

Shortened gate closure and revised bid and offer provisions

Decision Paper

4 November 2015



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1. The Authority has decided to amend the Code to shorten gate closure to one hour and to revise some bid and offer provisions

1.1 Decision

1.1.1 The Electricity Authority (Authority) has decided to amend Part 1 and Part 13 of the Electricity Industry Participation Code 2010 (Code) to:

Gate closure

- (a) reduce the gate closure period to one hour for participants currently subject to a two hour gate closure period, as follows:
 - (i) grid-connected generators, other than intermittent generators¹
 - (ii) ancillary service agents, other than embedded generators
 - (iii) purchasers submitting dispatch bids
 - (iv) the grid owner
- (b) remove gate closure restrictions on revising non-dispatch bids Intermittent generators
- (c) require persistence-based offers to take account of information about the generator's intentions for generating plant availability
- (d) require a persistence-based offer to be submitted at least once every trading period

Revision provisions for offers, bids, reserve offers, and grid information

- (e) remove the obligation for the grid owner to provide a report to the Authority on any revised grid information submitted after gate closure
- (f) clarify that offer quantities are not to exceed "the quantity of electricity that the generator expects to be able to generate"
- (g) revise the provisions that specify the maximum quantity an offer can contain, and when an offer must be revised, to make it clear that a generator must exercise reasonable care in preparing its offers (eg, if a generator made a mistake in submitting an offer which it later had to revise, the generator may be found in breach for not taking reasonable care)
- (h) reduce and simplify the minimum quantity change that requires an offer to be immediately revised

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Intermittent generators remain largely unaffected by gate closure provisions because they have an obligation to submit persistence-based offers during the last two hours before the trading period.

- (i) require that any change in the offer made after gate closure must change quantities only to the extent necessary to ensure that the offered MW can be delivered and not further
- (j) provide a process for participants to permanently cease providing bids, offers, or reserve offers at a particular location (eg, if a generation plant is being decommissioned)
- (k) remove references to the cancellation of offers, bids, and reserve offers
- (I) define "gate closure period" in part 1 of the Code to simplify the drafting of various provisions in Part 13 of the Code.
- 1.1.2 The Code amendment giving effect to these changes is attached as Appendix A.
- 1.1.3 The Code amendment promotes the efficiency and reliability limbs of the Authority's statutory objective for the long-term benefit of consumers. Efficiency will be promoted by improving the flexibility of generation and instantaneous reserve resources to respond to changing circumstances, while maintaining system security and the limitations on strategic reoffering. Reliability will be promoted by making persistence-based intermittent generation forecasts more robust, and by removing gate closure for non-dispatch bids to allow improved forecasts.
- 1.1.4 By supporting the accuracy of forecast schedules, this Code amendment contributes to the Authority's increased focus on improving the efficiency of price signals.
- 1.1.5 The Code amendment is consistent with the Authority's Code amendment principles because it:
 - (a) is lawful, and promotes the Authority's statutory objective
 - (b) addresses a number of inefficiencies and regulatory failures, including the problem that existing gate closure provisions inefficiently restrict participant flexibility to respond to changing circumstances
 - (c) analysis indicates it will provide a net economic benefit.

1.2 Introduction

1.2.1 On 7 July 2015, the Authority published the *Shortened gate closure and revised bid and offer provisions* consultation paper (consultation paper).²

https://www.ea.govt.nz/development/work-programme/wholesale/bid-and-offer-provisions-of-the-code/consultations/#c15415

- 1.2.2 The consultation paper proposed to amend Part 1 and Part 13 of the Code to:
 - (a) reduce the gate closure period to one hour for most participants
 - (b) remove gate closure restrictions on revising non-dispatch bids
 - (c) remove the grid emergency provisions that prevent a purchaser from revising its nominated non-dispatch bid upwards in a grid emergency to better reflect expected purchases
 - (d) change the requirements in relation to persistence-based offers for intermittent (wind) generators to make them more robust
 - (e) remove the obligation for the grid owner to provide a report to the Authority on any revised grid information submitted after gate closure
 - (f) change various clauses about revising offers, bids, and reserve offers to make the Authority's expectations clear and to ensure the provisions are robust.
- 1.2.3 The consultation paper evaluated four alternative options in addition to the proposal. Options B and C below were alternatives to the proposal described in paragraph 1.2.2(f) above. Option D was an alternative to the proposal to reduce gate closure to one hour for most participants (paragraph 1.2.2(a) above).
 - (a) Option A: the status quo
 - (b) **Option B:** use a subjective structure for revising offers
 - (c) **Option C:** use the structure for revising offers proposed by the Australian Energy Market Commission³
 - (d) **Option D:** reduce gate closure restrictions in an alternative way:
 - (i) retain two hour gate closure, but with more exceptions
 - (ii) move to half-hour gate closure
 - (iii) remove gate closure.

1.3 Key changes from what was proposed in the consultation paper

- 1.3.1 The key changes embodied in the Authority's decision compared with the proposal as set out in the consultation paper are:
 - (a) Clauses 13.99 and 13.100 in the existing Code provide that, in a grid emergency, a purchaser may not generally increase its aggregate bid

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The AEMC's proposal is that participants should not make offers that are "false, misleading, or likely to mislead". Without limiting that provision, an offer would be misleading if, at the time of making it, the participant does not have a genuine intention to honour the offer.

- quantities (unless it has a bona fide physical reason or unless equivalent decreased quantities are also bid in substitution). The consultation paper had proposed to remove these provisions. The Authority has now decided that they should be retained. Refer to section 4.3 below for more explanation.
- (b) A change to the description in clause 13.18A(3) of the information to be used for intermittent generator persistence-based forecasts to deal with the situation where an intermittent generator is coming back from an outage. Refer to section 4.4 below for more explanation.
- (c) Clarifications to clauses relating to the circumstances in which a generator may or must revise its offer during gate closure. Refer to section 4.5 below for more explanation.

2. The Authority considered submissions on the proposed Code amendment

2.1 Submissions received

- 2.1.1 Submissions closed on 19 August 2015. The following made submissions on the proposal:
 - (a) Carter Holt Harvey Pulp and Paper (Carter Holt)
 - (b) Contact Energy Limited (Contact)
 - (c) EnerNOC New Zealand Limited
 - (d) Fonterra Co-operative Group Limited (Fonterra)
 - (e) Genesis Energy Limited
 - (f) Meridian Energy Limited (Meridian)
 - (g) Meteorological Service of New Zealand Limited
 - (h) Mighty River Power Limited (Mighty River)
 - (i) New Zealand Steel Limited (NZ Steel)
 - (j) New Zealand Wind Energy Association (NZWEA)
 - (k) Nova Energy Limited (Nova)
 - (I) Transpower NZ Limited (Transpower)
- 2.1.2 The submissions expressed support for:
 - shortening gate closure to one hour for those participants currently subject to a two hour gate closure period
 - (b) for removing the gate closure restrictions on revising non-dispatch bids
 - (c) changing the requirements in relation to persistence-based offers for intermittent generators
 - (d) changing various clauses about revising offers, bids, and reserve offers to make the Authority's expectations clear and to ensure the provisions are robust.
- 2.1.3 While many submissions recognised that the existing reporting process appeared onerous, several wanted to maintain some reporting and accountability on the grid owner in relation to changes made to grid availability after gate closure.
- 2.1.4 Transpower opposed removing the restriction preventing increases in bid quantities during a grid emergency.

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- 2.1.5 Meridian also sought clarification on some of the proposed provisions relating to persistence offers, revisions during gate closure and block dispatch.
- 2.1.6 Section 3 below outlines the support for the proposed Code amendment, while section 4 discusses the issues raised in submissions.

3. Submissions generally supported the proposed Code amendments

3.1 Gate closure

- 3.1.1 There was strong agreement from submitters that a shorter gate closure would increase the flexibility and efficiency of the electricity sector.

 Submissions from Contact, Meridian, Mighty River, Nova, and NZWEA supported that view. No submissions opposed that view.
- 3.1.2 The consultation paper identified that gate closure is ineffective for non-dispatch bids and hinders accurate forecasting. Support for this was received from Carter Holt, Meridian, NZ Steel, and Transpower. No submissions were opposed.
- 3.1.3 Contact and Meridian also provided numerical examples of the benefits that additional flexibility from a shorter gate closure would provide.
- 3.1.4 The Authority has decided to amend the Code as proposed to:
 - (a) shorten the gate closure to one hour for all participants currently subject to a two hour gate closure period
 - (b) remove the gate closure restrictions for non-dispatch bids.

3.2 Persistence-based offers

- 3.2.1 The consultation paper proposed to amend the requirements on intermittent based forecasts in the last two to make them more robust.
- 3.2.2 Support for this was received from Contact, Meridian, Mighty River, and Nova. No submissions disagreed with the proposal, although NZWEA argued that non-persistence-based forecasts should be able to be used in the last two hours if they are more accurate.
- 3.2.3 Meridian sought guidance on how persistence-based offers should indicate a wind farm returning to service from an outage. This is discussed under section 4.4.
- 3.2.4 The Authority has decided to amend the Code in relation to persistence-based offers as proposed.

3.3 Provisions on revising offers, bids, and reserve offers

3.3.1 The consultation paper identified a range of problems with the re-offer provisions in clauses 13.9, 13.17, 13.18, and 13.19 and proposed a number of amendments.

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- 3.3.2 Support for the proposed amendments was received from Contact, Meridian, Mighty River, and Nova. No submissions disagreed with the proposal.
- 3.3.3 The Authority has decided to amend the Code to clarify the offer, bid, and reserve offer revision provisions as proposed.

4. Issues raised in submissions

4.1.1 This section covers:

- (a) Section 4.2: the monitoring of late grid changes. This addresses the point made in paragraph 2.1.3.
- (b) Section 4.3: the restriction on increasing bid quantities in a grid emergency. This addresses the point made in paragraph 2.1.4
- (c) Section 4.4: wind generator persistence offers when the plant is coming back from an outage. This addresses several points made by Meridian in its submission
- (d) Section 4.5: the structure of provisions relating to revising offer quantities during gate closure. This addresses a point made by Meridian relating to small reductions in offer quantities during gate closure, and also clarifies a further matter identified by the Authority.
- (e) Section 4.6: a suggestion by Meridian to allow flexibility for a block dispatch group when making late reductions in offer quantities.

4.2 Concern that some monitoring of late grid changes should continue

- 4.2.1 Clause 13.34(3) of the Code provides that the grid owner must report to the Authority in writing about any "grid information" (that is, information about the availability and capacity of the grid) that is revised after gate closure. The consultation paper noted that there have been around 500 such reports required per month on average. The consultation paper suggested that this administrative burden is out of proportion with the risk being managed. The Authority proposed to remove this grid owner reporting obligation.
- 4.2.2 Several submissions noted the significant impact that grid information (grid availability) can have on market settlements and the importance to market participants of receiving information about changes as early as possible.
- 4.2.3 While many submissions recognised that the existing reporting processes appeared onerous, most submissions suggested that some sort of monitoring ought to be in place to ensure grid information was being revised as soon as possible.
 - (a) Contact suggested the grid owner should be encouraged to provide as much notice as possible of the intention to return an asset to service earlier or later than expected
 - (b) Fonterra suggested the Authority could improve the efficiency of the reporting process (rather than removing the reporting obligation),

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- perhaps by providing for some exceptions so not all changes have to be reported
- (c) Meridian suggested a requirement on the grid owner to report where a participant requests this, or where the revision is a reduction (c.f. an increase) in grid capacity, or where the revision causes a constraint to bind
- (d) Nova submitted that the Authority could do an analysis of existing reports to see how many are avoidable and how many have a significant market impact.
- 4.2.4 Mighty River was comfortable with the removal of the reporting obligation "as long as there are no market impacts".
- 4.2.5 Transpower's submission made no comment on this issue.

Authority response

- 4.2.6 The Authority has decided to proceed with the proposal to revoke clause 13.34(3) and (4), which contains the reporting requirements on the grid owner in relation to late grid changes.
- 4.2.7 The purpose of the existing reporting regime is to enable an assessment of the grid owner's compliance with clause 13.34(1). That clause provides:

13.34 Changes may be made within 2 hours before trading period

- (1) A grid owner may update the [grid availability and capacity] information... later than 2 hours before the relevant trading period only if—
 - (a) a **bona fide physical reason** necessitates the change; or
 - (b) the system operator issues a formal notice; or
 - (c) an unforeseeable change occurs in the availability of a grid owner's assets, which were the subject of a planned or unplanned outage notified by the grid owner to the system operator.
- 4.2.8 Around 95 percent of late grid changes are made under clause 13.34(1)(c). In order to serve their purpose, these reports would have to provide sufficient information to enable the Authority to assess whether the change was "unforeseeable" to the grid owner. For this assessment to be effective, the Authority would need a detailed understanding of the nature of the planned or unplanned outage, and would have to form a view on what the grid owner could or should have foreseen about the outage prior to gate closure.
- 4.2.9 Shortening gate closure to one hour will reduce the number of these late grid change reports. The Authority's analysis suggests the number of reports may be reduced by up to two thirds. However, the Authority expects there would still be around 100 to 200 such reports each month.

- 4.2.10 The Authority considers it is unrealistic to expect the grid owner to produce that number of reports containing the level of detail necessary to enable a proper assessment of compliance. The Authority also considers that the expense associated with its own assessment of such detailed reports would be out of proportion of the risk being managed.
- 4.2.11 At present the reports tend to contain very short descriptions of the reasons for the late changes. Examples of the reasons given are:
 - (a) "Early finish. Work completed"
 - (b) "Late start. Delayed due to generator fault at [specific node given]"
 - (c) "Late finish. Commissioning not completed".
- 4.2.12 Some reports contain more detail than this but, generally, the Authority considers that the typical level of detail makes them ineffective at achieving their purpose. The Authority also considers that it would be unrealistic to expect the grid owner to provide large numbers of reports that were detailed enough to support an effective assessment of compliance.
- 4.2.13 A number of submitters have suggested amendments that would involve a smaller volume of reports. These suggestions are a useful starting point for considering an appropriate monitoring regime. However, if the Authority were to consider these suggestions further as part of this project, further analysis and consultation would be required which would delay the implementation of the whole project including shortened gate closure. For this reason, the Authority considers that these issues are best addressed in a separate project.
- 4.2.14 In order not to cause undue delay in the existing project, the Authority has considered two options:
 - (a) progressing with the proposal
 - (b) retaining the existing Code provisions.
- 4.2.15 In both cases, the issue would be reviewed in a separate project in future. The Authority considers that the option of progressing with the proposal has net benefits compared with that alternative because there are considerable administrative cost savings for the Authority and for the grid owner. The Authority considers there is little value in continuing to require the existing reports to be produced.
- 4.2.16 The grid owner will continue to self-report any breaches as it is required to do under the current Code. If participants would like an explanation from the grid owner about a particular late grid revision, they are welcome to request that information from the grid owner and/or the Authority. If a participant believes on reasonable grounds that the grid owner has breached clause 13.34(1), the participant may report the alleged breach to

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the Authority. Following such a report, the Authority may appoint an investigator.⁴

4.3 Concern with removing the restriction on increasing bid quantities in a grid emergency

4.3.1 Clause 13.99 in the existing Code provides:

13.99 Effect of grid emergency on total quantities bid Despite clauses 13.6 to 13.27, if the **system operator** has declared a **grid emergency**—

- (a) a purchaser may not increase the aggregate quantity of electricity specified in all of the nominated bids made by the purchaser for the trading periods and GXPs affected by the grid emergency unless the purchaser has a bona fide physical reason that necessitates the increase; and
- (b) the **system operator** must accept any revision made under paragraph (a).
- 4.3.2 Clause 13.100 provides that, despite clause 13.99, nominated bid quantities may be increased if equivalent decreases in other bids are made in substitution.
- 4.3.3 The consultation paper proposed to delete these provisions. This would allow a purchaser to increase a bid quantity during a grid emergency (eg, to signal that the purchaser expected that load would be higher than signalled in the bid).

4.3.4 Transpower submitted:

"We understand that, where purchasers have no actual control on demand, that disallowing upward bid revisions will not prevent demand from increasing. However, where purchasers have a level of control then the disallowance of upward bid revision is a codified security requirement to not increase demand during the grid emergency (and if they do, to have a bona fide reason). We agree that to manage the grid emergency we need the best information but we consider the expectation for that information content is to retain (as is currently the case) the premise that demand should not be increased.

"Grid Emergencies involve a high level of direction from the system operator and removing this clause will increase the scope and complexity of demand information that the SO has to take into account before issuing any directions to manage the emergency. Removing the intent that in a grid emergency demand should not be increased creates grounds for

⁴ Refer to the Electricity Industry (Enforcement) Regulations 2010.

increased risk in system operator decisions and actions to rebalance the system and potential longevity of the emergency situation."

Authority response

- 4.3.5 The Authority has decided to change its proposal and retain the existing clauses 13.99 and 13.100: that is, to retain the existing restriction on revising bid quantities upwards during a grid emergency.
- 4.3.6 The Authority has discussed this issue further with the system operator after receiving its submission. The system operator considers that most purchasers submitting nominated bids understand that they shouldn't increase load during a grid emergency. The system operator considers that clause 13.99 is the only clause in the Code that gives any indication of what purchasers should or should not do during a grid emergency. The system operator was concerned that revoking the clause would signal that load increases during a grid emergency are acceptable.
- 4.3.7 Further consideration could be given to this issue as part of a separate project in the Authority's work programme.

4.4 Clarification of wind generator persistence offers when plant is returning from an outage

4.4.1 The consultation paper proposed the following drafting for clause 13.18A:

13.18A Intermittent generators to provide revised offers

- (1) During the 2 hours immediately preceding the **trading period** to which an **offer** relates, each **intermittent generator** must submit revised **offers** in respect of **MW** offered to the **system operator** at a frequency of at least 1 revised **offer** per **trading period**.
- (2) A revised offer submitted under subclause (1) must be based on a persistence model, unless otherwise agreed with the Authority.
- (3) For the purposes of this clause, a persistence model means a method for producing a forecast **MW** that takes into account only the following factors:
 - (a) actual output from the relevant intermittent generating station at the time the revised offer is submitted; and
 - (b) any expected changes in availability and capability of **generating units** forming part of the relevant **intermittent generating station**.
- 4.4.2 Meridian noted in its response to question 8 in the consultation paper:

"We consider there would be benefit in the Authority developing guidance notes with respect to how a 'persistence forecast' should be applied under 13.18A. For instance, it would be useful to set out how offers should indicate that a wind farm is coming back from outage (0 MW output)."

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- 4.4.3 In addition, Meridian noted in its response to question 17 in the consultation paper:
 - (a) The term 'generating units' may exclude expected changes in availability and capability from other parts of a wind farm (e.g. transformers or transmission infrastructure). The term 'generating plant' (as currently defined in Part 1 of the Code) would be a useful addition.
 - (b) The words "...availability and capability..." should be expanded to read "...settings, availability and capability..."

Authority response

- 4.4.4 The Authority has decided:
 - (a) To change the drafting of clause 13.18A to deal clearly with the situation where an intermittent generator is coming back after an outage.
 - (b) To use the term 'generating plant' as suggested by Meridian.
 - (c) Not to add the term "settings" as suggested by Meridian. The Authority considers that the words "availability and capability" are sufficiently clear and will incorporate information about any changes in settings on generating units.
- 4.4.5 The Authority's drafting of clause 13.18A(3)(a) will be changed to:
 - "(a) if the relevant **intermittent generating station** is generating at the time the revised **offer** is submitted, the actual output from the **intermittent generating station** at that time; and".

4.5 Clarification to the Code provisions relating to revising offer quantities during gate closure

- 4.5.1 Meridian sought clarification on the drafting of the proposed Code amendment relating to revising offer quantities during the gate closure period. Meridian stated that it is possible that a generator may find itself in a position after gate closure where its offer quantity exceeds by less than 5 MW the total quantity that the generator expects to be able to generate.
- 4.5.2 The relevant parts of the Authority's proposal in the consultation paper are contained in the proposed clauses 13.9A, 13.17, 13.18, and 13.19. In summarised form, those provisions provide:

13.9A Offer not to exceed capability

The total MW specified in each offer submitted by a generator must...not exceed the total MW that the generator expects to be able to generate...

13.17 Offers may be revised

. . .

(3) A generator must not revise the MW specified in any price band in an offer during a gate closure period, unless clause 13.18(1), 13.18A, or 13.19 applies.

. . .

13.18 When revised offer to be submitted

- (1) A generator must immediately submit a revised offer to the system operator if the total MW specified in an offer exceeds by more than 5 MW the total MW that the generator expects to be able to generate at the relevant grid injection point for the relevant trading period.
- (2) A generator that submits a revised offer under subclause (1) during a gate closure period must ensure that [the change goes only so far as necessary, and that quantities are removed from the highest-priced offer bands first]

. . .

13.19 When revised offer may be submitted during gate closure period

- A generator may submit a revised offer to the system operator during a gate closure period if—
 - (a) the revision is necessary due to a bona fide physical reason; or
 - (b) the system operator [declares a grid emergency]; or
 - (c) a bona fide physical reason...ceases to exist sooner than was expected at the time it arose...

4.5.3 Meridian submitted:

"Does the Authority intend that a generator will be in breach of clause 13.9A if it learns, during the gate closure period, that it will not be able to generate to its offer, but that the total MW that it is able to generate will only be 4MW or less than its offer? The proposed Code amendments are clear that in this situation the generator must not revise its offer unless clause 13.18(1), 13.18A or 13.19 applies. Assuming none of those clauses apply, does the clear direction not to revise its offer under clause 13.17 excuse what would otherwise be a breach of clause 13.9A? What if the shortfall in generation is 5MW or more and therefore the generator is able to take advantage of clause 13.18(1) and revise its offer? We understand that the Authority intends that in both these situations a generator will be in breach. If so we suggest clause 13.9A is amended by adding 'A generator that revises its offer does not excuse a prior breach of this clause'."

Authority response

4.5.4 The Authority agrees with Meridian that the drafting of these provisions in the proposed Code amendment could be improved to ensure clarity.

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- In addition, the Authority considers it necessary to clarify that clause 13.18(2) should apply to any reduction in an offer quantity during gate closure (not only to changes made under clause 13.18(1)). For example, the Authority considers that clause 13.82(3) should apply to a reduction in an offer quantity made for a bona fide physical reason under clause 13.19(1)(a).
- 4.5.6 The Authority has decided to proceed with an amended drafting as follows:
 - (a) clause 13.18(1A) has been inserted to clarify that offer revisions of 5 MW or less will not be in breach of clause 13.18(1)
 - (b) clause 13.18(1B) has been inserted to clarify that any offer revisions made under clauses 13.18(1) or 13.18(1A) do not relieve the generator of liability for breaches of other provisions of the Code
 - (c) clause 13.19AA has been inserted (the consultation paper proposed a similar provision placed in clause 13.18(2)) to clarify that, if there is any reduction in an offer quantity during gate closure (not only a reduction made in accordance with clause 13.18(1)), the reduction should go only so far as necessary, and the quantities should be removed from the highest-priced offer bands first.
- 4.5.7 The key points of the amended drafting are shown below (refer to appendix A for the full drafting of the Code amendment):

13.9A Offer not to exceed capability

The total MW specified in each offer submitted by a generator must...not exceed the total MW that the generator expects to be able to generate...

13.17 Offers may be revised

. .

(3) A generator must not revise the MW specified in any price band in an offer during a gate closure period, unless clause 13.18(1), 13.18(1A), 13.18A, or 13.19 applies.

. . .

13.18 When revised offer to be submitted

- (1) A generator must immediately submit a revised offer to the system operator if the total MW specified in an offer exceeds by more than 5 MW the total MW that the generator expects to be able to generate at the relevant grid injection point for the relevant trading period.
- (1A) A generator may submit a revised offer to the system operator if the total MW specified in an offer exceeds by 5 MW or less the total MW that the generator expects to be able to generate at the relevant grid injection point for the relevant trading period.
- (1B) The submission of a revised offer under subclause (1) or (1A) does not relieve the generator of liability for breach of any other provision of this Code.

. . .

13.19 When revised offer may be submitted during gate closure period

- A generator may submit a revised offer to the system operator during a gate closure period if—
 - (a) the revision is necessary due to a bona fide physical reason; or
 - (b) the system operator [declares a grid emergency]; or
 - (c) a bona fide physical reason...ceases to exist sooner than was expected at the time it arose...

. . .

13.19AA Limitations on revised offers

A generator that submits a revised offer under clause 13.18(1), 13.18(1A) or 13.19(1) during a gate closure period must ensure that—

- (a) the revised offer only differs from the original offer to the extent necessary to ensure that the MW specified in the revised offer is the MW that the generator expects to be able to generate at the relevant grid injection point for the relevant trading period; and
- (b) the revised offer complies with the following: [the change goes only so far as necessary, and that quantities are removed from the highest-priced offer bands first].

4.6 Clarification of offer revisions within a block dispatch group

4.6.1 Meridian sought clarification about block dispatch. It submitted:

"Paragraph 3.2.14(b) of the consultation paper states: "A planned generation outage finishes earlier than expected. Unless the returning plant is part of a block dispatch group, its operator may not bring it back into service until two hours have elapsed."

"A related footnoted adds: "Even if it is part of a block dispatch group, it cannot be brought back without reducing output elsewhere in the block so that the total MW of the block stays the same."

"Meridian queries whether <u>under current Code provisions</u> this implies that a station could be operated at above its offered capacity provided total block dispatch quantities are met. For instance, imagine three stations (A, B and C) are operating in block dispatch. Each station has a capacity of 150 MW. Station A is on partial outage and operating at 100 MW with the other two stations operating at capacity (meaning the block is dispatched at 400 MW). Maintenance at Station A is completed early, meaning it can return to full capacity, but offers have been locked down for the gate closure period. Would it be possible to increase production at Station A to 150 MW while reducing production at Station B to 100 MW and retaining

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Station C at 150 MW, thereby complying with the block dispatch quantity of 400 MW (but with Station A exceeding its offered quantity of 100 MW)? Put another way, is it acceptable to generate at above the offered quantity of one plant provided total block dispatch quantities are met?"

- 4.6.2 Meridian also queried how the proposed amendment to clause 13.18(2) would apply in the case where an unplanned outage occurred for generating plant that was part of a block dispatch group.
- 4.6.3 The consultation paper proposed the following drafting for clause 13.18(2):

13.18 When revised offer to be submitted

. . .

- (2) A **generator** that submits a revised **offer** under subclause (1) during a **gate closure period** must ensure that—
 - (a) the revised offer only differs from the original offer to the extent necessary to ensure that the MW specified in the revised offer is the MW that the generator expects to be able to generate at the relevant grid injection point for the relevant trading period; and
 - (b) the revised **offer** complies with the following:
 - (i) the reduction in MW specified in the revised offer must be first deducted from the MW offered in the highest price band:
 - (ii) if the reduction in MW exceeds the MW in the highest price band, the remainder must be deducted from the price bands below the highest, in descending order as the MW in each price band is reduced to zero, until all of the reduction is reflected in the revised offer.
- 4.6.4 The Authority discussed this further with Meridian. Meridian queried whether a reduction in capacity at one station in a block dispatch group would have to be matched by reductions in the offered quantity at that station, or whether reductions in offered quantities at other stations in the block dispatch group would be acceptable. Meridian noted that if the intention behind the proposed clause 13.18(2)(b) is to limit any upward effect on price caused by a late reduction in generating capacity, then that intention could be better served by requiring the quantities to be removed first from the highest priced offer bands as measured across the whole block dispatch group.
- 4.6.5 Meridian suggested that clause 13.18(2)(b) be modified by inserting the words "unless otherwise agreed with the Electricity Authority". This would provide flexibility to agree an appropriate approach.

Authority response

- 4.6.6 The Code requires offers to be specific for individual generating stations or individual generating units (clauses 13.10 and 13.11). The block dispatch provisions of the Code are to facilitate the efficient management of water flows between the individual hydro generating stations that make up the block dispatch group (clauses 13.60 and 13.61).
- 4.6.7 In Meridian's example outlined in paragraph 4.6.1 above, a revised offer for Station A would have to be submitted to reflect the early completion of the outage (required by clause 13.18 of the current Code and of the proposed amended Code). The Authority considers that, provided the generator complies with the block dispatch provisions of the Code, redistributing the dispatched generation across Stations A, B, and C ahead of the trading period that the revised offer takes effect would not be in breach of the Code.
- 4.6.8 The Authority has decided not to make the change suggested by Meridian in paragraph 4.6.5. (Note, however, that the provision in question will be moved to clause 13.19AA as discussed in section 4.5.)
- 4.6.9 The proposed amended provision would require the offer *for the plant experiencing the outage* to be revised downwards. It would not allow quantities for other stations in the block dispatch group to be revised downwards in substitution.
- 4.6.10 The Code does not allow other offers within the block dispatch group to be revised downwards in substitution.

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5. The cost-benefit analysis remains unchanged

- 5.1.1 Submitters strongly agreed that the proposal would have positive net benefits. A number of submitters provided indications of the likely benefits they would accrue from the proposed changes, particularly the move to one-hour gate closure. The Authority considers the comments support the cost benefit analysis (CBA) as it was set out in the consultation paper.
- 5.1.2 The Authority is satisfied that the proposal has positive net benefits. The changes that the Authority has made to its proposal as outlined in the consultation paper have no impact on the CBA.
- 5.1.3 The key points from the CBA in the consultation paper were:
 - (a) The costs of implementing one-hour gate closure are expected to be \$1.17 million. Most of these costs (\$1.1 million) are costs incurred by the system operator.
 - (b) The benefits of one-hour gate closure are expected to be larger than the costs. For one-hour gate closure to return a net economic benefit, it would be sufficient for each of the four biggest generators to achieve a productive efficiency gain of just \$30,000 per year. Several examples were provided showing how a generator could achieve an annual gain of that amount.
 - (c) The costs of the other aspects of the proposal are expected to be \$0.184 million.
 - (d) The present value of the benefits of the other aspects of the proposal is expected to be at least \$0.3 million.

Glossary of abbreviations and terms

Act Electricity Industry Act 2010

Authority Electricity Authority

CBA Cost benefit analysis

Code Electricity Industry Participation Code 2010

GXP Grid exit point

MW Megawatt(s)

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Appendix A **Draft Code amendment – strikethrough version**

Tracked changes indicate the changes that will be made by the Code amendment. The consultation version of the proposed Code amendment is in black text, with changes following the June 2015 consultation in red text.

Changes to Part 1

bid,—

- (a) means—
 - (i) a **nominated bid**:
 - (ii) a difference bid; and
- (b) includes a bid revised in accordance with clause 13.19A or 13.19B; but
- (c) excludes a bid cancelled in accordance with clause 13.19A

difference bid means a bid the information that a purchaser submits provides to the system operator under clause 13.7AA to indicate a reasonable estimate of an increase or decrease in the purchaser's usual non-dispatch-capable load purchased at a conforming GXP

gate closure period, in relation to a trading period for which a generator or ancillary service agent has submitted an offer or reserve offer, or for which a dispatchable load purchaser has submitted a nominated dispatch bid, means—

- (a) the **trading period** immediately preceding the **trading period** to which the **offer** or reserve offer relates, for—
 - (i) an **embedded generator**:
 - (ii) an **intermittent generator**:
 - (iii) an ancillary service agent that is also an embedded generator; and
- (b) the 2 trading periods immediately preceding the trading period to which the offer, reserve offer or nominated dispatch bid relates, for—
 - (i) any other **generator**:
 - (ii) any other ancillary service agent:
 - (iii) a dispatchable load purchaser

nominated bid-

- (a) [Revoked]
- (b) [Revoked]
- (c) [Revoked]
- (d) means a bid the information that a purchaser submits provides to the system operator under clause 13.7 to indicate a reasonable estimate of the quantity of
 - (i) electricity that the purchaser will purchase for a dispatch-capable load station at a GXP; or
 - (ii) non-dispatch-capable load that the purchaser will purchase at a non-conforming GXP; and
- (e) includes a deemed **nominated bid** under clause 13.8A **offer** means the information <u>that a **generator** provides</u> <u>submitted</u> to the **system operator** by a **generator** under in accordance with clause 13.6(1) to (3) and includes any revised

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offer that a generator provides made under in accordance with clauses 13.17 to 13.19, but excludes any offer cancelled in accordance with clause 13.17

reserve offer means the information an ancillary service agent <u>provides submits</u> to the system operator under clauses 13.37 to 13.54 specifying the quantity of instantaneous reserve the ancillary service agent is willing and able to provide.—

- (a) including a **reserve offer** that is revised <u>under in accordance with</u> clauses 13.46 <u>or and</u> 13.47; but
- (b) excluding a reserve offer that is cancelled in accordance with clauses 13.46 and 13.47

Changes to Part 13

. . .

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, or cancels an offer; or
 - (b) an **ancillary service agent** submits, <u>or revises</u>, or cancels 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, <u>or</u> revise, <u>or cancel</u> an **offer**, it does so as soon as it can; and

. . .

- (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, <u>or revise</u>, <u>or cancel</u> a **reserve offer**, it does so as soon as it can; and

. . .

13.6 Generators

- (1) Each generator with a point of connection to the grid, and each embedded generator required by the system operator to provide an offer under clause 8.25(5), must—
 - (a) submit to the system operator an offer for each trading period in the schedule period, under which the generator is prepared to sell electricity to the clearing manager; and
 - (b) ensure that the **system operator** receives an **offer** at least 71 **trading periods**before the beginning of the **trading period** to which the **offer** relates.
- (2) Despite subclause (1), a generator must give at least 5 business days' notice in writing to the system operator and the pricing manager before the generator makes an offer for the 1st time in respect of generating plant.
- (3) The notice must state—
 - (a) to which grid injection point the generating plant is connected; and
 - (b) whether the generating plant is an intermittent generating station.
- (4) A generator must comply with any request from the system operator for information concerning generating plant that is the subject of a notice under subclause (2) if the system operator requires the information for the purposes of scheduling and dispatch in accordance with this Code.
- (5) Despite subclause (1), if a **generator** intends to permanently cease to provide **offers** to the **system operator** in respect of **generating plant**, the **generator** must give at least

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<u>5 business days' notice in writing to the system operator, the pricing manager, and the clearing manager.</u>

13.6 Generators

- (1) Each generator (other than an embedded generator submitting an offer in accordance with subclause (2) or an intermittent generator submitting an offer in accordance with subclause (3)) must—
 - (a) submit to the system operator an offer-
 - (i) for each trading period in the schedule period; and
 - (ii) under which the generator is prepared to sell electricity to the clearing manager; and
 - (b) ensure that the system operator receives an offer at least 71 trading periods before the beginning of the trading period to which the offer applies.
- (2) Despite subclause (1), each embedded generator required by the system operator to provide an offer in accordance with clause 8.25(5) (other than an embedded generator who is also an intermittent generator submitting an offer in accordance with subclause (3)), must—
 - (a) submit to the system operator an offer-
 - (i) for each trading period of the schedule period; and
 - (ii) under which the generator is intending to generate electricity; and
 - (b) ensure that the **system operator** receives the **offer** at least 71 **trading periods** before the beginning of the **trading period** to which the **offer** applies.
- (3) Despite subclauses (1) and (2), each intermittent generator with a point of connection to the grid, and each intermittent generator with a point of connection to a local network, required by the system operator to provide an offer under clause 8.25(5), must—
 - (a) submit to the system operator an offer-
 - (i) for each trading period of the schedule period; and
 - (ii) which is based on the **intermittent generator's** forecast of the **electricity** that it expects to be able to generate; and
 - (b) ensure that the **system operator** receives the **offer** at least 71 **trading periods** before the beginning of the **trading period** to which the **offer** applies.
- (4) Despite subclauses (1) to (3), a generator must give not less than 5 business days' notice in writing to the system operator and the pricing manager before the generator makes an offer for the 1st time in respect of a generating plant. The notice must include advice as to which grid injection point the generating plant is connected to and whether the generating plant is an intermittent generating station. The generator must comply with any request the system operator may make for information concerning the generating plant that the system operator may reasonably require for the purposes of scheduling and dispatch in accordance with this Code.

13.7AC Submitting bid for first time

- (1) Despite anything in this Code, a purchaser must give at least 5 business days' notice in writing to the system operator and the clearing manager before the purchaser submits a bid for the first time.
- (2) The **system operator** may request from a **purchaser** information—

- (a) about the purchaser; and
- (b) that the **system operator** requires for the purposes of scheduling and **dispatch** in accordance with this Code.
- (3) A **purchaser** must comply with a request made under subclause (2).
- (4) Despite anything in this Code, if a purchaser intends to permanently cease to provide bids to the system operator, the purchaser must give at least 5 business days' notice in writing to the system operator, the pricing manager, and the clearing manager.

. . .

13.8 Deemed offers

. . .

- (2) A **generator** is deemed to have submitted, for that **trading period**, an **offer** that is the same as the **offer** the **generator** made for the corresponding **trading period** on the current **trading day**, and clause 13.9<u>A(b)</u> applies accordingly.
- (3) A deemed **offer** under subclause (2) applies until the **generator** cancels or revises the **offer** in accordance with clauses 13.17 to 13.19.

13.8A Deemed nominated bids

. . .

(3) A deemed **nominated bid** under subclause (2) applies until the **purchaser** cancels or revises the **nominated bid** in accordance with clause 13.19A.

. .

13.8B Deemed reserve offers

. . .

(3) A deemed **reserve offer** under subclause (2) applies until the **ancillary service agent** cancels or revises the **reserve offer** in accordance with clauses 13.46 to 13.49.

13.9 Information that offers must contain

Each offer submitted by a generator must—

- (a) other than for intermittent generators and co-generators, contain all information required by Form 1 in Schedule 13.1; and
- (b) in relation to the **generating plant** that is the subject of the **offer**, not exceed, for each **trading period**, the **generator's** reasonable estimate of the quantity of **electricity** capable of being supplied at that **grid injection point** by the relevant **generating plant** for the relevant **trading period**; and
- (c) if the **offer** is submitted by an **intermittent generator** for an **intermittent generating station**,—
 - (i) contain the information required by Form 2 in Schedule 13.1; and
 - (ii) have a maximum of 1 price band for each trading period; and
 - (iii) specify a price of either \$0.00 (subject to clause 13.116) or \$0.01 for the price band; and
- (d) if the **offer** is submitted by a **co-generator** for an **industrial co-generating** station.—
 - (i) contain the information required by Form 3 in Schedule 13.1; and
 - (ii) have a maximum of 2 price bands for each trading period; and
 - (iii) specify a price of either \$0.00 (in accordance with clause 13.116) or \$0.01 for the price band.

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13.9A Offer not to exceed capability

The total MW specified in each offer submitted by a generator must, in relation to the generating plant that is the subject of the offer, not exceed the total MW that the generator expects to be able to generate at the relevant grid injection point for the relevant trading period.

. .

13.17 Offers may be revised

- (1) Subject to subclauses (2) to (4), a **generator** may revise an **offer** at any time before the beginning of the **trading period** to which the **offer** relates by submitting a new **offer** to the **system operator**.
- (2) A generator must not revise any of its offer prices during a gate closure period.
- (3) A generator must not revise the MW specified in any price band in an offer during a gate closure period, unless clause 13.18(1), 13.18(1A), 13.18A, or 13.19 applies.
- (4) A generator must not revise any of the following offer parameters during a gate closure period, unless clause 13.19 applies:
 - (a) ramp rates:
 - (b) maximum output (including overload):
 - (c) installed capacity.

13.17 Offers may be revised or cancelled

- (1) Subject to clauses 13.19 and 13.97 to 13.101, each **generator** (other than an **embedded generator** submitting an **offer** in accordance with subclause (2) or an **intermittent generator** submitting an **offer** in accordance with subclause (3)) may
 - (a) revise any of its offer prices or offer quantities, as the case may be, for any trading period by submitting a new offer to the system operator. A revised offer may be made up to 2 hours before the beginning of the trading period in respect of which the offer was made; or
 - (b) cancel any of its **offers** by notice in writing to the **system operator**. Any such cancellation of an **offer** may be made up to 2 hours before the beginning of the **trading period** in respect of which the **offer** was made.
- (2) Despite subclause (1), and subject to clauses 13.19 and 13.97 to 13.101, an embedded generator required to submit an offer in accordance with clause 8.25(5) (other than an embedded generator who is also an intermittent generator submitting an offer in accordance with subclause (3)) must use reasonable endeavours to submit any revised offers at least 2 hours before the beginning of the trading period in respect of which the offer is made, but may—
 - (a) revise any of its offer quantities for any trading period by submitting a new offer to the system operator. Any revised offer may be made up to 30 minutes before the beginning of the trading period in respect of which the offer was made; or
 - (b) cancel any of its **offers** by notice in writing to the **system operator**. Any such cancellation of an **offer** may be made up to 30 minutes before the beginning of the **trading period** in respect of which the **offer** was made.
- (3) Despite subclauses (1) and (2), and subject to clauses 13.19 and 13.97 to 13.101, each **intermittent generator** must submit any revision to the **offer** price at least 2 hours before the beginning of the **trading period** in respect of which the **offer** was made. In addition, the **intermittent generator**—

- (a) must revise the quantity of each offer made under this subclause during the 2 hours immediately before the trading period in respect of which the offer is made, in order to comply with clause 13.9(b). Each revised offer must be based on a persistence model using actual output from the intermittent generating station at the time the revised offer is submitted, unless otherwise agreed with the Authority; and
- (b) may cancel any offer by notice in writing to the system operator. Any such cancellation may be made up to 30 minutes before the beginning of the trading period in respect of which the offer was made.

13.18 When revised offer to be submitted

- (1) A generator must immediately submit a revised offer to the system operator if the total MW specified in an offer exceeds by more than 5 MW the total MW that the generator expects to be able to generate at the relevant grid injection point for the relevant trading period.
- (1A) A generator may submit a revised offer to the system operator if the total MW specified in an offer exceeds by 5 MW or less the total MW that the generator expects to be able to generate at the relevant grid injection point for the relevant trading period.
- (1B) The submission of a revised **offer** under subclause (1) or (1A) does not relieve the **generator** of liability for breach of any other provision of this Code.
- (2) Subclause (1) does not apply—
 - (a) in relation to an **intermittent generator**, during the 2 hours immediately preceding the **trading period** to which an **offer** relates; or
 - (b) in every other case, after the beginning of the **trading period** to which an **offer** relates.

13.18A Intermittent generators to provide revised offers

- (1) During the 2 hours immediately preceding the **trading period** to which an **offer** relates, each **intermittent generator** must submit revised **offers** in respect of **MW** offered to the **system operator** at a frequency of at least 1 revised **offer** per **trading period**.
- (2) A revised **offer** submitted under subclause (1) must be based on a persistence model, unless otherwise agreed with the **Authority**.
- (3) For the purposes of this clause, a persistence model means a method for producing a forecast of the intermittent generator's generation, in MW, that takes into account only the following factors:
 - (a) if the relevant intermittent generating station is generating at the time the revised offer is submitted, the actual output from the intermittent generating station at that time; and
 - (b) any expected changes in availability and capability of generating plant forming part of the relevant intermittent generating station.

13.18 When revised offers must be submitted

- (1) Before the beginning of the trading period to which an offer applies, and despite subclause (2) and clause 13.19, a generator (other than an intermittent generator submitting an offer under clause 13.17(3)) must immediately submit revised offer quantities to the system operator if—
 - (a) [Revoked]

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- (b) in relation to the quantities specified in the last non-response schedule published by the system operator, the ability of a generator's generating plant to generate the quantity scheduled for a trading period at a grid injection point is expected by that generator to change by more than 10 MW or 10% of the quantity scheduled (whichever is smaller); or
- (c) the ability of a **generator** to generate the total quantity offered for a **trading period** at a **grid injection point** is expected by that **generator** to change by more than 10 **MW** or 10% of the total quantity offered by that **generator** (whichever is smaller).
- (1A) Despite subclause (1), a **generator** is not required to submit a revised **offer** quantity if the expected change in the quantity is less than 5 **MW**.
- (2) A generator may not revise the price in its offer later than 2 hours before the relevant trading period in which that price has been offered.

13.19 When revised offer may be submitted during gate closure period

- (1) A generator may submit a revised offer to the system operator during a gate closure period if—
 - (a) the revision is necessary due to a bona fide physical reason; or
 - (b) the system operator issues a formal notice under clause 5 of Technical Code

 B of Schedule 8.3; or
 - (c) a **bona fide physical reason** that made a revision necessary under paragraph
 (a) ceases to exist sooner than was expected at the time it arose, and—
 - (i) the 1st trading period after the original bona fide physical reason ceases to exist is within 24 hours after the circumstances that constituted the original bona fide physical reason arose; and
 - the total change in MW specified in the offer in a trading period that is revised as a result of the bona fide physical reason ceasing to exist is the same or less than the total change in MW specified in the offer that was made for the same trading period as a result of the original bona fide physical reason.
- (2) A generator that submits a revised offer under subclause (1)(c) must do so as soon as possible after the relevant bona fide physical reason ceases to exist.

13.19AA Limitations on revised offers

A generator that submits a revised offer under clause 13.18(1), 13.18(1A) or 13.19(1) during a gate closure period must ensure that—

- (a) the revised **offer** only differs from the original **offer** to the extent necessary to ensure that the **MW** specified in the revised **offer** is the **MW** that the **generator** expects to be able to generate at the relevant **grid injection point** for the relevant **trading period**; and
- (b) the revised **offer** complies with the following:
 - (i) the reduction in **MW** specified in the revised **offer** must be first deducted from the **MW** offered in the highest price band:
 - (ii) if the reduction in **MW** exceeds the **MW** in the highest price band, the remainder must be deducted from the price bands below the highest, in descending order as the **MW** in each price band is reduced to zero, until all of the reduction is reflected in the revised **offer**.

13.19 Offer quantity changes may be made within 2 hours before trading period

- (1) Despite clauses 13.17, 13.18(2), and 13.97 to 13.101, a generator may—
 - (a) cancel or revise an **offer** or submit a new **offer** to the **system operator** within 2 hours, or in the case of an **embedded generator** within 30 minutes, before the relevant **trading period** only if—
 - (i) a bona fide physical reason necessitates the cancellation or revision; or
 - (ii) the system operator issues a formal notice under clause 5 of Technical Code B of Schedule 8.3; or
 - (iii) the generator is an intermittent generator submitting revised offers under clause 13.17; and
 - (b) submit a new or revised offer to the system operator within 2 hours, or in the case of an embedded generator within 30 minutes, before the relevant trading period if—
 - (i) a bona fide physical reason that necessitates a cancellation or revision under paragraph (a)(i) ceases to exist sooner than was expected at the time it arose; and
 - (ii) the 1st trading period after the original bona fide physical reason ceases to exist is within 24 hours of the original bona fide physical reason occurring; and
 - (iii) the total change in quantity in the **offer** in a **trading period** that is revised as a result of the **bona fide physical reason** ceasing to exist is the same or less than the total change in quantity in the **offer** that was made for the same **trading period** as a result of the original **bona fide physical reason**.
- (2) Whether or not the cancellation, revision, or new **offer** was in accordance with this clause must be determined in accordance with clause 13.21(2).

13.19A Bids may be revised or cancelled

- (1) Each **purchaser** may, at any time before the beginning of a **trading period** in respect of which a **bid** is made,—
 - revise any of its bid prices or the MW specified in any price band in a bid quantities for any trading period by submitting a new bid to the system operator; or
 - (aa) revise a nominated bid—
 - (i) from being a **nominated dispatch bid** to being a **nominated non-dispatch bid**; or
 - (ii) from being a **nominated non-dispatch bid** to being a **nominated dispatch bid**; or.
 - (b) cancel any of its bids by notice in writing to the system operator.
- (1A) Despite subclause (1), a dispatchable load purchaser must not do any of the following during a gate closure period:
 - (a) revise the price of a **nominated dispatch bid**:
 - (b) revise the **MW** specified in any price band in a **nominated dispatch bid**, unless subclause (1B) or clause 13.19B applies:
 - (c) revise a nominated non-dispatch bid to being a nominated dispatch bid.
- (1B) A dispatchable load purchaser may revise the MW specified in any price band in a nominated dispatch bid during a gate closure period if—
 - (a) the revision is necessary due to a bona fide physical reason; or

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- (b) the system operator issues a formal notice under clause 5 of Technical Code

 B of Schedule 8.3; or
- (c) a **bona fide physical reason** that made a revision necessary under paragraph
 (a) ceases to exist sooner than was expected at the time it arose; and
 - (i) the 1st **trading period** after the original **bona fide physical reason** ceases to exist is within 24 hours after the circumstances that constituted the original **bona fide physical reason** arose; and
 - (ii) the total change in MW specified in the nominated dispatch bid in a trading period that is revised as a result of the bona fide physical reason ceasing to exist is the same or less than the total change in MW specified in the offer that was made for the same trading period as a result of the original bona fide physical reason.
- (2) Despite subclause (1), a **purchaser** must not do any of the following within the 2 hours before the beginning of the **trading period** in respect of which a **bid** is made:
 - (a) revise the **bid** price:
 - (b) revise the bid quantity:
 - (ba) revise a nominated bid-
 - (i) from being a nominated dispatch bid to being a nominated nondispatch bid; or
 - (ii) from being a nominated non-dispatch bid to being a nominated dispatch bid:
 - (c) cancel the bid.
- (3) Despite subclause (2),—
 - (a) a purchaser may do any of the following within the 2 hours before the beginning of the trading period in respect of which a bid is made, if the purchaser has a bona fide physical reason necessitating the purchaser to do so:
 - (ia) revise a nominated bid-
 - (A) from being a nominated dispatch bid to being a nominated nondispatch bid; or
 - (B) from being a nominated non-dispatch bid to being a nominated dispatch bid:
 - (i) revise its **bid** quantities:
 - (ii) cancel the bid:
 - (b) before the beginning of the trading period to which a nominated bid applies, the purchaser that submitted the nominated bid must immediately submit a revised nominated bid quantity to the system operator if the purchaser expects, or ought reasonably to expect, that the quantity of electricity likely to be purchased by the purchaser at the prices indicated in the nominated bid will,—
 - (i) if the **nominated bid** is a **nominated non-dispatch bid**, differ from the quantity in the **nominated bid** by more than the lesser of—
 - (A) 20MW; and
 - (B) 20% of the nominated bid quantity; or
 - (ii) if the **nominated bid** is a **nominated dispatch bid**, differ from the quantity in the **nominated bid** by more than the lesser of—
 - (A) 10MW; and
 - (B) 10% of the nominated bid quantity; or

- (c) if the system operator declares a grid emergency, a purchaser must comply with clauses 13.99 to 13.100.
- (4) Despite subclause (3)(b), a **purchaser** is not required to submit a revised **nominated bid** quantity, if the expected change in the quantity is less than 5 **MW**.
- (4A) If the system operator declares a grid emergency, a dispatchable load purchaser must comply with clause 13.99A.
- (5) Whether or not the cancellation or revision was in accordance with this clause must be determined in accordance with clause 13.21(2).

13.19B Bids must be revised

- (1) Before the beginning of the trading period to which a nominated bid relates, the purchaser that submitted the nominated bid must immediately submit a revised nominated bid in respect of MW to the system operator if the purchaser expects, or ought reasonably to expect, that the MW likely to be purchased by the purchaser at the prices indicated in the nominated bid will,—
 - (a) if the nominated bid is a nominated non-dispatch bid, differ from the MW specified in the nominated bid by more than the lesser of—
 - (i) 20 **MW**; and
 - (ii) 20% of the **nominated bid MW**; or
 - (b) if the **nominated bid** is a **nominated dispatch bid**, differ from the **MW** specified in the **nominated bid** by more than the lesser of—
 - (i) 10 **MW**; and
 - (ii) 10% of the nominated bid MW.
- (2) Despite subclause (1), a **purchaser** is not required to submit a revised **nominated bid** in respect of **MW**, if the expected change in **MW** is less than 5 **MW**.
- 13.20 System operator notified of revised or cancelled nominated bids or offers in certain circumstances
- (1) Subclause (2) This clause applies if to each a purchaser at a GXP or a or generator that submits a revised nominated bid or offer, or cancels a nominated bid or offer, within during the 15 minutes before the relevant immediately preceding the trading period to which the revised nominated bid or offer relates.
- (2) If this subclause applies, before submitting a A purchaser or generator that submits a revised nominated bid or offer of the type described in subclause (1) revision or cancellation, a purchaser or generator (other than an intermittent generator submitting a revised offer under clause 13.17), must immediately notify the system operator of the revision or cancellation by telephone or electronic means (if the electronic means have been agreed between the system operator and the purchaser or generator before the purchaser or generator notified the revision or cancellation).
- (3) Subclause (2) does not apply to an **intermittent generator** submitting a revised **offer** under clause 13.18A.
- 13.21 Authority notified of revised or cancelled nominated dispatch bid or offer inside during the 2 hour periodgate closure period
- (1) A <u>dispatchable load</u> purchaser or generator (other than an intermittent generator submitting a revised offer under clause 13.17) who cancels a <u>bid</u> or <u>offer</u> or <u>that</u> submits a revises<u>d</u> a <u>nominated dispatch</u> <u>bid</u> or <u>a revised</u> <u>offer</u> to the <u>system</u> operator <u>during</u> a <u>gate closure period</u>, <u>within 2 hours before the relevant trading</u> <u>period</u>, or in the case of an <u>embedded generator</u> within 30 minutes before the

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- relevant **trading period**, must report each cancellation or revision to the **Authority** in writing together with an explanation of the reasons for the cancellation or revision.
- (1A) The <u>dispatchable load</u> purchaser or <u>generator</u> must report the <u>cancellation or</u> revision to the <u>Authority no later than by 1700</u> hours on the 1st <u>business day</u> following the <u>trading day</u> on which the <u>cancellation or</u> revision was made.
- (1B) Subclauses (1) and (1A) do not apply to an **intermittent generator** submitting a revised **offer** under clause 13.18A.
- (2) The **Authority** must consider every report made to it under subclause (1) and determine whether the cancellation or revised **bid** or **offer** made by the **purchaser** or **generator** complied with clause 13.19A (in the case of **bids**) or clause 13.19 (in the case of **offers**) and, if not, any action the **Authority** should take in relation to the non-compliance.

. . .

13.25 Exception for small generation

(1) Despite clause 13.6(1) to (3), a **generator** is not required to submit an **offer** for a **generating station** that is 10 **MW** or smaller and any **electricity** sold to the **clearing manager** from the **generating station** is regarded as **unoffered generation** for the purpose of this Code.

. . .

13.27 System operator to retain bids and offers

The **system operator** must retain, in a form that it considers appropriate, all **bids** and **offers** for **electricity** submitted by **participants** under this subpart, including all revised **bids** and **offers** and all cancelled **bids** and **offers**.

. . .

13.33 Grid owners must submit revised information to system operator

Up to <u>21</u> hours before the beginning of the relevant **trading period**, but subject to any timetable agreed with the **system operator** under clause 3(1) of **Technical Code** A of Schedule 8.3, each **grid owner** must immediately submit revised information to the **system operator** if there has been or is likely to be—

. . .

13.34 Changes may be made within 21 hours before trading period

(1) A grid owner may update the information submitted under clause 13.33 later than 21 hours before the relevant trading period only if—

- (2) If a grid owner has sent revised information to the system operator under subclause (1) later than 15 minutes before the relevant trading period, the grid owner must also immediately notify the system operator of the revised information by telephone or by such other mechanism as may be agreed from time to time in writing between grid owners and the system operator.
- (3) A grid owner who submits revised information to the system operator later than 2 hours before the relevant trading period must report each revision to the Authority in writing together with an explanation of the reasons for the revision. The grid owner must report each revision to the Authority by 1700 hours on the 1st business day following the trading day on which the revision was made.
- (4) The **Authority** must consider every report made to it under subclause (3) and assess whether the revision made by the **grid owner** complied with subclause (1) and if not,

any action the Authority should take in relation to the non-compliance.

...

13.44How quantity is to be specified in reserve offers

For each price band, a **reserve offer** must specify the quantity of **instantaneous reserve** offered to respond as **fast instantaneous reserves** or **sustained instantaneous reserves** as a proportion of **electricity** output or consumption up to a specified maximum quantity or as a quantity available to be interrupted, and must be expressed in **MW** to not more than 3 decimal places. The minimum quantity that may be offered in a price band for a trading period is 0.000 **MW**.

13.45 Reserve offers revised if energy offers revised

Subject to clause 13.46(1) and (2) Aan ancillary service agent whothat has made a reserve offer must revise or cancel the reserve offer if it has, in accordance with clauses 13.6 to 13.27, revised or cancelled the offer made in respect of the equivalent item of generating plant.

13.46 Reserve offers may be revised or cancelled

- (1) An ancillary service agent (other than an ancillary service agent who is an embedded generator) may—
 - (a) revise its reserve offer prices or its reserve offer quantities, as the case may be, for any trading period by submitting a new reserve offer to the system operator. A revised reserve offer may be made up to 2 hours before the beginning of the trading period in respect of which the reserve offer is made; or
 - (b) cancel a **reserve offer** by notifying the **system operator**. Any such cancellation may be made up to 2 hours before the beginning of the **trading period** in respect of which the **reserve offer** was made.
- (1) Subject to subclauses (1A) and (1B), an **ancillary service agent** may revise a **reserve**offer at any time before the beginning of the **trading period** in respect of which the reserve offer is made by submitting a new reserve offer to the system operator.
- (1A) An ancillary service agent may not revise its reserve offer prices during a gate closure period.
- (1B) An **ancillary service agent** may not revise the **MW** specified in any price band in a reserve offer during a **gate closure period** unless subclause (3) or clause 13.47 applies.
- (2) Despite subclause (1), and subject to clauses 13.47 and 13.97 to 13.101, an ancillary service agent who revises a reserve offer associated with an embedded generating station must use reasonable endeavours to submit the revised reserve offer at least 2 hours before the beginning of the trading period in respect of which the reserve offer is made, and may—
 - (a) revise any of its reserve offer quantities for any trading period by submitting a new reserve offer to the system operator. A revised reserve offer may be made up to 30 minutes before the beginning of the trading period in respect of which the reserve offer was made; or
 - (b) cancel any of its **reserve offers** by notice in writing to the **system operator**. A cancellation of a **reserve offer** may be made up to 30 minutes before the beginning of the **trading period** in respect of which the **reserve offer** was made.
- (2) An ancillary service agent that revises a reserve offer for an embedded generating station must use reasonable endeavours to submit the reserve offer at least 1 hour

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- before the beginning of the **trading period** in respect of which the **reserve offer** is made.
- (3) Before the beginning of the **trading period** to which the **reserve offer** applies, and despite-subclause (4) and clauses 13.47 and 13.97 to 13.101, an **ancillary service agent** must immediately submit <u>a</u> revised **reserve offer** in respect of **MW** offered quantities to the **system operator** if—
 - (a) the <u>MWquantities</u> specified in <u>any price band in</u> the <u>reserve offer</u> no longer represents a reasonable estimate of the quantity of instantaneous reserve available from the <u>ancillary service agent</u> at the <u>grid injection point</u>, <u>grid exit point</u> or <u>interruptible load group GXP</u>; or
 - (b) the relevant <u>MWquantities</u> specified in the non-response schedule most recently published by the system operator are is not likely to be achieved by the ancillary service agent at the relevant grid injection point, grid exit point or interruptible load group GXP.
- (4) An **ancillary service agent** may not revise the price for its **reserve offer** later than 2 hours before the beginning of the **trading period** in which that price has been **offered**.
- 13.47 Quantity <u>MW</u> changes may be made within 2 hours before trading period <u>during</u> gate closure period
- (1) Despite clauses 13.46 and 13.97 to 13.101, aAn ancillary service agent may—
 - (a) cancel or revise a reserve offer during a gate closure period or submit a new reserve offer to the system operator later than 2 hours, or in the case of a reserve offer associated with an embedded generating station later than 30 minutes, before the trading period in respect of which the reserve offer is made only if—
 - (ia) the revision is necessary due to a bona fide physical reason necessitates the cancellation or revision; or
 - (iib) the **system operator** issues a **formal notice** under clause 5 of **Technical Code** B of Schedule 8.3; or
 - (b) submit a reserve offer or revise a reserve offer to the system operator later than 2 hours, or in the case of a reserve offer associated with an embedded generating station later than 30 minutes, before the trading period in respect of which the reserve offer is made if—
 - (ic) a **bona fide physical reason** that <u>made a revision necessary necessitates</u> a cancellation or revision under paragraph (a)(i) ceases to exist sooner than was expected at the time it arose; and
 - (ii) the 1st **trading period** after the original **bona fide physical reason** ceases to exist is within 24 hours of after the circumstances that constituted the original **bona fide physical reason** occurringarose; and
 - (iii) the total change in <u>MW</u> specified in quantity for the reserve offer in a trading period that is revised as a result of the bona fide physical reason ceasing to exist is the same or less than the total change in <u>MW</u> specified in quantity for the reserve offer that was made for the same trading period as a result of the original bona fide physical reason.

- (2) Whether or not the cancellation, revision or new submission was in accordance with this clause (including, if applicable, whether it was necessitated by a **bona fide physical reason**) must be determined in accordance with clause 13.50(2).
- 13.48 System operator notified of revised reserve offers in certain circumstances
- (1) This clause applies to each ancillary service agent that submits a revised reserve offer during the 15 minutes immediately preceding the trading period to which the revised reserve offer relates.
- (2) If a cancellation, revision or new submission of a reserve offer is sent to the system operator under clause 13.47 and the cancellation, revision or new submission is submitted later than 15 minutes before the relevant trading period, before sending that cancellation, revision or new submission the ancillary service agent must immediately notify the system operator of the cancellation, revision or new submission by telephone or electronic means (if electronic means have been agreed between the system operator and the ancillary service agent before the ancillary service agent notifying the system operator of the cancellation, revision or new submission).

13.49 Authority notified of revised reserve offer inside 2 hour period during gate closure period

- An ancillary service agent that who cancels a reserve offer or submits a new or revised reserve offer to the system operator during a gate closure period later than 2 hours, or in the case of a reserve offer associated with an embedded generating station 30 minutes, before the trading period in respect of which the reserve offer is made must report each cancellation, revision or new submission to the Authority in writing together with an explanation of the reasons for the cancellation, revision or new submission.
- <u>(2)</u> The **ancillary service agent** must report a cancellation, revision or new submission to the **Authority** <u>no later than</u>by 1700 hours on the 1st **business day** following the **trading day** on which the cancellation, revision or new submission was made.

13.50 System operator to advise Authority of cancellation or revision of reserve offers

- (1) The system operator must advise the Authority of any cancellation or revision of the availability of reserves that are provided under ancillary services contracts not covered by clauses 13.37 to 13.54.
- (1A) The **system operator** must advise the **Authority** of a cancellation or revision <u>no later</u> thanby 1700 hours on the 1st **business day** following the **trading day** on which the cancellation or revision was made.
- (2) The **Authority** must consider every report made to it under clause 13.49 or subclause (1) and assess whether the cancellation, revision or new submission made by the **ancillary service agent** complied with clause 13.47 and if not, any action the **Authority** should take in relation to the non-compliance.

13.54 System operator to retain reserve offers

The **system operator** must retain, in a form that it considers appropriate, all **reserve offers** submitted by all **ancillary service agents** in accordance with this subpart, including all revised **reserve offers** and all cancelled **reserve offers**.

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13.82 Dispatch instructions to be complied with

...

(2) Each **participant** to which this clause applies must comply with a **dispatch instruction** properly issued by the **system operator** under clause 13.72 unless,—

. .

- (d) the **participant** is an **intermittent generator** that has complied with clause 13.17 and clause 13.18A, and the **system operator** has not advised that there is—
 - (i) a **grid emergency**; or
 - (ii) a system constraint that directly affects the **intermittent generator**; or

. .

13.97 Grid emergency situations

- (1) The **system operator** may, at any time, declare a **grid emergency** in accordance with **Technical Code** B of Schedule 8.3.
- (2) Despite clauses 13.6 to 13.27 <u>and clauses 13.37 to 13.54</u>, if the **system operator** has declared a **grid emergency**,—
 - (a) a generator, other than an intermittent generator, may not reduce the aggregate quantity of electricity MW specified in all any of the offers made by the generator for the trading periods and grid injection points affected by the grid emergency, unless the generator has a bona fide physical reason that necessitates the reduction makes the reduction necessary; and
 - (b) an **ancillary service agent** may not reduce the aggregate quantity of instantaneous reserve specified in all <u>any</u> of the reserve offers made by the ancillary service agent for the trading periods and points of connection with the grid affected by the grid emergency, unless the ancillary service agent has a bona fide physical reason that necessitates the reduction makes the reduction necessary; and
 - (c) the **system operator** must accept any reduction made under paragraphs (a) or (b).

13.98 Generators and ancillary service agents may change other parameters Despite clause 13.97(2), during a **grid emergency**,—

- (a) a **generator** may reduce the <u>MW specified in any price bandquantities of</u>

 electricity offered in respect of certain **generating plant**, if equivalent increased <u>MW is quantities are</u>, in substitution, offered for other items of generating plant owned or operated by that **generator** at **grid injection points** in the electrical or geographical region affected as notified by the **system**operator under clause 5(1) of **Technical Code** of in Schedule 8.3; and
- (b) an ancillary service agent may reduce the quantities of instantaneous reserves offered, if equivalent increased instantaneous reserves quantities are, in substitution, offered by that ancillary service agent at points of connection with the grid in the electrical or geographical region affected as notified by the system operator under clause 5(1) of Technical Code B of Schedule 8.3; and
- (c) despite clauses 13.6 to 13.27, a generator may—
 - submit revised offers in respect of generating plant already subject to an offer before the grid emergency, so that the total <u>MW-quantity</u> offered by

- the **generator** from the **generating plant** for that **trading period** is increased; and
- (ii) submit new **offers** in respect of a **generating plant** not subject to an **offer** before the **grid emergency**; and
- (d) despite clause 13.1817(2), a generator may submit a new price band or bands for new offers or revised offers in respect of the increased MW quantity made under paragraph (c), but may not revise the price band or bands in respect of the MW quantity of electricity offered before the notice of the grid emergency; and
- (e) despite clauses 13.37 to 13.54, an ancillary service agent may—
 - (i) submit revised reserve offers in respect of any instantaneous reserve already subject to a reserve offer before the grid emergency so that the total quantity of instantaneous reserve offered by the ancillary service agent for that trading period is increased; and
 - (ii) submit new **reserve offers** in respect of any **instantaneous reserve** not subject to a **reserve offer** before the **grid emergency**; and
- (f) despite clause 13.46(4<u>1A</u>), an ancillary service agent may submit a new price band or bands for new reserve offers or revised reserve offers in respect of the increased <u>instantaneous reserve</u> quantity made under paragraph (e), but may not revise the type of instantaneous reserve or the price band or bands in respect of the quantity of instantaneous reserve offered before the notice of the grid emergency.

13.99 Effect of grid emergency on total quantities bid

Despite clauses <u>13.19A</u>13.6 to 13.27, if the **system operator** has declared a **grid emergency**—

- a purchaser may not increase the aggregate quantity of electricity specified in all of the nominated bids made by the purchaser for the trading periods and GXPs affected by the grid emergency unless the purchaser has a bona fide physical reason that necessitates the increase; and
- (b) the **system operator** must accept any revision made under paragraph (a).

13.100 Purchasers may change other parameters

Despite clause 13.99, during a grid emergency, a purchaser may—

- (a) increase a nominated bid's quantities, or submit nominated bids at GXPs that were not subject to nominated bids before the grid emergency, if equivalent decreased quantities are, in substitution, bid for GXPs in the affected electrical or geographical region, as specified in the formal notice issued by the system operator, which were the subject of nominated bids made by the purchaser; and
- (b) decrease a **nominated bid's** quantities.

13.101 Reporting requirements in respect of grid emergencies

- (1) If the system operator declares a grid emergency,—
 - (a) the system operator must, within 12 hours of the conclusion of the grid emergency, provide a written report to the Authority setting out the basis on which the decision to declare the grid emergency was made. The Authority must publish this report through the information system; and

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- (b) a generator who that reduced the MW specified in any price band aggregate quantity of electricity specified in any offers, and an ancillary service agent who that reduced the instantaneous reserve specified in any reserve offers, made by that person in respect of the point of connection with the grid and trading periods affected by the grid emergency must report the reduction to the Authority in writing together with details of the bona fide physical reason for the reduction claimed by the generator or ancillary service agent. A reduction must be reported to the Authority by 1700 hours on the 1stfirst business day after the trading day on which the reduction was made; and.
- (c) a purchaser who increased the aggregate quantity of electricity specified in nominated bids made by the purchaser in respect of the non-conforming GXPs and trading periods affected by the grid emergency must report the increase to the Authority in writing together with details of the bona fide physical reason for the increase claimed by the purchaser under clause 13.99(a). An increase must be reported to the Authority by 1700 hours on the first business day after the trading day on which the increase was made.
- (2) The Authority must consider each report made to it under subclause (1)(b) and (1)(c) and assess whether the reduced offer made by the generator, the reduced reserve offer made by the ancillary service agent, or the increased bid made by the purchaser, as the case may be, was necessitated by a bona fide physical reason, and whether the purchaser, generator or ancillary service agent complied with clauses 13.97(2) or 13.99 as the case may be, and if not, any action the Authority should take in relation to the non-compliance.

. . .