for generation despite not being storable and therefore having an opportunity cost of zero. This meant more expensive resource was used, including thermal generation.

[23] Electricity Authority, CBA approach, methods and assumptions, TPM issues paper, 23 July 2019 at page 55.

[24] Aurecon, 2019 Costs and Technical Parameter Review prepared for Australian Energy Market Operator, March 2020.

[25] An investigation into whether there were breaches of the current trading conduct provisions during the UTS period is ongoing.

[26] Electricity Authority, Undesirable Trading Situation Final Decision Paper, 22 December 2020 at page ii.

[27] Electricity Authority, Undesirable Trading Situation Preliminary Decision Paper, 30 June 2020 at pages 93-94.

(b) As the spot price would have been lower if the excess spill had been used for generation, there was a potential allocative efficiency cost as some efficient consumption may not have occurred.

(c) Any associated mispricing of forward contracts would be likely to affect investment decisions, i.e. dynamic efficiency.

D.26 The Authority considered that these efficiency effects and the second order competition effects could all affect consumers in the long run.

D.27 Because wider pivotal supplier events can affect large areas of the country or even the whole market, the potential efficiency impacts can be larger than for localised events. An indication of the potential costs can be gauged by considering the consequences of even modest over-investment in battery storage or generation capacity to mitigate exposure to pivotal suppliers.

D.28 The New Zealand electricity system has total installed generation capacity of approximately 10,000 MW.[28] If there was over-investment of just 0.5% in unnecessary battery supply capacity (i.e. 50MW), that would impose an efficiency cost of approximately $40m in present value terms based on the battery cost information used in the local pivotal supplier example. If the extra capacity was in the form of open cycle peaking units, it would impose an efficiency cost of $60m.[29] This clearly indicates there are material efficiency benefits at stake from deterring problematic trading conduct.

## Will the current or proposed Code be better at deterring problematic conduct?

D.29 The Authority is of the view that it is very difficult to predict the *absolute* level of problematic conduct under any trading conduct mechanism in the Code because outcomes will be heavily influenced by a range of factors that are distinct from the Code. These include underlying behavioural drivers within participant organisations, the level of penalties for non-compliance, and the attitudes of decision-makers to risk. However, the Authority considers it is possible to assess the relative effectiveness of alternative Code provisions in deterring problematic conduct.

D.30 Looking first at the current provisions in the Code, as detailed in section 2 the core operative provision does not have any clear legal meaning. On the contrary, it simply requires participants to act consistent with a "high standard" of conduct and this term is not further defined. Importantly, there is no assurance that decision makers (participants, and the Rulings Panel or courts) will even use economic efficiency as the lens for analysis.

D.31 While the current provisions contain safe harbour provisions which are expressed in more concrete terms, these do not provide clarity in the situations where it is most needed. For trading periods and nodes where a supplier is net pivotal, there can be no reduction in uncertainty since the supplier will never be able to satisfy the safe harbour provisions.

D.32 For trading periods and nodes where a supplier is gross pivotal, there is some reduction in uncertainty, but it is far from complete. To qualify for safe harbour protection, a supplier must (among other things) satisfy one or more limbs of clause 13.5B(1)(c). Each limb contains at least one key aspect that is unclear:

(a) Clause 13.5B(1)(c)(i) provides safe harbour protection if a supplier's offers do not result in a material increase in the final price, compared with the price in an immediately

[28] According to the Ministry of Business Innovation and Employment, there was 9,271 MW of installed capacity excluding smaller scale distributed generation at the end of 2019. Since then around 500 MW of new capacity has been installed or committed for development by the end of 2021.

[29] This assumes thermal peaker capacity has a cost of $124/kW/year, which is the estimate used by the Authority for the cost benefit analysis for real time pricing.

preceding trading period or other comparable trading period in which the generator is not pivotal. It is not clear what "result in" or "material increase" mean. Furthermore, this limb provides little or no practical guidance for suppliers who are always (or almost always) pivotal.

(b) Clause 13.5B(1)(c)(ii) provides safe harbour protection if a supplier's offers are generally consistent with offers it has made when it has not been pivotal. It is not clear what "generally consistent" means. Furthermore, this limb provides little or no practical guidance for suppliers who are always (or almost always) pivotal.

(c) Clause 13.5B(1)(c)(iii) provides a safe harbour protection if a supplier "does not benefit financially from an increase in the final price at which electricity is supplied in a trading period" but the reference point for the comparison is not clear, and it could be a hypothetical case or a prior or later trading period.

D.33 The only suppliers with relatively clear obligations under the current provisions are those which are never pivotal. These participants simply need to offer all their available capacity and make any changes in a timely way to qualify for the safe harbour protection. However, the conduct of these suppliers is unlikely to raise any policy concern (unless they coordinate with, or shadow, pivotal suppliers).

D.34 Few parties are expected to fall consistently into the category of never being pivotal. This is because under the current provisions the pivotal test is performed at every individual node on a half hourly basis. For this reason, most suppliers are likely to be pivotal at some point (or at least will not be sure of their status beforehand). Given these factors, most participants are not insulated from the uncertainties in the operative provision and clause 13.5B(1)(c) of the Code.

D.35 In addition to these issues, the safe harbour provisions may themselves undermine economic efficiency. For example, they can encourage standing offers set at inefficiently high prices which are only dispatched when a supplier is pivotal, since these would arguably satisfy clause 13.5B(1)(c)(ii)).

D.36 The opacity and problematic nature of the current trading conduct provisions was highlighted by the two evaluation panels established by the MDAG. As shown in section 3, these evaluation panels were convened to shed light on how the current provisions and an initial proposed rule might be interpreted by the Rulings Panel or courts (noting that no actual cases have been heard to date by any adjudicatory body).

D.37 Panel ABD's report stated that the core test "has no recognised meaning in law" and the "safe harbours may protect poor conduct from sanction".[30] Panel BHR's report stated that the current Code was "very unsatisfactory" and required the application of a "broken test".[31]

D.38 A range of participants also considered the current trading conduct provisions to be inadequate. Genesis stated *"there are occasions where generators have the ability to exercise unfettered market power"* and that *"reform is justified"*.[32] The Major Electricity Users Group said *"we accept the status quo is unworkable and not a viable option for the future".*[33] *Meridian described the current provisions as "too vague to be useful or easily understood by participants"*[34] and it judged *"the current HSOTC provisions to be unworkable"*.[35]

[30] Report of Evaluation Panel ABD, at page 6.

[31] Report of Evaluation Panel BHR, at page 5.

[32] Genesis Energy submission 4 May 2020 at page 1.

[33] Major Electricity Users Group submission 5 November 2020 at page 2.

[34] Meridian Energy submission 4 May 2020 paper at page 3.

[35] Ibid, at page 1.

D.39 Turning to the proposed rule, as noted in section 4 the test in the proposed rule is specifically targeted at the prime issue of concern, i.e. situations where a supplier can raise prices to inefficiently high levels. In such situations the proposed rule requires the application of a test based on economic efficiency principles. Furthermore, the proposed rule does not contain safe harbour provisions which can shelter problematic behaviour from sanction. These factors provide a strong basis for expecting the proposed rule to outperform the current provisions in deterring supplier conduct which causes inefficient outcomes.

D.40 A range of participants (including some suppliers likely to be pivotal at times) appear to share this view. For example, Contact supported the proposed rule and said it *"is clearer than the existing HSOTC rule"*.[36] Genesis stated that *"the proposed rule in [clause (ii)] is a better approach, as it more clearly identifies the situation in which it is intended to apply, and the type of conduct it is meant to prevent (i.e. taking advantage of significant market power)."*[37] The Independent retailers endorsed the MDAG's view that the *"proposed code change is considerably better than the existing high standard of trading conduct provisions".*[38] Nova Energy said it *"supports the proposed rule in the form presented"*.[39]

D.41 Having said that, some participants were more equivocal. Trustpower stated that the proposed rule is "possibly" better than the current provisions but was unsure because the current rules *"are accompanied by safe harbour clauses and a requirement that a generator be net pivotal. Taken as a whole, these provisions [have given] us comfort around the behaviour that is, and is not, permitted. The Authority appreciates that may not be true for all market participants, particularly those who are often net pivotal".*[40]

D.42 Trustpower's submission seems to imply that the current provisions are clearer for suppliers which are not net pivotal. However, this overlooks the critical point that the Code's effect on pivotal (especially net pivotal) suppliers is the more relevant consideration when assessing the effectiveness of alternative Code provisions.[41]

D.43 Meridian stated that it tentatively supported the *"substantive test"* in clause (ii) of the proposed Code, but had *"concerns with aspects of the drafting, the lack of certainty for participants, and the potential for unintended consequences"*.[42] As regards the issue of certainty, the Authority agrees that the proposed rule would not provide absolute certainty for participants. However, no effective rule can achieve that because there will always be a need for judgment in applying an economic efficiency test.

D.44 In the Authority's view, the relevant consideration is whether the proposed rule is better than the current one. The Authority considers there can be little doubt that the proposed rule is preferable to a generic 'high standard' rule because it would place the debate within an economic efficiency framework. The Authority also considers there would be less scope for unintended outcomes under the proposed rule for reasons set out in paragraphs D.62 to D.68.

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[36] Contact Energy submission 5 November 2020 at page 1.

[37] Genesis Energy submission 5 November 2020 at page 6. Genesis went on to say that the proposed Code will not resolve all ambiguities and that guidelines would also be useful.

[38] Independent retailers' submission 2 November 2020 at page 5.

[39] Nova Energy submission 2 November 2020 at page 1.

[40] Trustpower submission 4 November 2020, page 3.

[41] Trustpower also appears to overlook the uncertainties in clause 13.5B(1)(c) of the Code which apply to pivotal suppliers (whether they are net pivotal or not).

[42] Meridian Energy submission 5 November 2020 at page 2.

## Overall view on gross benefits

D.45 The Authority considers that there are strong grounds to expect the proposed rule to perform better than the current provisions in relation to gross benefits. This is because the proposed rule is specifically targeted at the issue of concern and it applies an economic efficiency test. Furthermore, the proposed rule does not contain safe harbour provisions which can shelter problematic behaviour from sanction.

D.46 Moreover, the difference in performance could yield appreciable economic benefits, given that the efficiency impacts from not properly deterring problematic conduct could plausibly be many tens of millions of dollars in present value terms as set out in paragraph D.28.

## Compliance costs

D.47 Participants will incur costs to understand and comply with the trading conduct provisions of the Code, for example in training staff. In this report, this category of expenses is referred to as compliance costs.

D.48 For participants that are never pivotal it is expected that compliance costs to be very low under the current provisions. Such participants are able to meet the safe harbour requirements in clause 13.5B simply by offering all available capacity and by submitting or revising offers in a timely way. These participants do not need to meet the additional and more complex requirements in clause 13.5B(1)(c) which only applies to pivotal suppliers.

D.49 For participants that are never pivotal it is expected that compliance costs to remain very low under the proposed rule. The key reason is that only parties with small market shares will never be pivotal.[43] Such parties will be price takers[44] and will have a natural commercial incentive to offer all of their resources at efficient prices. This type of offer behaviour would clearly be within the scope of conduct permitted by the proposed rule.

D.50 Turning to suppliers who are (or might be) pivotal, it is expected that they will face appreciable compliance costs if the current provisions remain in place. The key reason is that the operative provisions in the current provisions do not have a clear meaning, as noted above. Furthermore, while the safe harbour clauses in the current provisions mitigate some of the uncertainty in the operative provision, the clauses themselves are unclear in some key respects as discussed in paragraph D.32. Overall, these factors mean the safe harbour provisions only provide relative certainty (and reduced compliance costs) for suppliers who are (and expect to be) non-pivotal.

D.51 If the proposed rule is adopted, it is expected that some initial increase in compliance costs for pivotal suppliers as parties familiarise themselves with the new rule and make any necessary adjustments to their internal processes. However, over the longer run it is expected that costs to be lower (or at worst similar) under the proposed rule because it contains operative provisions which are clearer and based on recognised economic efficiency concepts.

D.52 In summary, for non-pivotal suppliers it is expected that compliance costs will be very low and much the same under the current and proposed rule. For pivotal suppliers, it is expected that compliance costs under the proposed rule to be temporarily higher as it beds in, but after that it is expected cost to decline. In average terms over time, it is expected that costs to be lower than (or at worst similar to) the current provisions.

[43] For a party to never be pivotal (even in tight supply periods) it must have a very small market share.

[44] A participant which is a 'price taker' has no ability to raise market prices by restricting its output or lifting its own offer prices.

## Enforcement costs

D.53 Enforcement costs are the costs that will be incurred by the Authority, Rulings Panel, courts and participants in connection with monitoring compliance with the Code and determining any breach allegations.

D.54 Future enforcement costs will be affected by a range of factors including:

(a) The total resources available to the Authority, and the extent to which it prioritises monitoring and enforcing the trading conduct provisions compared to other matters.

(b) The number of alleged conduct breaches and associated investigations which arise.

(c) The level of resource required to be applied to each alleged breach case by the Authority, the relevant participant(s), the Rulings Panel and courts in order to make determinations under the Code.

D.55 The Authority regards the first factor as being largely independent of the wording of the Code's trading conduct provisions. The Authority notes the MDAG has recommended the Authority apply more resource to monitoring and enforcing the trading conduct provisions. The Authority agrees with this recommendation.

D.56 The other two factors are more directly affected by the trading conduct provisions in the Code. There have been multiple potential or alleged breaches reviewed by the Authority, and these have resulted in five in-depth investigations.

D.57 If the proposed rule is adopted, there may be a temporary increase in the number of alleged breaches and investigations as all relevant parties become more familiar with the new rule. However, it appears likely that the number of alleged breaches and investigations over time would be lower under the proposed rule. This is because the number of breaches and investigations will be affected by the clarity of the Code's provisions.

D.58 Broadly speaking, the clearer the provisions, the less likely it is that participants will potentially breach the Code and investigations will be triggered, since participants will perceive a higher probability of being sanctioned. As set out in paragraphs D.29 to D.44 the Authority considers that the proposed rule has clearer tests than the current provisions. Hence, it seems likely that over time the number of alleged breaches and investigations will be lower (or at least no higher) than if the current provisions remain in place, subject to the comments in paragraph D.55.

D.59 The Authority notes some parties have expressed concern that the proposed rule could create more scope for vexatious breach allegations, and this would raise enforcement costs.[45] The Authority considers this prospect to be remote because clauses (i) and (ii) of the proposed rule make it clear that the conduct provisions are intended to act as a backstop rather than supplanting normal competition. In addition, the proposed rule provides that market power becomes significant only when its exercise would have a net adverse impact on economic efficiency. Lastly, the Authority decides whether to progress any alleged breach to a full investigation. It would only do so if it considered that a claim had solid grounds.

D.60 The other issue to consider is the level of resource required to investigate and determine each alleged breach. This is also influenced by the clarity of the Code's provisions. Again, the Authority expects the greater clarity of the proposed rule will lead to lower costs over time.

D.61 In conclusion, the Authority expects enforcement costs are likely to be higher under the proposed rule as it beds down, but then be lower over time due to its greater clarity. In average terms over time, the Authority expects enforcement costs to be lower (or at worst similar) under the proposed rule.

[45] For example Mercury Energy submission 5 November 2020 at page 2, and Contact submission 4 May 2020 at page 4.

## Unintended efficiency costs

D.62 The Authority has considered whether the proposed rule will create unintended efficiency costs (referred to as indirect costs in the MDAG's Recommendations paper). For example, whether the proposed rule would undermine investment incentives and in turn harm reliability or restrict competitive conduct and therefore raise longer-term costs for consumers. It is important to consider these effects because if they were to arise, the associated costs could conceivably overwhelm the expected benefits of the proposed rule.

D.63 The base line for assessing this issue is the current provisions. As noted earlier, its core operative clause is framed in very broad terms and at this time it is hard to predict how it will be interpreted by the Rulings Panel and courts. It is quite conceivable that future enforcement actions will not fully account for all relevant economic factors. Indeed, there is no guarantee that decision-makers will even use an economic efficiency lens. This means there is real potential for unintended economic efficiency effects to arise in the future under the operative provision of the current provisions.

D.64 Furthermore, as noted in paragraph D.35, there is clear potential for the safe harbours to have the unintended effect of shielding problematic supplier conduct from sanction.

D.65 In relation to the proposed rule, the operative requirement is more tightly defined than the current provisions and is explicitly based on economic principles. These factors should limit the scope for unintended adverse efficiency costs to arise from enforcement actions or participant behaviour.

D.66 In addition, clause (iii)(a) states that "market power becomes significant when its exercise would have a net adverse impact on economic efficiency, **which includes productive, allocative and dynamic efficiency**" (emphasis added). This clause would require the Rulings Panel or courts to consider all relevant efficiency effects associated with any enforcement action in relation to clause (ii).

D.67 For example, Trustpower in a submission to the MDAG queried whether a Code amendment might reduce efficiency by *"removing market participants' ability to use their offer prices to hedge transmission risks, recovering a margin for operating at times of transmission congestion [and] creating incentives for set and forget offers"*.[46] The Authority considers that clause (iii)(a) would ensure these types of issues are properly considered in any determination about an alleged breach. This should provide a safeguard against unintended outcomes that reduce economic efficiency in net terms.

D.68 Overall, this assessment shows that unintended efficiency costs under the proposed rule are likely to be lower than if the current trading conduct provisions remain in place. This is because the proposed rule has much clearer provisions and an explicit economic focus. Clause (iii)(a) of the proposed rule also provides a safeguard against the Code being applied in a way that creates unintended net efficiency losses. No equivalent safeguard exists in the current provisions.

## Overall net efficiency impact

D.69 Table 4 summarises the expected economic efficiency impacts of the proposed rule relative to the current code. The third column shows the effect of each individual benefit or cost category on net benefits.

[46] Trustpower submission on MDAG's October 2020 paper at page 2.

**Table 4: Expected impact of proposed Code on economic efficiency**

| Category | Impact of proposed rule | Effect on net benefit |
|---|---|---|
| **Gross benefit** | Expected to be higher | Positive net benefits |
| Compliance costs | Expected to be lower (or similar) | Positive net benefits (or no change relative to status quo) |
| Enforcement costs | Expected to be lower (or similar) | Positive net benefits (or makes no change relative to status quo) |
| Unintended costs | Expected to be lower | Positive net benefits |
| **Total costs** | Expected to be lower | Positive net benefits |
| **Net impact** | Expected to be higher | Positive net benefits |

D.70 Key observations from Table 4 are:

(a) The proposed rule is expected to produce greater gross economic benefits.

(b) The proposed rule is expected to reduce unintended costs and reduce (or at worst have no net effect) on compliance and enforcement costs.

(c) Because unintended costs are expected to be lower under the proposed rule, and (at worst) compliance and enforcement costs will be unchanged, total costs are expected to be lower.

D.71 In conclusion, because gross benefits are expected to be higher and total costs lower under the proposed rule, there are very strong grounds to consider that the proposed rule will deliver net overall benefits.

# Appendix E Local pivotal supplier situations

| Pivotal generator | Load in region | How does the situation arise? | How frequently is generator pivotal? | Historical prices when generator was pivotal[47] |
|---|---|---|---|---|
| Arapuni 1 | ~80 MW | Region can be import constrained from LFD to TRK with high load. | Generator appears to be pivotal on numerous occasions, but prices rarely separate. | There were only 6 periods since 2012 with prices of over $200/MWh and significant price separation. |
| Arapuni 1 & 2 | ~120 MW | Arapuni-Bombay and Arapuni-Hamilton circuits are open, and region is import constrained | Situation has not occurred often historically, but did for >2,000 periods in 2019 | Price reached $5,000/MWh for one period in 2020 and was elevated (159 to 275 $/MWh) for ten periods during one other day. |
| Mangahao | ~149 MW | Combination of outages can leave region import constrained. | Rarely. About 1 hour a year. | Price of $3,000/MWh in 2017. |
| Waikaremoana | ~156 MW | Region is import constrained. This may be caused by outage of a transformer at Redclyffe or similar. | This is often an issue. Even without an outage, there is a group constraint that limits the double circuit to roughly the capacity of a single transformer. | Price separation with prices over $200/MWh is becoming more frequent, with 8 periods in 2019 and 18 in 2020 through October. The highest price seen was $1,500/MWh in 2019. |
| Waikaremoana | ~46 MW at Fernhill and ~22 MW at Tuai | Spring washer effects can result in very high prices at Tuai and Fernhill. | Flows around the FHL, TUI, RDF loop can cause high prices – this is complicated and not necessarily related to an outage. | High prices at Tuai and low at Redclyffe occur about 4 hours a year. However, they were more common in 2019 and 2020, with prices reaching $4,995/MWh at Tuai in 2019 and $1750/MWh in 2020.<br>In 2019 prices at FHL0331 were around $6/MWh higher than prices at RDF2201 on average across all trading periods. |
| Tekapo A | ~4 MW | An outage of either of two lines supplying the region. | About 200 hours per year.<br>As this is a single circuit, during any outage local supply becomes pivotal. | During 2012 prices reached $3,000/MWh. Prices reached $995/MWh in 2018 and were over $500/MWh on 6 other occasions.<br>No instances of elevated prices have been observed in 2020 |
| Waipori | ~81 MW | Various outages can leave region import constrained. | Infrequently (<10 hours a year) but experienced sustained pivotal supplier events (more than 70 hours) in 2012 and 2018. | Prices rarely exceed $400/MWh.<br>Prices during prolonged 2018 event were consistently around $150/MWh. |

[47] Note that there may be valid reasons for (at least some) price separation during these local pivotal supplier situations (such as scarcity concerns). The Authority makes no assessment of whether there are reasonable efficiency grounds for the observed price outcomes

# Appendix F Addressing the issues and concerns raised by submitters

| Submitter(s) feedback | MDAG's response | Authority's view |
|---|---|---|
| The proposal would lead to *de facto* price control. | This is not the policy intention of the proposed rule and it is unlikely to be the outcome of the courts or the Rulings Panel if they apply correctly the relevant provisions. | There is a very low risk that the proposed rule will be interpreted as a form of price control. At no point in the proposed rule does it set any cap on offering behaviour. The 'normal' price signalling observed in a properly functioning competitive market such as raising offers to signal genuine scarcity situations would still be permissible with the proposed rule. |
| The proposal might encourage opportunistic or vexatious breach allegations to a wide range of offers. Impose an application fee payable in advance, or reimbursement of costs, to mitigate this risk. | The preamble to the rule (in clause 1(b)) makes it clear that the rule is concerned with situations where one or more generators (or ancillary service agents, as the case may be) has significant market power. Further, clause 3(a) provides a threshold for when market power becomes significant (which requires a net adverse impact on economic efficiency). Opportunistic or vexatious claims could make no progress unless they reached those thresholds. | The risk that opportunistic claims progress beyond an initial evaluation by the Authority is low because, as MDAG stated, the threshold for proving that a breach has occurred in the rule is high, i.e. the exercise of market power must have a net adverse effect on economic efficiency. The proposed rule should not have an impact on the ability to raise claims. |
| The rule should apply only to pivotal suppliers. | The definition of "pivotal" does not map across to "significant market power", which is the central yardstick of the proposed rule. Merging the two concepts within the rule would only create incoherence. Linking "significant market power" to economic efficiency is a better framework. Also, in practice, it is often not clear whether a party is gross or net pivotal *ex-ante*. Limiting the rule to pivotal suppliers would also not capture certain situations, such as 'coat-tailing', and would reduce the potential efficiency gains and the long-term benefits to consumers. | Limiting the rule to pivotal suppliers would not fully capture the policy intent of the trading conduct mechanism and would reduce the potential gains to consumers. As pointed out by the MDAG, limiting the rule would also complicate its interpretation. |
| The test should be against "workable competition" instead of "significant market power". | Using "significant market power" as the yardstick for the proposed rule rather than "workable competition", avoids various problems that would arise if "workable competition" is used. If we were to compare an offer in question with the offer that the supplier would have made in a market with "workable competition" – A supplier would be able to argue that its offer under this counterfactual would be the same (or close to) the offer actually made because workable competition accommodates passing periods of weak or very limited competition and the supplier would cite other apparently plausible reasons for its high offer. It would also be argued that price efficiency under workable competition is gauged by reference to the tendency of spot prices over the longer term relative to Long Run Marginal Cost (LRMC), not by short term prices in isolation, which would therefore support the supplier arguing that the trend of its offers over the longer term is consistent with LRMC despite its apparent transient exercise of market power. Further and more generally, there remains real uncertainty about the meaning of "workable competition". | The Authority uses 'workable competition' to interpret the competition limb of its statutory objectives. However, within the policy intent of the trading conduct mechanism, using workable competition as the yardstick would be problematic because under workable competition, spot prices should tend towards long run marginal costs over time. As the MDAG notes, this is not well suited to determine short term price efficiency that is the focus of trading conduct. |
| Guidelines are needed to provide a high level of certainty for wholesale traders in their day-to-day trading activities. | The proposed rule is considerably less uncertain than the existing HSOTC provisions. It locates the core test within a coherent framework, with established concepts and boundaries, that is both more certain to market participants, and much more aligned with the requirements of the Code. The problem of uncertainty is not with the proposed rule; rather, it arises from the underlying uncertainty in gauging if and when competition has reached a level of weakness that it causes outcomes adverse to the market as a whole and how it impacts on economic efficiency. This boundary between sufficient and insufficient competition is inescapably a matter of judgement, not a mechanical formula. If in doubt, compliance with the proposed rule is available by market participants acting on the assumption that they face vigorous competition. | Guidelines are not appropriate because, as MDAG notes, there is no black and white boundary that establishes when an offer complies or does not comply with the proposed rule, as whether an offer is appropriate depends on the particular circumstances when the offer is made. |
| Guidelines should include specific examples of when offers may be in breach of the proposed rule. | A 'black and white' manual is impractical because trying to cover all likely fact situations would give rise to an almost infinite number of cases and permutations without necessarily answering the next fact situation that a trader may be dealing with. Market participants need to understand and apply the framework to its particular situation and mix of activities. Maintaining an internal capability of explaining changes in offers is also important. | The Authority does not intend to publish guidelines. However, the Authority will make readily available any decisions by the Rulings Panel or the courts on the Authority's website to assist market participants' understanding of the proposed rule. The Authority will consider providing access to information on other compliance actions not currently made publicly available. The Authority encourages market participants to familiarise themselves with the contents of the documents the MDAG prepared in its review of the trading conduct provisions. |
| Certain costs of the proposed change had been overlooked or under-valued. The proposal may deter efficient behaviour and this cost has not been considered. | The proposal is not expected to increase indirect costs relative to a situation where the current HSOTC provisions are retained. The operative provision in the current HSOTC provisions have no clear meaning, whereas the proposed rule is based on conventional economic principles. | The Authority disagrees with the view the proposed rule would deter efficient behaviour and on the contrary, the proposed rule is expected to reduce the frequency of inefficient offering behaviour by (pivotal) market participants. Further, the proposed rule sets a relatively high threshold for breach of the rule as it only captures the exercise of market power that has a net adverse impact on economic efficiency. This should limit the extent to which it deters efficient behaviour. |

| Submitter(s) feedback | MDAG's response | Authority's view |
|---|---|---|
| The proposed rule might have costs or risks such as "removing market participants' ability to use their offer prices to hedge transmission risks, recovering a margin for operating at times of transmission congestion [and] creating incentives for set and forget offers", which were not included in the CBA. | Situation-specific information would be needed to assess the merits of this type of conduct, and to determine how each case would be viewed under the proposed rule. The proposed rule requires an assessment of whether alleged misconduct is giving rise to a net adverse impact on economic efficiency. Accordingly, if a breach was alleged, the defendant would have a robust defence if it could show that the conduct had efficiency benefits (including dynamic efficiency) which exceeded any costs. | In past decisions, the Authority has made it clear that inefficiently raising offer prices through the exercise of market power to hedge against transmission (or any other) risks is prohibited under the trading conduct provisions. For such offers to comply with the proposed rule participants would need to demonstrate that it did not have a net adverse impact on efficiency. A range of mechanisms are available for participants to hedge their risks, including using hedge market instruments. Further, participants can recover their costs when they are infra-marginal or, for last resort generation, when prices need to rise to reflect genuine scarcity. |
| Compliance costs might increase under the proposed rule which have not been accounted for in the CBA. | This concern seems to stem from a view that the proposed rule might encourage opportunistic or vexatious breach allegations, and therefore result in higher legal and associated costs. This concern has been addressed separately. | The proposed rule is intended to be more certain than the current HSOTC provisions. The proposed rule is clearer and easier to implement by market participants. In the longer term, this should decrease compliance costs relative to the status quo. Further, the threshold for breach is limited to situations when the exercise of market power has a net adverse effect on efficiency, which should limit the scope for vexatious claims. |
| Various concerns around the CBA:<br>• a full quantitative CBA is needed<br>• benefits were over-stated<br>• costs (especially from unintended efficiency losses) were under-stated. | A quantitative CBA would only be as meaningful as the assumptions upon which they were based. Key among those assumptions would be how the Rulings Panel or courts would apply the existing and proposed rules, and how parties would behave in the light of their view of how the Rulings Panel or courts would apply the two rules. There is simply no reliable evidence-based quantified data on which to base those assumptions for the purposes of a fully quantified CBA. Our approach has therefore been to do a qualitative CBA, informed by the evidence produced from the evaluation panels process, together with quantitative sensitivity analysis in relation to a selection of actual examples of local pivotal market power. We consider this to be a relatively robust and transparent approach to assessing costs and benefits in relation to our proposal. | The Authority prepared a CBA (see Appendix D) which analyses the costs and benefits of the proposed trading conduct rule relative to the status quo. It qualitatively assesses the direction of change in costs and benefits and sets out reasoning for this assessment. It quantitatively estimates the potential gross benefits from avoiding inefficient investment from hypothetical localised and wider pivotal situations. The Authority considers that this CBA approach is robust and its findings clearly show that the proposed trading conduct rule would result in net benefits compared to the status quo. |
| Link the definition of when market power becomes significant more closely to all three limbs of the Authority's statutory objective. | The economic efficiency test links strongly to the competition limb of the statutory objective for the long-term benefits to consumers. | The central objective of the proposed rule is to improve price efficiency in the wholesale electricity spot market (the third limb). This ties very closely to the other statutory objectives (of promoting competition and supply reliability). The proposed rule is expected to contribute to all three limbs as set out in the regulatory statement in this paper. |
| The test of when market power becomes significant should include when it would "otherwise cause harm to consumers". | In effect, this is proposing that the test should include distributional or wealth transfer considerations, which the Authority has excluded in its interpretation of its statutory objective. | The Authority's statutory objective does not include any distributional elements and long-term benefits to consumers are obtained through promoting economic efficiency, which the proposal addresses. |
| Replace "at the point of connection to the grid and in the trading period to which the offer relates" with "in the spot market" to avoid the risk of the market being always defined as a point of connection or specific trading period when that is simply not the case. | In reality, the market definition will vary according to each situation, taking account of factors such as the scope for substitution on the demand-side (e.g. by deferring usage) and the supply-side (e.g. extent to which other suppliers can respond). The proposed market definition of "in the spot market" would imply the entire geographic extent of the spot market is always the frame of reference, which is clearly not correct. | By widening the definition of 'market' to the entire geographic extent of the spot market would have the effect of watering down the proposed rule. This approach could potentially exclude breaches that occur at the local or regional level, which constitute the more common instances where parties abuse their market power. |
| Market power can only be assessed in a properly defined market and its definition would depend on the facts. It could conceivably range from a single node and trading period through to the national market considered over multiple trading periods. | This concern is addressed by Clauses 2(a) and 2(b) of the proposed rule in its reference to a test of whether a supplier "could exercise significant market power **at** the point of connection to the grid and **in** the trading period to which the offer relates"; and Clause 3(a) which defines when market power becomes significant. The references in clauses 2(a) and 2(b) do not use the "in relation to" language which might be construed as implicitly defining a market. Instead, the clauses use the physical reference terms needed to identify a particular offer (a location and time). More importantly, the inclusion of a definition of "significant" in clause 3(a) should remove any doubt about an overly narrow (or wide) definition being applied to either the location or time period when assessing market power. It achieves this by making it clear that market power becomes significant when its exercise would have net adverse efficiency impacts. | Specifying that the proposed rule relates to the exercise of market power is appropriate, as a party that is able to exercise market power in a manner that is detrimental to economic efficiency at levels of aggregation beyond the node at which they are operating will also have the ability to do this at its individual node. The proposed rule does, however, allow consideration of wider effects as breach of the rule is only possible where there is a net adverse impact on economic efficiency. |
| It is not clear what the term "net" in the definition of significant market power is referring to. Any attempt to define significant market power is overly broad as it has no countervailing costs of intervention threshold to overcome and all market power is significant because exercising market power even a little would have an adverse impact. | The efficiency measures in the proposal sufficiently inform the definition of net adverse impact: "market power becomes significant when its exercise would have a net adverse impact on economic efficiency, which includes productive, allocative and dynamic efficiency". The reference to "net" requires an adjudicator to consider all economic efficiency effects (negative and positive) which arise from an alleged exercise of market power, rather than just the harmful effects. The word "net" is not further defined because it is not possible to know in advance the kind of effects that might be raised in this category. However, these could include matters such as incentives to invest in future capacity, to properly manage risks, and to innovate by providing new products or services. Accordingly, if there are positive efficiency impacts which outweigh the negative effects arising from the exercise of market power, then the 'significant' threshold will not be reached and no breach of the proposed rule would have occurred. On this basis, it is not correct to say that the costs of an intervention (i.e. breach finding) are overlooked. Nor is it correct that all market power is significant. | The Authority agrees with the MDAG that the assessment of 'net' adverse impact requires an adjudicator to consider all economic efficiency effects (negative and positive) which arise from an alleged exercise of market power. This is subject to the circumstances of the alleged breach and cannot be *a priori* defined. |

| Submitter(s) feedback | MDAG's response | Authority's view |
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| The requirement for generators (and ancillary service agents) to 'act rationally' is not required. | Without the words "acting rationally", it would leave the proposed rule open for a generator to argue (and for a court to interpret) the rule as saying that the test is the generator's subjective view on what it would do in the counterfactual. | The Authority agrees with the MDAG that including the term 'acting rationally' clarifies that the test is not the generator's subjective view of what it would do in the counterfactual. As some submitters on the MDAG's October 2020 supplementary consultation paper noted the concept of 'acting rationally' is well understood by the courts and is consistent with what is intended under the proposal. |
| The MDAG placed undue weight on the use of evaluation panels relative to submissions. The evaluation panel process was opaque and the MDAG controlled the content to which panel members were exposed as well as the presentation of the evaluation panels' findings. | The MDAG strongly refutes these claims. The MDAG duly considered all feedback received from submitters and all submitters had the opportunity to provide their feedback on the case study materials that was evaluated by the panels. Throughout the process, MDAG was especially careful to ensure that panel members were not guided in any way by MDAG or the Authority in relation to how the panels interpreted or applied the two sets of provisions, or in relation to the relative merits the existing code compared to the proposal. MDAG also ensured that the two panels worked independently of each other, with the panel sessions held on separate dates and in different locations. Each panel provided its own report on its findings and recommendations, and both reports were published on the Authority's website. | The Authority considers that the evaluations panel process was both robust and transparent. The Authority notes that the MDAG sought input from submitters on the hypothetical scenarios evaluated by the panels, published the findings of the panels and discussed these findings with submitters at the conclusion of the evaluations panel process. The Authority considers the evaluations panel process enriched the MDAG's review. The Authority also notes that the MDAG undertook further consultation upon completion of the evaluation panels process and provided stakeholders with the opportunity to submit on any conclusions arising from it which they considered were incorrect or problematic. In any case, the Authority is now providing the opportunity to raise submissions directly through this consultation. |

# Appendix G How to make a submission

G.1 The Authority's preference is to receive submissions in electronic format (Microsoft Word) in the format shown in Appendix A. Submissions in electronic form should be emailed to tradingconduct@ea.govt.nz with "Consultation Paper — Trading Conduct" in the subject line.

G.2 If you cannot send your submission electronically, please contact the Authority to discuss alternative arrangements.

G.3 Note the Authority intends to publish all submissions it receives. If you consider that we should not publish any part of your submission:

(a) Indicate which part should not be published

(b) Explain why you consider we should not publish that part

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

G.4 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.

G.5 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 1982 to withhold it. We would normally consult with you before releasing any material that you indicated should not be published.

G.6 Please deliver your submissions by 5pm on Tuesday 23 March 2021.

G.7 We will acknowledge receipt of all submissions electronically. Please contact the Authority tradingconduct@ea.govt.nz or 04 460 8860 if you don't receive electronic acknowledgement of your submission within two business days.

# Glossary of abbreviations and terms

| | |
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| **Authority** | Electricity Authority |
| **Act** | Electricity Industry Act 2010 |
| **CBA** | Cost-Benefit Analysis |
| **Code** | Electricity Industry Participation Code 2010 |
| **EPR** | Electricity Price Review |
| **EU** | European Union |
| **HSOTC** | High standard of trading conduct |
| **MARIA** | Metering and Reconciliation Information Agreement |
| **MBIE** | Ministry for Business, Innovation and Employment |
| **MDAG** | Market Development Advisory Group |
| **NRA** | National Regulatory Authorities |
| **NZEM** | New Zealand Electricity Market |
| **Regulations** | Electricity Industry (Enforcement) Regulations 2010 |
| **REMIT** | [EU] Regulation on Wholesale Energy Market Integrity and Transparency |
| **WAG** | Wholesale Advisory Group |