

BESS Wholesale market arrangements for battery energy storage systems

Code amendment consultation paper

19 May 2026

Executive summary

The Electricity Authority Te Mana Hiko (Authority) is seeking feedback on a proposal to amend the Electricity Industry Participation Code (Code) to improve wholesale market operations for utility-scale battery energy storage systems (BESSs).¹ Improved market arrangements for BESSs could better support an efficient market and a stable and resilient power system and promote a more secure and affordable electricity supply for New Zealanders.

BESSs do not generate electricity, but they can move generation in time by charging at one time and discharging later. We expect BESSs will play an important role in the power system to balance the increase in variable renewable generation, such as solar and wind farms. BESSs can provide intra-day ‘firming’ by charging when the wind is blowing and the sun is shining and releasing this energy back into the system when electricity supply is more constrained.

BESSs are a relatively new type of system asset with unique characteristics. With three utility-scale BESSs currently connected to the power system, one being commissioned this year, and many more planned, it is important we act now to ensure market arrangements are fit for purpose. Our proposals are pro-competitive improvements to existing arrangements rather than fundamental reforms, but we nevertheless expect these changes would help support efficient investment and operation of BESSs as the market develops.

This paper accompanies the ‘*Common quality and wholesale market arrangements for BESS and BESS-hybrid stations – Issues and options consultation*’ paper. The two papers have been published together for feedback to present a clearer, more complete view of the Authority’s work on arrangements for BESSs and BESS-hybrid stations.

We consulted on issues and options

We consulted on [issues and options](#) late in 2025. Submissions have helped us to further develop and assess our proposals. At a high-level, our proposals remain largely the same with two exceptions:

1. **We are no longer proposing to change existing financial compensation rules for BESSs.**² We consider financial compensation for flexible plant is best addressed as part of wider work on managing variability in the power system.
2. **We are proposing to accelerate work to investigate reducing the gate closure period for BESSs.**³ This responds to the majority view from stakeholders that gate closure should be reduced for BESSs. Reducing the gate closure period would enable BESS owners to react to more up to date information. While it would enable more efficient use of BESSs, it could come with a greater risk of disruption to consumers’ electricity supply. A thorough investigation is needed before any change is proposed.

¹ Utility-scale BESSs are large scale installations that connect directly to high-voltage networks. This excludes, for example, smaller BESSs connected to households or small businesses which are typically used for backup power or to store roof-top solar generation for self-consumption.

² In our [issues and options paper](#) (section 7) we had proposed to remove constrained off payments when BESSs are charging.

³ Bids and offers have to be finalised at gate closure (1 hour before the trading period).

In our [issues and options paper](#), we suggested a reassessment of reducing gate closure once the System Operator had completed a project to improve its ability to manage uncertainty in the power system. We now consider it would be appropriate to further investigate the system risks, costs, and benefits of reducing gate closure before the System Operator completes its project. This may include reduced gate closure trials to enable the System Operator to better understand potential risks and opportunities.

We are now consulting on Code amendment proposals and associated software upgrades

We propose to implement the changes in two phases. This is because the software upgrades required to fully implement our proposals would take time to deliver. A phased approach would allow us to deliver benefits sooner while software changes are developed. This early phase includes changes that would remain in place in the long term, as well as some interim measures that would be replaced once the full solution is ready.

Noting the broad support for the software-based solution proposed in the [issues and options paper](#), we have also made an in-principle decision to instruct the System Operator to begin software design in parallel with the Authority's Code change process. This means that, if the Authority decides to proceed with the proposed Code amendment, the design work for the software upgrades will already be underway, allowing us to speed up implementation. However, this does not pre-determine the Authority's decision. The proposed Code amendment will only be made if the Authority decides to adopt it after considering submissions on this paper.

Our proposal for early implementation

BESSs would be required to be dispatchable when charging. BESSs are currently required to be dispatchable while discharging but not while charging. We consider they should be dispatchable across their full operational range as they are highly controllable assets. This would enable the System Operator to dispatch BESSs in a manner that better supports a stable and resilient power system.

Our interim proposal for early implementation

BESS traders would be able to trade based on their expected capability and update trade⁴ quantities after gate closure if expected capability changes. Because BESSs have short storage, their capability to charge or discharge can change quickly as storage levels change. The existing arrangements may lead to conservative trading, as BESS owners seek to account for or protect against all possible dispatch outcomes which may arise after trades are finalised at gate closure. Our interim proposal would reduce the need for conservative trading and enable more efficient use of BESSs.

Our longer-term proposal for implementation by the end of 2027

BESS traders would be able to trade their full capacity.⁵ State of charge constraints in the dispatch software would limit consumption and generation to what is achievable given the level of stored energy in the battery. Like the interim proposal, this approach would enable more efficient use of BESSs. However, it would also provide the System

⁴ 'Trade' means offers and bids in this paper.

⁵ I.e., the maximum amount of energy a BESS can store or discharge.

Operator with greater visibility of likely BESS operation. This would help the System Operator maintain a stable and resilient power system as more BESSs enter the system.

BESS traders would submit bids to charge and offers to discharge using a single trade form and receive a single dispatch for their system. This recognises BESSs as single entities that can both generate and consume. This would simplify the System Operator's ability to coordinate the power system and upgrade its software to accommodate BESS participation in ancillary services, helping to support a stable and resilient power system.

These changes would help ensure a secure and affordable supply of electricity to consumers

Our proposal would support:

- affordable electricity by enabling efficient use of BESSs
- a secure supply of electricity by promoting a stable and resilient power system
- efficient investment in BESSs by reducing barriers to entry and enabling greater financial reward through more efficient use of BESSs. This would lead to a more affordable and secure supply of electricity in the long-run as more BESSs help to balance an increasingly variable power system.

Feedback on the Code amendment proposals is due by 30 June 2026

We welcome feedback on this Code consultation paper by **5pm, 30 June 2026**. Please use "Code amendment consultation – BESS market arrangements" in the subject line in your email to OperationsConsult@ea.govt.nz. We will consider all submissions before deciding whether to progress the proposed Code amendment in a decision paper, planned for around August 2026.

Recognising the technical nature of this material, we have allowed for a 6-week consultation period. During this time, we will be available to hold individual briefings with interested stakeholders. If this would be useful for you, please let us know by **5pm, 29 May 2026** and include any topics you would like covered.

Separately, during this consultation period, we will be available to hold individual briefings with interested stakeholders. If you are interested, please let us know by **5pm, 23 June 2026**.

To express your interest in either or both options you can contact us at OperationsConsult@ea.govt.nz with "BESS EOI" in the subject line.

Next steps beyond this consultation

If the Code amendment proceeds, we expect our early and interim proposal to be in place in September 2026, and our longer-term proposal in place by the end of 2027.

Contents

Executive summary	2
1 Purpose of this paper	7
What this consultation is about.....	7
2 Context for this work	10
Our immediate focus is on market arrangements for utility-scale BESSs	10
BESSs are a growing technology that will support the power system.....	10
3 We consulted on issues and options	13
Unlocking the benefits of the unique characteristics of BESSs	13
Summary of Code amendment proposal.....	15
We are proposing new definitions for BESSs.....	16
Timing of changes and further work	17
4 Issue 1: Dispatch requirements for BESSs when charging	19
Issues with the existing arrangements	19
Preferred option: BESSs should be required to be dispatchable at all times	19
Submissions and responses	19
We propose to amend the Code to make BESSs dispatchable	22
5 Issue 2: Bid and offer forms for BESS	24
Issues with the existing arrangements	24
Preferred option: a single trade form and dispatch	25
Submissions and responses	25
The System Operator will address physically impossible dispatch	28
We propose to amend the Code to implement single trade forms and single dispatch	28
6 Issue 3: gate closure arrangements for BESS	30
Issues with the existing arrangements	30
Preferred option: state of charge constraints with full capacity trading	31
Submissions and responses	33
Additional considerations requiring updates to our proposed solution	44
We propose to amend the Code to align gate closure arrangements, introduce state of charge constraints and enable full capacity trading	48
We propose to amend the Code to give effect to an interim solution.....	59
7 Issue 4: Constrained off payments	67
Issues with the existing arrangements	67
Preferred option: BESSs should not receive constrained off compensation	67
Submissions and responses	67

We are not proposing to amend the Code	70
8 Changes to existing Code drafting	71
9 Regulatory Statement for the proposed Code amendment	72
Objectives of the proposed amendment.....	72
The proposed amendment's benefits are expected to outweigh the costs	72
We have identified other means for addressing the objectives	75
The proposed amendment is preferred to other options	76
The proposed amendment complies with section 32(1) of the Act.....	79
The Authority has given regard to the Code amendment principles	79
10 Next steps	80
Appendix A Proposed Code amendment	81
Appendix B Format for submissions	82

1 Purpose of this paper

What this consultation is about

- 1.1 The Electricity Authority Te Mana Hiko (Authority) is seeking your feedback on proposed amendments to the Electricity Industry Participation Code 2010 (Code) related to wholesale market arrangements for utility-scale⁶ battery energy storage systems (BESSs). This Code amendment consultation builds on the [issues and options](#) paper we consulted on in November 2025.
- 1.2 BESSs can play a critical role in maintaining security and resilience, especially as New Zealand transitions to a more variable power system. They can help balance intermittent generation from solar and wind by storing electricity for use at times when there is less supply, as well as helping to support efficient investment, and reduce electricity prices for all consumers. To unlock these benefits, regulatory settings governing BESSs must be fit for purpose.
- 1.3 We are proposing a Code amendment, and associated software upgrades, to:
 - (a) require BESSs to be dispatchable when charging
 - (b) move to a single bid and offer form, and a single reserve offer form (but with separate sections for generation reserve and interruptible load)⁷ for BESSs
 - (c) allow full capacity trading for BESSs with state of charge constraints and one hour gate closure. State of charge constraints would ensure dispatched quantities remain feasible, allowing BESS owners to trade their full capacity
 - (d) as an interim arrangement, allow BESS owners to trade their expected capability and revise trade quantities after gate closure if expected capability changes.
- 1.4 Software upgrades would be needed to implement some of the above, if the Authority decides to make the Code amendment as proposed.
- 1.5 Sections 4 to 7 of this paper outline details of the proposed Code amendment while section 8 presents a regulatory statement for the proposal. The regulatory statement assesses the proposal against the requirements of section 32(1) of the Electricity Industry Act 2010 (Act). It identifies the proposed amendment's objectives, evaluates the anticipated costs and benefits, and evaluates alternative means of achieving the objectives.
- 1.6 We have assessed the proposal against the Authority's main objective under section 15(1) of the Act, which is to promote competition in, reliable supply by, and the efficient operation of, the electricity industry for the long-term benefit of consumers.
- 1.7 Alongside this paper, we are also consulting on issues and options related to:
 - (a) Part 13 trading arrangements for BESSs which are co-located with and connected to electricity generation (BESS-hybrids), and

⁶ Utility-scale BESSs are large scale installations that connect directly to high-voltage networks. This excludes, for example, smaller BESSs connected to households or small businesses which are typically used for backup power or to store roof-top solar generation for self-consumption.

⁷ Generation reserve and interruptible load are types of instantaneous reserve. Generation reserve is generation capacity held in reserve, while interruptible load is consumption that can be reduced, to help maintain the supply-demand balance following a sudden and unexpected loss of supply.

- (b) Part 8 common quality requirements for BESS-hybrids and idle BESSs.
- 1.8 We encourage interested parties to consider this paper first before responding to the higher-level issues and options for BESS-hybrids.

How you can inform our thinking

Submissions can be made using our template

- 1.9 We prefer to receive submissions in electronic format (Microsoft Word) using the template in Appendix B. Submissions in electronic form should be emailed to OperationsConsult@ea.govt.nz with “Code amendment consultation – BESS market arrangements” in the subject line.
- 1.10 If you cannot send your submission electronically, please contact the Authority OperationsConsult@ea.govt.nz or 04 460 8860 to discuss alternative arrangements.
- 1.11 To express your interest in an individual briefing or webinar, you can contact us at OperationsConsult@ea.govt.nz with “BESS EOI” in the subject line.

Your submission will be published, may be shared with other organisations, and can be requested under the Official Information Act

- 1.12 Please note the Authority intends to publish all submissions it receives. If you consider that the Authority should not publish any part of your submission, please:
 - (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 the Authority can publish (if we agree not to publish your full submission).
- 1.13 If you indicate part of your submission should not be published, the Authority will discuss this with you before deciding whether to not publish that part of your submission.
- 1.14 However, please note that all submissions received by the Authority, including any parts that the Authority does not publish, may be requested under the Official Information Act 1982. This means the Authority would be required to release material not published unless good reason existed under the Official Information Act to withhold it. The Authority would normally consult with you before releasing any material that you said should not be published.
- 1.15 In addition, please note that the Authority may share submissions or other information, including parts of submissions not published, with another public service agency, statutory entity, the gas industry body or an overseas regulator in accordance with section 47A of the Electricity Industry Act 2010. The Authority would only do so if the submissions or other information could assist that organisation in the performance of its functions, and if we are satisfied that there are appropriate protections in place for maintaining the confidentiality of anything provided (including information that is personal within the meaning of the Privacy Act 2020).

Feedback on the proposals is due by 5pm 30 June 2026

- 1.16 Please deliver your submission by **5pm on 30 June 2026**.
- 1.17 Authority staff will acknowledge receipt of all submissions electronically. Please contact the Authority at OperationsConsult@ea.govt.nz or 04 460 8860 if you do not receive electronic acknowledgement of your submission within two business days.

2 Context for this work

- 2.1 This paper follows on from an [issues and options consultation](#), further developing our preferred options and drafting a Code amendment proposal.

Our immediate focus is on market arrangements for utility-scale BESSs

- 2.2 Our Code amendment proposal focuses on improvements that address what we believe is an immediate need to develop appropriate arrangements for the utility-scale and stand-alone BESSs that will be operating in the power system over the next few years.
- 2.3 Our companion paper, *Common quality and wholesale market arrangements for BESS and BESS-hybrid stations – Issues and options consultation*, builds on this paper by considering market arrangements for BESS-hybrids. It responds to feedback from several stakeholders that there is value in considering arrangements for BESS-hybrids alongside those for stand-alone BESSs. The companion paper also considers common quality issues for both BESSs and BESS-hybrids.
- 2.4 This paper does not consider the option of five-minute settlement. Changes to settlement intervals are not limited to BESSs and would impact on all participants. Five-minute settlement would be a material change to the market and would take some time to implement.⁸ The Authority considers further analysis of this issue would be required before any changes to settlement intervals could be proposed.
- 2.5 We are consulting on wholesale market arrangements for BESSs because they:
- (a) are a new and growing technology that will play an important role in balancing variable generation,
 - (b) have unique characteristics and current market arrangements may not be the most suitable, and
 - (c) are able to provide significant benefits to consumers.

BESSs are a growing technology that will support the power system

- 2.6 BESSs are highly controllable assets that charge batteries from the power system to discharge at a later time. They can provide various functions to support a stable and resilient power system.

⁸ See the discussion paper on the costs and benefits of moving to a five-minute settlement period published alongside this paper.

Box 1: Understanding BESS technology

BESSs charge by consuming electricity from the power system. The electricity is converted into electro-chemical energy for storage. This enables BESSs to generate electricity by discharging back into the power system at a later time.

There are two parameters that describe the capacity of a BESS:

- **energy capacity** (MWh): how much total electricity it can store and deliver over time
- **power capacity** (MW): the maximum amount of power it can deliver or absorb at any point in time.

For example, a 100MW/200MWh BESS has a power capacity of 100MW. This means that it can:

- charge from empty (0MWh) to full (200MWh) by consuming electricity at its power capacity for two hours.
- discharge from full (200MWh) to empty (0MWh) by generating electricity at its power capacity for two hours.

The **state of charge (SoC)** is the amount of energy left in the battery. Comparing SoC to its maximum and minimum storage limits tells us how much power the battery can still provide before it needs to charge again, and how much more it can charge before it is full.

- 2.7 There are four BESSs currently operating or being commissioned in the New Zealand wholesale market:
- (a) WEL Network's⁹ 35MW/35MWh BESS at Rotohiko, near Huntly power station, commissioned in 2023. It is New Zealand's first utility-scale battery
 - (b) Meridian Energy's 100MW/200MWh BESS at Ruakākā, Northland, commissioned in 2025
 - (c) Contact Energy's 100MW/200MWh BESS at Glenbrook, commissioned in March 2026
 - (d) Genesis Energy's 100MW/200MWh BESS at Huntly, planned to be commissioned in August 2026.
- 2.8 The cost of BESSs has fallen substantially over the past several years and we are expecting a rapid increase in the number of BESSs connecting to New Zealand's power system in the coming years.
- 2.9 Transpower, in its role as grid owner, is observing an increase in connection enquiries for utility-scale BESSs. Its [generation and battery connection queue](#) (as of April 2026) shows almost 600MW of additional BESS capacity that could enter the market by 2028.¹⁰
- 2.10 We expect BESSs will play an increasingly important role in the power system as more intermittent generation, like wind and solar, connects to the system. This is

⁹ This BESS is operated by NewPower

¹⁰ [Market Operations - Weekly Report - 5 April 2026.pdf](#)

because BESSs can help balance the variability of intermittent generation and can provide many services to support the system that intermittent generation cannot or is less suited to. We note that over 80% of new generation is expected to be from wind and solar energy. It is therefore encouraging to see significant investment in BESSs is being planned as this will help make best use of this new generation.

3 We consulted on issues and options

- 3.1 We consulted on [issues and options](#) in late 2025. We received 22 submissions in response to our consultation.
- 3.2 Table 1 provides a list of submissions received; the full submissions are available on the [Authority's website](#).

Table 1: Parties who provided submissions

Category	Submitters
BESS owners and operators (current and prospective)	Contact Energy, Genesis Energy, Lodestone Energy, Meridian Energy, NewPower, Pacific Power Resources, Tesla, WEL Networks
Electricity distribution businesses and associations	Electricity Networks Aotearoa (ENA), PowerCo, Unison and Centralines, Vector
Individuals	David Haysom, Earl Bardsley, Graeme Thorpe, Michael Clark
Others	Electricity Engineers' Association of New Zealand (EEA), Electricity Retailers' and Generators' Association of New Zealand (ERGANZ), Fonterra, Independent Electricity Generators Association (IEGA), Mercury, Transpower (as System Operator).

- 3.3 Submitters were generally supportive of our work to improve wholesale market arrangements for BESSs. Submitters (eg, ERGANZ and Mercury) also encouraged us to accelerate our work on BESSs to maximise their systemic benefits by removing barriers to their participation in the electricity market. Contact considered it to be the Authority's most important work programme due to BESSs' potential role in addressing many of the Authority's priorities.

Unlocking the benefits of the unique characteristics of BESSs

- 3.4 To help frame our approach to developing new market arrangements for BESSs, we consulted on the unique characteristics of BESSs:¹¹
- BESSs are single entities that both consume and generate electricity and can transition seamlessly between these states.
 - BESSs have short-term storage and their consumption and generation are inter-dependent. How much they can consume and generate depends on, and impacts, the battery's state of charge.
 - The optimal operation of a BESS depends on expectations of prices in the near future. If it consumes or generates now, it will forego an opportunity to do so in the near future as it will need time to recharge.
 - BESSs are highly flexible. Their control systems can be configured to respond in many ways to the needs of the power system.
- 3.5 Submitters broadly agreed with our summary of these characteristics, with a few additions and exceptions, in particular:

¹¹ For more detailed information on the unique characteristics of BESS, see our [issues and options paper](#) (section 3).
Wholesale market arrangements for battery energy storage systems

- (a) BESSs can experience significant energy losses
 - (b) warranty conditions will impact BESS operations more than is the case for standard loads and generators
 - (c) the storage capacity of BESSs is likely to increase over time
 - (d) some hydro-generation plants also have short storage.
- 3.6 We agree these are important considerations and have reflected them in developing and assessing our proposals.
- 3.7 At this stage, we consider it important to develop arrangements appropriate to existing BESSs and those that we expect to connect to the power system in the shorter-term. We will consider the needs of short storage hydro plant in our future workplan, including as part of any further work to consider reducing the gate closure period for BESSs.
- 3.8 We also consulted on identifying the benefits of BESSs. In summary, we considered BESSs can:¹²
- (a) reduce wholesale purchase costs through energy arbitrage¹³
 - (b) support a stable and resilient power system by providing ancillary services
 - (c) help ensure sufficient capacity in times of tight supply by balancing intermittent generation
 - (d) reduce dry year risk by enabling the overbuild of intermittent generation
 - (e) provide network alternatives and reduce location-specific high prices by building in the locations where BESS support, eg, additional supply or voltage support, is needed most
 - (f) reduce financial risk for generators and purchasers, with flow-on effects on prices for consumers.
- 3.9 Submitters broadly agreed with our assessment, with several submitters highlighting the benefits of various network and wider system services that BESSs can provide (eg, system strength, system inertia, and fast frequency response).
- 3.10 One submitter also noted that BESSs can help encourage efficient investment in intermittent generation, as BESS owners can buy excess energy when supply exceeds non-BESS demand. We agree with submissions on these points. We have reflected these points in assessing the benefits of our proposal and will also take them into account in our future work.

The role of BESSs will evolve over time

- 3.11 To inform the development and assessment of options, we consulted on how we expected BESSs to operate and how their role is likely to evolve over time. In summary, we believe:
- (a) BESS owners will take advantage of energy arbitrage. Initially BESS owners would take advantage of both predictable opportunities (such as buying during

¹² See appendix B of our [issues and options paper](#) for more detail on the other benefits listed.

¹³ Energy arbitrage means buying when prices are low and selling when prices are high. See section 3 of the [issues and options paper](#) for a full explanation. See paragraphs 3.23 to 3.24 and Box 2 of our [issues and options paper](#) for a detailed explanation of how energy arbitrage can reduce wholesale purchase costs.

demand troughs and selling at demand peaks) as well as unpredictable opportunities (taking advantage of unexpected changes in prices). Over time, the focus would increasingly be on unpredictable opportunities as more intermittent generation connect to the system and competition amongst BESS owners increases.

- (b) BESS owners will provide ancillary services. Initially the focus would be on instantaneous reserves, but this market would quickly become saturated as more BESSs enter the market. In the longer-term BESS owners may focus on potential new ancillary services to manage the changing needs of the power system.
- (c) BESS owners will increasingly focus on managing financial risk and providing network support as more wind and solar farms connect to the system.

3.12 Submitters broadly agreed with our assessment, highlighting the potential increasing role of BESSs in new ancillary services to manage the growth in intermittent generation. A few submitters also noted the increasing need for coordination to manage competing system operation needs between grid and distribution networks. We note that our future system operation (FSO) project is looking to address this issue.

Summary of Code amendment proposal

- 3.13 Following feedback from submitters on our [issues and options paper](#), we have refined the proposal we are advancing as a draft Code amendment.
- 3.14 Table 2 provides a summary of our overall proposal, including how the proposed Code amendment put forward in this paper differs from the preferred option in our [issues and options paper](#).

Table 2: Comparing the Code amendment proposal to the preferred option from the issues and options paper

Issues with existing arrangements	Preferred option from issues and options paper	Code amendment proposal and rationale
<p>Dispatch requirements for BESSs</p> <p>BESSs are dispatchable when discharging but not when charging.</p>	<p>BESS owners should submit dispatchable bids and respond to dispatch instructions when charging.</p>	<p>No change to initial preferred option.</p> <p>We consider this would promote security of supply and efficient price signals.</p>
<p>Bid and offer forms for BESSs</p> <p>BESS owners must submit separate bid and offer forms when charging and discharging and receive separate dispatch instructions for each.</p> <p>Similarly, BESS owners must submit separate generation reserve and interruptible load</p>	<p>BESS should be treated as a single entity.</p> <p>To model this in the market system, BESS owners should submit bids and offers using a single form for bids and offers and a single offer form for generation reserve and interruptible load.</p>	<p>We have slightly altered the preferred option to clarify that BESSs' interruptible load and generation reserves would be specified separately (but still in a single form). This is so the different costs associated with each could be reflected in the offers.</p> <p>We consider this proposal would reduce operational and system</p>

Issues with existing arrangements	Preferred option from issues and options paper	Code amendment proposal and rationale
offers and respond to separate dispatch instructions for each.	The System Operator should send a single dispatch for energy and a single dispatch for reserves.	complexity and enable participation in future ancillary services. It would also reduce set-up costs for new BESSs.
<p>Gate closure arrangements for BESSs</p> <p>Gate closure rules for BESSs vary depending on whether the BESS is charging or discharging and whether it is embedded or grid-connected.</p> <p>Current arrangements can create scheduling uncertainty and lead to conservative trading or frequent offer revisions.</p>	<p>Allow BESS owners to trade their full capacity at gate closure and introduce SoC constraints to ensure feasible scheduling and dispatch.</p> <p>Require a one-hour gate closure for BESSs whether charging, discharging, grid-connected or embedded.</p> <p>As an interim option, allow BESS owners to trade their expected capability at gate closure and to update traded quantities after gate closure if expected capability changes due to changes in stored energy.</p>	<p>We have altered our proposal to align SoC constraints in dispatch with those in the forecast schedules, to reduce uncertainty for the System Operator.</p> <p>We have added to our proposal a requirement for SoC constraints to account for round-trip losses, and for BESS owners to provide information in their trade forms to facilitate this. This would help ensure feasible scheduling and dispatch.</p> <p>We have amended our proposal to clarify that BESS owners could use their energy when needed most in an extended grid emergency.</p> <p>We consider the overall proposal would balance efficient operation of BESSs with the System Operator's needs to assess system risks and prepare mitigations.</p>
<p>Constrained off payments for BESSs</p>	BESS should not receive constrained off payments	Retain the existing constrained off payments for BESSs. We consider this helps level the playing field between BESS owners and generators.

3.15 Full details for each aspect of the proposal can be found in sections 4 to 7 of this paper.

We are proposing new definitions for BESSs

3.16 We are also proposing new Code definitions for BESSs as part of our Code amendment proposal.

3.17 We consulted on how to define BESSs in the Code. We received many suggestions that will help us in considering how to treat BESSs in the Code, both for this work and future Code amendment proposals. However, for this immediate work, we consider it sufficient that the definitions recognise BESSs as unique entities.

- 3.18 While the Code already recognises energy storage systems (ESS), we consider the appropriate market arrangements for BESSs may differ from other ESS due to their unique characteristics.
- 3.19 The Code currently defines ESS as meaning all equipment functioning together as a single entity that is able to take electricity from a network, store the energy in another form, and provide injection.
- 3.20 Table 3 summarises our proposed additional Code definitions:

Table 3: Proposed additional Code definitions for BESS

Definition	Code drafting (Appendix A)
<p>Battery energy storage system:</p> <p>an energy storage system where the energy is stored exclusively in electro-chemical form</p>	Amended clause 1.1
<p>Battery energy storage system owner:</p> <p>a person who owns battery energy storage systems, or any person who acts, in respect of Parts 13, 14 and 15, on behalf of any person who owns such battery energy storage systems, to the extent that person is acting in respect of that battery energy storage system.</p>	Amended clause 1.1
<p>Battery energy storage system station:</p> <p>one or more battery energy storage systems that are directly connected to a network and that inject into the network at a single point of connection</p>	Amended clause 1.1

- 3.21 For this paper, we use the term BESS owner to mean the owner, operator, or trader of the BESS station. This is consistent with our proposed Code definition of battery energy storage system owner above. When we refer to a BESS or BESSs in this paper, this means the BESS station, unless otherwise stated. This is because we are proposing trades and dispatch would be at the BESS station level.

Timing of changes and further work

- 3.22 The Authority has been working with the System Operator to investigate options to deliver benefits early if the Code amendment proposal is adopted:
- (a) The System Operator plans to put in place an interim fix for the issue where BESSs can be dispatched to charge and discharge at the same time.¹⁴ This fix is planned for June this year.
 - (b) The Authority has provisionally instructed the System Operator to begin preliminary activities to support a potential future software change in parallel with this consultation on the proposed Code amendment. This will speed up implementation if the proposed Code amendment is made. We will consider feedback received through this consultation before making a final decision on the proposed Code amendment and whether this design work will be needed.

¹⁴ See section 5 of this paper (issue 2) for more information.

- (c) The Authority is proposing an interim solution to the issues with gate closure arrangements. This would enable more efficient use of BESSs before the longer-term solution is implemented.
- 3.23 If the Authority decides not to reduce the gate closure period for BESSs as a result of this consultation, we may accelerate work to consider reduction of the gate closure period.
- 3.24 This would include investigating the potential for trialling reduced gate closure for BESSs. This would enable the System Operator to better understand operational risks and identify potential tool and process improvements that may be needed to allow for a reduced gate closure period. This would also help us to develop any future Code amendment proposal to reduce the gate closure period.
- 3.25 Table 4 summarises the expected timing of implementation and other activities if the proposed Code amendment is adopted.

Table 4: Expected timing of the proposed changes

Proposal	Immediate implementation	Further implementation and other considerations
Dispatch requirements for BESSs	Proposed Code amendment to require BESSs to be dispatchable when charging would come into force in September 2026	N/A
Bid and offer forms for BESSs	System Operator to implement interim fix for physically impossible dispatches in June 2026	Proposed final Code amendment to enable a single offer form for each BESS by December 2027. System Operator to consider upgrading its MFK tool to enable full BESS' participation in MFK by December 2027.
Gate closure arrangements for BESSs	Interim provisions of proposed Code amendment clarifying circumstances in which BESS owners' offers and bids may be revised, to reduce inefficient conservatism in trading, would come into force in September 2026	Proposed final Code amendment to enable BESS owners to trade their full capacity at gate closure and introduce SoC constraints would come into force by the end of 2027 Start trial to reduce gate closure (subject to prioritisation for 2026/27 and discussions with the System Operator)
Constrained off payments for BESSs	No change required	Scope to reconsider arrangements alongside reduced gate closure trial

4 Issue 1: Dispatch requirements for BESSs when charging

Issues with the existing arrangements

- 4.1 We described the issues with the existing dispatch requirements for BESSs when charging in our [issues and options paper](#) (section 4).
- 4.2 In summary, BESSs are not currently required to be dispatchable while charging despite being able to follow dispatch instructions. This could:
- (a) lead to unexpected changes in the supply-demand balance, and compromise the System Operator's ability to maintain a stable power system
 - (b) create inefficient price signals, as the market system cannot select the least cost combination of offers and dispatchable bids for dispatch
 - (c) create unnecessary administration costs by requiring a BESS to make separate applications to become a generator and a dispatchable load purchaser.

Preferred option: BESSs should be required to be dispatchable at all times

- 4.3 In our [issues and options paper](#) (section 4) we suggested that, when charging, BESSs should be required to submit dispatchable bids and respond to dispatch instructions.
- 4.4 This was our preferred option because it would resolve the issues noted above. In summary:
- (a) BESSs would be subject to the appropriate requirements for an entity participating in the market for the purposes of selling energy, aligned with their ability to follow dispatch instructions
 - (b) it would support security of supply by providing the System Operator with better visibility and certainty of BESSs when charging
 - (c) the market could more efficiently select resources to balance supply and demand and set more efficient price signals. In the long term, efficient price signals promote efficient investment decisions
 - (d) it would remove unnecessary costs related to:
 - (i) BESS owners applying to become dispatchable purchasers; and
 - (ii) the System Operator assessing the applications.

Submissions and responses

- 4.5 Most submitters agreed with our framing of the issue and supported our preferred option. We address the key views raised by submitters below.

The framing is based on the old paradigm of a participant being either a purchaser or a generator

- 4.6 WEL Networks submitted that our framing of the problem is based on the old paradigm of a participant being either a purchaser or a generator. WEL Networks suggested we pursue a new category for BESSs that defines obligations when charging, discharging and being idle.

The Authority's response

- 4.7 The Authority does not believe that our framing is based on an old paradigm. We consulted on the unique characteristics of BESSs to enable us to apply unique arrangements for BESSs where appropriate. For this issue, we consider BESSs should be dispatchable when charging, due to the similarities between BESSs and other generators. In other instances,¹⁵ we consider BESSs should have unique arrangements. We accept that BESSs are both generators and purchasers, in that they both sell and buy electricity.
- 4.8 The Authority agrees that a new definition for BESS should be added to the Code to enable unique arrangements for BESSs as appropriate. We have provided a proposed definition as part of our proposed Code amendment.¹⁶

Embedded BESSs being dispatchable while charging could cause issues for distribution networks

- 4.9 PowerCo, Unison, Vector and ENA supported our proposal but expressed concerns about issues it could cause for distribution networks. These submitters highlighted that lines companies with embedded BESSs need to be able to access the flexibility provided by those BESSs when needed (for emergencies or network management).
- 4.10 A few of these submitters were also concerned about the possibility of market dispatch of embedded BESSs causing issues, such as overloading lines on distribution networks.
- 4.11 PowerCo submitted that requiring embedded BESSs to be dispatchable contradicts the Authority's preferred option for future system operation arrangements.

The Authority's response

- 4.12 The Authority acknowledges these concerns. We consider that coordination between distribution network owners, the System Operator, and flexible distributed resources will need to improve as the volume of these resources increases in the future. We are looking to address this issue as part of our future of system operation workstream. For example, the parties can agree primacy rules to stipulate how BESSs are to be deployed under different circumstances. Distributors can also set limits for the use of BESSs within the constraints of distribution networks.
- 4.13 We note that there are already mechanisms in place, although imperfect, to help ensure both the System Operator's and distribution network owners' needs are met. A BESS owner can:

¹⁵ Eg issues 2 and 3 described in this paper.

¹⁶ See clause 1.1 in Appendix A.

- (a) trade at prices that are guaranteed to clear if their consumption or generation is required to support a distribution network, and
 - (b) limit bid and offer quantities where they are required to curtail their consumption or generation to prevent issues on distribution networks.
- 4.14 The distribution network operator (or distribution system operator) would need to work with the BESS owner to ensure they could accurately reflect the distribution network needs in their trades.
- 4.15 We also note that our preferred solution would not be creating a new issue. Potential issues relating to wholesale market participation by embedded generation, including BESSs when discharging, already exist.
- 4.16 We also disagree that our preferred solution presupposes any future system operation arrangements. Our proposal introduces appropriate arrangements for the existing system operation framework. Suitable arrangements for the future can be developed as part of our [Future System Operation project](#).

System Operator discretion should be limited to rare system security events

- 4.17 In its submission, Lodestone supported BESS owners submitting fixed volume bids and offers that reflect a clearly defined charging and discharging schedule where this aligns with the intended use case. However, it submitted that dispatch outcomes should follow submitted bids and offers, with intervention being limited to genuinely exceptional system security events.

The Authority's response

- 4.18 The Authority notes that the System Operator rarely exercises its discretion to dispatch plant out of merit order but may do so if required to maintain its principal performance obligations. However, we note that if the BESS owner wanted to adhere to a predefined charge and discharge schedule, it would need to place bid and offer prices that were guaranteed to clear.

There should be a dispatch compliance tolerance to allow for parasitic load

- 4.19 Contact Energy proposed we include a parasitic load tolerance in dispatch compliance.

The Authority's response

- 4.20 The Authority notes that parasitic load should be accounted for in bids and offers, as bids and offers are made at the point of connection to the grid. If appropriately accounted for in the bid or offer, parasitic load would be accounted for in the dispatch instruction.
- 4.21 To ensure parasitic load is accounted for in dispatch instructions under our longer-term proposal to address issue 3, we are proposing this information is also incorporated in the calculation of state of charge constraints (see section 6 for more details).
- 4.22 We understand from our discussions with BESS owners that parasitic load can be difficult to predict. The BESS owner may not be able to perfectly follow a dispatch instruction that includes parasitic load. We therefore accept that there may need to be some tolerance in dispatch compliance.

4.23 We do not, however, consider it necessary to make an explicit allowance in the Code for this at this stage. We expect parasitic load prediction errors to be within normal tolerance levels for dispatch compliance. If, in the future, this issue turns out to be more material than expected, we would consider ways to address this, including whether to provide for an explicit tolerance in the Code or methods to ensure BESS owners are submitting more accurate bids and offers.

BESSs should receive constrained off payments if dispatchable when charging

4.24 NewPower submitted that BESSs should only be required to be dispatchable when charging if they receive constrained off payments. Genesis similarly submitted that removing constrained off payments appears to be inconsistent with the requirement for BESS owners to be dispatchable when charging.

The Authority’s response

4.25 We consider that BESSs should be required to be dispatchable when charging, for the reasons listed in section 4 of our [issues and options paper](#). However, we are no longer proposing to remove constrained off payments to BESSs when charging, because we no longer consider it would help to level the playing field between BESSs.¹⁷

We propose to amend the Code to make BESSs dispatchable

4.26 Having considered submissions, the Authority is proposing to amend the Code to give effect to the preferred solution from our [issues and options paper](#) (section 4).

4.27 We are proposing that BESS owners, for both their consumption and production of electricity, would have the same obligations as generators to submit dispatchable trades (or provide information on their operation via alternative means) and respond to dispatch instructions. This would support security of supply and efficient price signals, as well as remove administration costs. Table 5 summarises these BESS owner requirements.

Table 5: Summary of proposed BESS owners’ requirements when consuming and producing

Our proposal	Rationale	Proposed Code drafting (Appendix A)
For BESS stations greater than 10MW and connected directly to the grid: submit dispatchable bids.	Improves system security and efficient price signals. This is the same as existing requirements for generators, except it would apply to BESS owners in respect of their consumption as well as their generation.	New clause 13.6A provides new trading requirement for BESS owners New clause 13.25A provides exception for BESSs 10MW or smaller
For BESS stations that are 10MW or smaller and for which dispatchable bids are	This is the same as existing requirements for generators, except it would apply to BESS	New clause 13.25

¹⁷ see section 7 of this paper for more details

Our proposal	Rationale	Proposed Code drafting (Appendix A)
not submitted: provide information in a form reasonably determined by the System Operator on the expected consumption	owners in respect of their consumption as well as their generation	
For BESS stations greater than 10MW and indirectly connected to the grid, if required to do so by the System Operator , either: <ul style="list-style-type: none"> submit dispatchable bids or provide information regarding their intended consumption in some other form agreed with the System Operator. 	Improves system security, and efficient price signals (if the BESS owner submits dispatchable bids) This is the same as existing requirements for generators, except it would apply to BESS owners in respect of their consumption as well as their generation	Amended clause 8.25(5)
Not required/permited to be dispatch capable load stations	Remove unnecessary costs to: <ul style="list-style-type: none"> BESS owners for applying to become dispatchable purchasers the System Operator for assessing the applications 	Amended clause 13.3A removes a BESS owner's ability to apply for their BESS to be a dispatch capable load station New clause 13.3A(6) revokes any existing approvals for a BESS to be a dispatch capable load stations
If submitting dispatchable bids: comply with dispatch instructions sent by the System Operator	This is not a new requirement. We have listed it here for completeness.	Amended clause 13.82 to apply for BESSs as they would no longer be considered dispatch capable load stations
The System Operator must advise a BESS owner of any requirements to submit dispatchable bids or provide information regarding intended consumption in another form at least 20 business days in advance of the requirement coming into effect.	This is the same as the existing requirement in relation to generation, except it would apply in respect of a BESS's consumption as well as generation	Amended clause 8.25(5)(b)

4.31 The form and nature of dispatchable bids and offers for BESSs under our proposal is discussed in sections 5 and 6.

Consultation questions:

Q1. Do you agree with our proposal to require BESSs to be dispatchable while consuming?

Q2. Do you have any comments on our proposed Code drafting for issue 1?

5 Issue 2: Bid and offer forms for BESS

Issues with the existing arrangements

- 5.1 We described the issues with the existing bid and offer arrangements for BESSs in our [issues and options paper](#) (section 5). These issues are summarised below.

Physically impossible dispatches threaten system security and efficient operation

- 5.2 The market system treats a BESS's charging and discharging components as separate entities. This arrangement does not recognise BESSs as single entities that can transition seamlessly from charging to discharging or vice versa.
- 5.3 This means a BESS may be dispatched to both consume and generate at the same time, which is physically impossible. It may also be dispatched to provide interruptible load in this situation, which would be physically impossible if it is generating.
- 5.4 This could create confusion for system coordinators and BESS owners making it more difficult for the System Operator to manage the power system. It could also potentially lead to insufficient instantaneous reserve being made available. As a result, the system may be less resilient to events like the sudden loss of a large generator, increasing the risk of disruptions to consumers' electricity supply in such a scenario.
- 5.5 Since the publication of our [issues and options paper](#) in November 2025, we are aware that physically impossible dispatches happened relatively often during the HVDC outages in December 2025 and February 2026. As the value of instantaneous reserve was high during these times,¹⁸ the market system saw value in dispatching a BESS to consume in order to provide low priced interruptible load, at the same time as dispatching the BESS to generate.
- 5.6 Furthermore, the current arrangements create unnecessary set-up and operating costs for BESS owners because they are required to submit separate load bids and generation offers, and to respond to separate dispatch instructions for each.

Separate bids and offers limit BESS involvement in MFK

- 5.7 The System Operator procures the frequency keeping ancillary service to maintain a stable system frequency.
- 5.8 The System Operator typically procures this service as multiple frequency keeping (MFK). This means that more than one provider can be selected to maintain system frequency in each island at the same time.
- 5.9 The System Operator sends frequency regulating instructions to each selected frequency keeper specifying an upward or downward MW variation from their dispatch set point.
- 5.10 BESSs are physically able to provide frequency keeping services while charging, discharging, and while transitioning from either state to the other.

¹⁸ Reserve requirements were high during these outages because, with only half of the HVDC link in service, the HVDC was unable to provide self-cover in the event of a sudden loss of the other half of the link.

- 5.11 However, the current MFK software only enables generators to participate in MFK, and only when dispatched to generate at above their cleared MFK band. Purchasers cannot participate in MFK.¹⁹
- 5.12 This means that BESSs are currently restricted in their ability to participate in MFK.²⁰ If a BESS was recognised as a single entity, it would enable BESSs' full charge and discharge capacity to be used in MFK.
- 5.13 No BESSs currently participate in MFK, although we understand that several BESS operators have expressed interest in doing so.

Preferred option: a single trade form and dispatch

- 5.14 To address the issues identified, the Authority's preferred option was to implement:
- (a) a single bi-directional offer form to allow BESS owners to bid and offer as a single entity, and
 - (b) a single offer form for reserves that includes both generation reserve and interruptible load.
- 5.15 We also considered the option of linking market nodes²¹ to address the issue of physically impossible dispatches.

Submissions and responses

- 5.16 Most submitters supported our preferred option, while one submitter said it was unsure if the benefits outweighed the costs. We address the key views raised by submitters below.

It is unclear if a single offer form improves the ability of BESS owners to offer MFK

- 5.17 Contact submitted that it was unclear if a single offer form would improve the ability of BESS owners to offer MFK and wanted to explore this further with the Authority. After discussing the matter with Contact, the Authority understands that Contact considers the System Operator's software could be enhanced to enable full participation by BESS owners in MFK, without requiring a single offer form.

The Authority's response

- 5.18 The Authority agrees with Contact's synopsis. However, we consider a single offer form for MFK participation would simplify the market system changes required to enable full participation and would provide visibility of BESSs as single entities to system coordinators.
- 5.19 Upon reflection, we consider BESSs not being traded or dispatched as single entities creates complexity for system operation more generally, not only in relation to MFK. We consider that a single offer form is needed more broadly to simplify the modelling and operation of BESSs in the wholesale market, and to enhance participation in current and potential future ancillary services.

¹⁹ This is not a regulatory barrier; it is due to restrictions in the System Operator's tools

²⁰ See paragraphs 5.14 to 5.18 of the [issues and options paper](#) for a full explanation.

²¹ Market nodes reflect different locations on the grid and are used as unique identifiers in the market system. Linking nodes would allow the market system to recognise when bids and offers are from the same BESS.

A single offer form may conflate reserve types

- 5.20 Contact submitted that a single reserve offer form for a BESS could conflate interruptible load and generation reserves, which could cause issues. After discussions with Contact, the Authority understands Contact's concern was that the cost of providing interruptible load may be less than the cost of providing generation reserves. If these were not offered separately, the BESS owner would have to base its reserve offer prices on its expected dispatch to consume or generate. If its expectation was wrong, it may be dispatched for reserve inefficiently.

The Authority's response

- 5.21 The Authority understands Contact's concern and agrees this would not be ideal.
- 5.22 Therefore, we are proposing to keep interruptible load and generation reserve offers separate. We are still proposing they would be offered on the same form but there would be separate sections on the form for each component. They would also require separate dispatch to enable constrained on calculations.²²
- 5.23 These changes would result in more efficient dispatch and price signals compared to the suggested solution from our [issues and options paper](#).
- 5.24 We note this change would add additional complexity compared to the original proposal. In our view, however, the benefit of enabling more efficient dispatch and price signals outweighs any cost associated with this complexity.

There would be a cost for existing BESS owners to change existing systems

- 5.25 A few submitters noted that there would be a cost for existing BESS owners to change their systems to adopt the new offer forms and receive single dispatches for energy and reserves.

The Authority's response

- 5.26 The Authority acknowledges this point. However, we note that our proposed solution to issue 3 would also require a change to the offer forms. As we are proposing these solutions be implemented at the same time, we have assessed the costs and benefits of the combined proposal. From this perspective, we consider the benefits of our proposal clearly outweigh the costs (see section 8 for more details).
- 5.27 We also consider there would be cost savings for future participants under this approach.

BESS owners may want to participate in MFK in the short-term

- 5.28 As a separate project, the Authority has been considering potential enhancements to the MFK tool. These enhancements could include co-optimisation of frequency keeping along with energy and reserves and removing constrained on and off payments for frequency keeping providers to enable greater competition.²³ See

²² Constrained on situations for reserve providers occur when the final reserve price is below the price the reserve provider was willing to accept according to its offer.

²³ By removing the requirement for a minimum 4MW frequency keeping offer band that exists due to the current FK provider selection tool.

paragraph 3.32 of our *Potential solutions for peak electricity capacity issues* decision paper (July 2024).²⁴ We considered that enhancements to enable full participation in MFK for BESSs²⁵ would happen as part of the MFK enhancements work.

- 5.29 In our [issues and options paper](#) (section 5), we asked whether BESS owners may want to participate in MFK solely as generators until upgrades were made to the MFK tool to enable full BESS' participation. We asked this because BESS owners are not currently participating in MFK. This information would help us determine whether there is value in expanding BESS' participation in MFK now (as part of this BESS work) or waiting until later (as part of the MFK enhancements work).
- 5.30 Meridian said it did not consider the current value of MFK would justify its BESS taking part in it, but that it may in the future if MFK procurement quantities were increased. Contact and NewPower indicated they might be interested in participating in MFK just as generation.

The Authority's response

- 5.31 As noted above, we are working with the System Operator to determine whether to enable full MFK participation for BESSs at the same time as this proposal or as part of the broader MFK enhancements work.
- 5.32 We have also asked the System Operator to assess the performance of its existing MFK tool. This work will help us to understand the current role of MFK within the frequency regulation framework, including the issues introduced by increasing intermittent generation. It will also help us to determine the direction of the MFK enhancements work.
- 5.33 Initial results indicate that MFK remains a critical tool for managing intra-dispatch frequency variations. One potential short-term measure to manage system variability and reduce the persistent bias in system frequency error is to increase the existing MFK band. This is subject to further analysis.
- 5.34 The Authority is also working with the System Operator to develop a frequency management strategy. This strategy would inform the development of current and potential future ancillary services to support system strength and system inertia.
- 5.35 After considering submissions and the initial results from System Operator studies on MFK, we consider there is value in enabling full BESS' participation in MFK at the same time as this BESS work, to unlock additional value streams for BESS owners. The full scope of potential MFK enhancements²⁶ will be informed by the frequency management strategy.
- 5.36 To summarise:
- (a) BESS owners can currently participate in MFK as generators only
 - (b) we are working with the System Operator to consider upgrading the MFK tool to enable full MFK participation from BESSs at the same time as this BESS work

²⁴ See: [Decision paper Potential solutions for peak electricity capacity issues.pdf](#).

²⁵ This means updating the MFK tool to accept a single offer form for BESSs.

²⁶ Such as removing the 4MW minimum participation size and co-optimising MFK with energy and reserves.

- (c) longer term, a frequency management strategy would inform the development of current and potential new frequency management products.

5.37 Ultimately, we expect that moving to bi-directional offer forms for BESSs would simplify and enable BESS' participation in a wider range of potential ancillary services to support system stability.

The System Operator will address physically impossible dispatch

5.38 The System Operator has decided to implement a fix for the physically impossible dispatch problem.²⁷ This solution will recognise that the bids and offers for a BESS are from the same entity and create a constraint to ensure generation and consumption for a BESS cannot be dispatched at the same time. The System Operator is on track to implement this by June 2026.

5.39 While the fix is helpful, it will not completely address the broader issues including operational and system complexity, enabling future participation, or unnecessary costs. To address these remaining issues, we consider it is still appropriate to propose changes to the bid and offer forms for BESSs.²⁸

We propose to amend the Code to implement single trade forms and single dispatch

Table 6: Summary of proposed BESS owners' requirements when consuming and producing.

Our proposal	Rationale	Proposed Code drafting (Appendix A)
<p>A single bid and offer form with:</p> <ul style="list-style-type: none"> • 10 price bands for bids • 10 price bands for offers • no maximum ramp rates.²⁹ 	<p><i>Under the existing arrangements, bids have 10 price bands while offers have five.</i></p> <p>BESS owners may have a stronger case for more price bands compared to other generators. This is because their efficient prices may depend on different potential market price and SoC outcomes.</p> <p>10 price bands for bids and 10 for offers would provide BESS owners with sufficient flexibility to reflect the different costs and values associated with different outcomes.</p> <p><i>Existing arrangements require generators to submit maximum up and down ramp rates as part of their offers.</i></p> <p>This is not necessary for BESS owners. BESSs can change output very quickly, and so we do not expect they would ever be constrained by ramp limits over the 5-minute dispatch horizon.</p>	<p>New Form 10, Schedule 13.1</p>

²⁷ For more details on the temporary solution see [Market Operations Weekly Report – week ended 19 April 2026](#).

²⁸ See: [Improving Offer Arrangements for Battery Energy Storage Systems \(TAS 113\)](#).

²⁹ A maximum up (down) ramp rate is used by the market system to create a constraint on a generators dispatch based on how far it can increase (decrease) its output over 5 minutes from its existing output level.

Single reserve offer form with separate components for interruptible load and generation reserve.	This is similar to existing arrangements but reduces complexity by clarifying that the generation reserve and interruptible load are from the same BESS. Retaining separate components enables more efficient dispatch and price signals.	New Form 11, Schedule 13.1
--	--	----------------------------

- 5.40 This proposed Code amendment means that BESSs would receive:
- (a) a single dispatch for energy, and
 - (b) separate dispatch for interruptible load and generation reserve.
- 5.41 There is one key change from our original preferred option. We are now proposing to include in the reserve offer form separate interruptible load and generation reserve sections so that they could be offered at different prices to reflect the different costs of providing each.
- 5.42 We are also now working with the System Operator to consider updating the MFK tool, at the same time making the changes necessary for our proposal (if adopted), to enable full BESS' participation in MFK.
- 5.43 In our [issues and options paper](#) (paragraph 5.32), we indicated that we considered the benefits of this solution likely exceed the cost. We still consider this to be the case, as it needs to be considered alongside the proposals for the other issues.³⁰ The regulatory statement (section 8) provides a cost and benefit assessment for the overall proposal.

Consultation questions:

- Q3. Do you agree with our proposal to have separate offers and dispatch for interruptible load and generation reserve?
- Q4. Do you agree with our proposal that BESS owners have 10 price bands for their bids and 10 price bands for their offers. If not, how many price bands do you think they should have?
- Q5. Do you agree with our proposal that BESS owners not be required to submit maximum up and down ramp rates?
- Q6. Do you agree with our proposal to address issue 2?
- Q7. Do you have any comments on our proposed Code drafting for issue 2?

³⁰ The marginal cost of implementing the single offer form will be minimal since changes to the offer form need to be made to implement state of charge constraints (see issue 3). This also applies to the marginal cost to providers of implementing new trading arrangements.

6 Issue 3: gate closure arrangements for BESS

6.1 In this section we:

- (a) summarise the issues with the existing gate closure arrangements
- (b) recap our preferred option from the [issues and options paper](#) (section 6), including a solution to be applied for an interim period (interim solution) until the full solution can be implemented
- (c) summarise the submissions received and our responses
- (d) highlight additional issues identified through the consultation process that resulted in updates to our proposed solution
- (e) summarise the Code amendment proposal for the full solution and provide detailed rationale
- (f) summarise the Code amendment proposal for an interim solution.

Issues with the existing arrangements

Misaligned gate closure arrangements are confusing and create inefficient incentives

- 6.2 Gate closure enables a stable and resilient power system by providing some certainty to the System Operator about the future state of the power system. This allows the System Operator to assess and mitigate risks ahead of dispatch.
- 6.3 Gate closure also prevents gaming by removing the opportunity for participants to set prices after gate closure.³¹

Box 2: What is gate closure?

Gate closure is the time by which wholesale market participants must finalise their trades (bids, offers and reserve offers). While different for different participants, gate closure is typically one hour ahead of the trading period to which these trades apply.

Gate closure arrangements refer to the gate closure period as well as the permissions for participants to revise bids and offers after gate closure.

- 6.4 However, gate closure rules for BESSs vary depending on whether the BESS is charging or discharging and whether the BESS is embedded or grid connected.
- 6.5 These arrangements:
- (a) create inefficient incentives for BESS owners to connect to distribution networks instead of the grid³²
 - (b) may be confusing and may impose additional costs relative to having a common set of rules.³³

³¹ Participants may change bid/offer quantities after gate closure in special circumstances. Participants may not change bid/offer prices after gate closure. See section 6 of [the issues and options paper](#) for full explanation.

³² Embedded BESSs can respond quickly to new price information, meaning a shorter gate closure period gives them an advantage over grid-connected BESSs.

³³ Different rules for charging and discharging adds unnecessary regulatory complexity, creates confusion for participants and the System Operator, and increases compliance and operational costs.

6.6 These inefficiencies may discourage efficient investment in and operation of BESSs, ultimately increasing costs for consumers.

Gate closure rules for BESSs can create scheduling uncertainty and prevent BESSs from being used to their full potential

6.7 In our [issues and options paper](#) (section 6), we identified that existing gate closure rules and their interpretation may lead to frequent offer revisions and conservative trading by BESSs.

6.8 Because BESSs have short storage capacity, deviations from expected dispatch are likely to affect their capability in subsequent trading periods, which may lead to frequent offer revisions. This makes it harder for the System Operator to assess system risks after gate closure.

6.9 Short storage capacity can also create uncertainty in forecast schedules, as BESS owners may find it difficult to predict their state of charge at longer time horizons. Together, these effects can create scheduling uncertainty and reduce the System Operator’s ability to manage system security risks.

6.10 Restrictive Code provisions and uncertainty about when bids and offers can be revised after gate closure may also encourage conservative trading.³⁴ This includes limiting trade quantities or submitting trades in a manner to ensure dispatch or the ability to comply with dispatch instructions rather than submitting trades to reflect efficient outcomes. This may undermine efficient use and investment in BESSs.

Preferred option: state of charge constraints with full capacity trading

6.11 In our issues and options paper (section 6), we suggested state of charge constraints with full capacity trading to address issues with gate closure arrangements. Table 7 provides a summary of the preferred option.

Table 7: the preferred option presented in our [issues and options paper](#)

Solution	Rationale
Align gate closure arrangements for BESSs, regardless of connection type (grid-connected or embedded) and regardless of operational state (charging or discharging).	This would reduce inefficient incentives to connect to distribution networks and reduce costs by creating clearer and more effective market arrangements
Implement state of charge constraints See Box 3 for more information on our suggestion for SoC constraints.	This would: <ul style="list-style-type: none"> ensure feasible scheduling and dispatch for BESSs, enable BESSs to trade at full capacity while providing visibility to the System Operator of expected and potential operation of BESSs, enhancing its ability to plan for and manage potential system security risks, and improve scheduling certainty and provide more accurate price signals.

³⁴ See Box 3 in our [issues and options paper](#) for a full explanation of conservative trading.

<p>Allow BESS owners to trade full capacity at gate closure</p> <p>BESS owners would have the ability to trade below their full capacity if needed. For example, to limit damage and degradation of the batteries and satisfy any conditions included in manufacturers' warranties over their equipment.</p>	<p>This would mean BESS owners would not need to be conservative in their trades (ie, enable potential for BESS owners to trade at full capacity).</p>
<p>Maintain one-hour gate closure for BESSs</p> <p>BESS owners would:</p> <ul style="list-style-type: none"> • not be permitted to revise trade prices after gate closure • only be able to revise trade quantities after gate closure in limited circumstances. 	<p>This would provide greater certainty to the System Operator about how BESSs will operate, enhancing its ability to plan for and manage potential system security risks.</p>

6.12 We considered this would achieve the best balance between the needs for the System Operator to manage system security, the efficient use of BESS, and limiting gaming opportunities.

6.13 We also considered the following alternative solutions:

- (a) full capacity trading with SoC constraints and reduced gate closure (30 minutes, 15 minutes, or 0 minutes)
- (b) conservative trading with one hour gate closure
- (c) conservative trading with reduced gate closure (30 minutes, 15 minutes, or 0 minutes).

6.14 See section 6 of our [issues and options paper](#) for a full description of the alternative solutions and our assessment.

Box 3: Our suggestion for state of charge constraints

A state of charge constraint would ensure the schedule and dispatch quantities for each BESS are feasible given the amount of energy stored in the battery and its storage limits. There would be state of charge maximum and minimum constraints:

- **A state of charge maximum constraint** would limit the MWh cleared to charge to be no more than the difference between the starting state of charge and the maximum state of charge.
- **A state of charge minimum constraint** would limit the MWh cleared to discharge plus the MWh cleared to provide sustained instantaneous reserve (as generation reserve) to be no more than the difference between the starting state of charge and the minimum state of charge.

These constraints would limit:

- **charge and discharge** such that they would be achievable for the full trading period in a forecast schedule, and 5 minutes in a dispatch schedule.³⁵

³⁵ Forecast schedules solve for half hour trading periods in the future whereas dispatch schedules solve for 5-minute periods.

- **sustained instantaneous reserve** so that it would be achievable for 15 minutes if required at the end of the trading period in a forecast schedule or the end of 5 minutes in a dispatch schedule.³⁶

BESS owners would be required to provide real time telemetry of their state of charge and to submit state of charge maximums and minimums as part of their offers. This would enable BESS owners to reflect changing capabilities and any requirements they need to meet to ensure that their equipment remains within the conditions of any warranties granted by the manufacturer.

For dispatch, the starting state of charge would be based on a real time telemetered value supplied to the System Operator. For forecast schedules, the starting state of charge for the first period would be based on the real time telemetered value. The starting state of charge for subsequent periods would be calculated in the market system based on the previous period's starting state of charge adjusted for cleared charge or discharge quantities.

BESSs are already required to provide the System Operator with real time telemetry for state of charge information.³⁷

Interim solution and option to reduce gate closure

- 6.15 We sought views on the need for an interim solution, as implementing SoC constraints was estimated to take around 17 months.
- 6.16 We suggested implementing an interim Code amendment to allow BESS owners to trade based on their expected capability and to revise quantities after gate closure if their SoC differed from expected.
- 6.17 We also suggested reconsidering reduced gate closure once the System Operator completes its project to enhance system coordination.³⁸

Submissions and responses

Feedback on aligning gate closure arrangements across BESS connection types and operational states

- 6.18 Submitters broadly supported the option of aligning gate closure across BESS' connection types and operational states.
- 6.19 However, NewPower and IEGA did not support the proposal to increase gate closure for embedded BESSs from 30 minutes to one hour. They considered gate closure for embedded BESSs should be the same as for embedded generation (30 minutes) because:
- (a) NewPower considered one hour gate closure for BESSs would unfairly disadvantage them compared to other kinds of embedded generation

³⁶ This is based on advice from the System Operator that BESS needs to ensure any SIR response required can be maintained for 15 minutes.

³⁷ See chapter 8 of the System Operator's [Connected Asset Testing and Information Standard consultation](#).

³⁸ This project seeks to improve system coordinator's abilities to consider a range of sensitivities and scenarios in security checking processes.

- (b) IEGA considered BESSs should have 30-minute gate closure for the same reasons embedded generators do: their smaller size and low impact on the market.
- 6.20 IEGA also considered the length of gate closure is unlikely to be a driving factor for people to invest in embedded BESSs. It suggested that more compelling reasons include providing network support and reducing costs.
- 6.21 This position contrasts with Contact who suggested that large numbers of embedded BESSs could be built to take advantage of the different treatment, with consequentially more market power.
- 6.22 The System Operator suggested increasing the gate closure for embedded generation, more generally, to one hour to reflect the increasing number of embedded generators entering the market and their increasing capacity.
- 6.23 While WEL Networks agreed that grid-connected BESSs and embedded BESSs should have the same gate closure, they considered this gate closure should be 30 minutes in both cases.

The Authority's response

- 6.24 Our rationale for proposing one hour gate closure is explained in detail from paragraph 6.64 of this paper. Broadly, we consider our proposal would deliver significant efficiency benefits by reducing the need to trade conservatively. On the other hand, we consider the risks to system stability of reducing gate closure to 30 minutes would likely be greater than any additional efficiency benefits gained (after accounting for the efficiency benefits gained under our proposal).
- 6.25 We consider embedded BESSs should not be treated differently to grid-connected BESSs. If there is a large increase in embedded BESSs, and they have shorter gate closure, this could create greater risks to system stability and provide greater market power to embedded BESSs.
- 6.26 The Authority acknowledges that increasing gate closure for embedded BESSs would create an advantage for other types of embedded generation compared to embedded BESSs. However, we also consider that having a shorter gate closure for embedded BESSs would create an advantage over grid-connected BESSs.
- 6.27 In our view, this latter advantage would be greater than the former. We consider, compared to BESSs, most other types of generators do not benefit as much from reduced gate closure and/or do not have as much flexibility in the locations they can connect to the power system.³⁹ For this reason, we consider reduced gate closure for embedded BESSs would create a distortionary incentive to connect BESSs to distribution networks.
- 6.28 However, we consider there may be a case for a legacy clause to enable 30-minute gate closure for existing embedded BESSs and any upcoming BESSs for which the owner has reached financial close on their investment. The issue of distortionary investment incentives does not apply to BESS owners who have already made their investment decision. A downside of a legacy provision is that it would give greater market power to the incumbents. However, in this case, we do not believe it is likely

³⁹ Most generators are constrained by connection location due to the need to be close to their fuel source. Because a BESS's fuel source is electricity, they can connect anywhere in the power system where electricity isn't constrained. However, some connection locations will be more economic than others, due to things like network charges and market prices.

to be a significant issue because there is only one existing embedded BESS participating in the market, and it is a small proportion of the total supply in the market. For the same reason, this approach is unlikely to cause material risks to system stability. We welcome submissions on this issue.

- 6.29 Finally, we acknowledge Transpower's submission about increasing the gate closure period for all embedded generation. However, we consider that is outside the scope of this consultation, and we would need evidence that there is an issue before considering it further.

Feedback on full capacity trading with state of charge constraints

- 6.30 Most submitters supported introducing SoC constraints and enabling full capacity trading. However, most also considered we should reduce gate closure, either alongside this proposal or at a later stage.
- 6.31 Several submitters who supported this approach outlined additional considerations they believed should be taken into account as the proposal is further developed. A few who opposed our preferred option also raised issues they had with this approach. We address the key views raised by submitters below.
- 6.32 Submissions on these points have informed our assessment of our proposal. The need for accurate SoC calculations informed the detail of our proposal for SoC constraints. Otherwise, these points have not affected our Code amendment proposal.

There are factors other than state of charge that affect operational objectives

- 6.33 Some stakeholders emphasised the importance of accounting for other factors affecting BESS' operations beyond SoC. These included network charges, network constraints, network support arrangements, contractual arrangements, and warranty conditions.
- 6.34 These stakeholders were concerned that complying with dispatch under the proposed solution could conflict with operational objectives based on these factors.

The Authority's response

- 6.35 The Authority appreciates these concerns and the growing links between distribution network and overall system requirements.
- 6.36 However, under our proposal and as suggested in our [issues and options paper](#) (section 6), BESS owners would still be able to set bid and offer quantities below their full capacity, as well as provide different minimum and maximum storage limits for each trading period. This would provide them with the flexibility needed to meet their operational objectives, accounting for the above factors, while enabling them to utilise their full capacity where desired.

There is a need for accurate SoC calculations, reliable telemetry, and clear communication protocols

- 6.37 NewPower submitted that there is always some uncertainty in SoC calculations that needs to be accounted for. We have also heard from other BESS owners that it can be difficult to calculate and predict SoC.

- 6.38 NewPower and EEA submitted that SoC data would need to be reported accurately. EEA considered it would be important to have validated accuracy thresholds.
- 6.39 Vector and EEA submitted that, to rely on SoC, there needs to be clear communication protocols (particularly between BESS owners and distributors), and quality telemetry.

The Authority's response

- 6.40 The Authority agrees that it is important that SoC calculations are accurate, to ensure accurate dispatch that can be complied with. At this stage, however, with few BESSs connected to the power system, we consider it would be premature to define accuracy thresholds.
- 6.41 The Authority will monitor compliance with dispatch as operational experience with BESSs matures. If we consider there is an issue to address, we will work with industry to develop accuracy thresholds.
- 6.42 The Authority notes that the requirements for sending telemetered SoC information to the System Operator are set out in the Connected Asset Commissioning, Testing and Information Standard (CACTIS) which becomes effective from 1 July 2026.⁴⁰
- 6.43 We acknowledge, however, that protocols for communicating between distributors and BESS owners have not been developed. We agree that it is important to develop consistent protocols across the industry and are considering this as part of our FSO workstream.

State of charge information needs to be kept confidential to the System Operator

- 6.44 In its submission, NewPower stated that SoC information should be kept confidential with the System Operator because it could reveal a BESS owner's trading strategies.

The Authority's response

- 6.45 We understand that under the current arrangements for providing telemetry to the System Operator, asset owners agree with the Grid Owner the terms for connecting to the Grid Owner's SCADA⁴¹ system. We expect that asset owners will communicate any data handling requirements with the Grid Owner and System Operator as part of the commissioning process for their asset.
- 6.46 Market participants should also be aware that as part of publishing Scheduling, Pricing and Dispatch (SPD) case files, all input information to market schedules is made publicly available the day after the relevant trading day. This information currently includes the real-time telemetry used in the formation of the schedules. Under our proposal, this would also apply to BESSs' SoC telemetry. We welcome further feedback on this.

Bid and offer prices should be linked to storage levels

- 6.47 NewPower proposed linking bid and offer prices to storage levels. This point was further explored in follow up meetings between the Authority and NewPower.

⁴⁰ Refer to the Code amendment presented in the [decision to incorporate the CACTIS](#), new clause 8.74.

⁴¹ SCADA (Supervisory Control and Data Acquisition) refers to Transpower's system for measuring, collecting and presenting real time operational information.

- 6.48 For BESS owners, future opportunities gained or sacrificed by charging or discharging a battery depend on storage levels. While BESS owners could estimate opportunity costs and values under our preferred option, they could not perfectly account for unexpected changes in storage levels after gate closure. If bid and offer prices were linked to storage levels, they would account for these changes.
- 6.49 For example, a BESS owner may place a higher price premium on discharging from lower storage levels, as doing so would involve foregoing greater future opportunities. If the BESS unexpectedly reached a lower storage level, the owner would want this higher opportunity cost reflected in subsequent dispatch.

The Authority's response

- 6.50 The Authority acknowledges this limitation of our preferred solution compared to NewPower's proposed alternative solution.
- 6.51 Under our preferred solution, a BESS owner that wanted to reduce the risk of being dispatched at suboptimal prices could reduce the likelihood of emptying its battery by shifting more MW into higher-priced offer tranches. This approach would be less efficient compared to NewPower's alternative. However, it would still allow the BESS owner to take advantage of unexpected price swings, particularly those that are more significant and generate the largest profit. This is an important aspect of our proposal, as the ability to take advantage of unexpected price swings would be much more limited if required to trade conservatively.
- 6.52 We also note that, compared to our suggested solution, NewPower's alternative would make it more difficult for the System Operator to assess system security risks and prepare mitigations after gate closure. While available quantities would vary between gate closure and dispatch under both our preferred approach and this alternative approach, under the alternative solution the prices at which those quantities clear would also vary between gate closure and dispatch. This would result in greater variation between BESS' dispatch and the dispatch predicted at gate closure.
- 6.53 Before being able to propose this alternative solution, we would need to further engage the System Operator to understand the potential system risks, and the costs of software upgrades to implement the solution alongside any enhancements required to help them manage the increased risks.
- 6.54 We would also need to better understand the level of interest among BESS owners in bidding and offering in this way. We expect that not all BESS owners would want to bid and offer under this paradigm. Some may prefer a simpler model or may want to calibrate their bid and offer prices to align with financial contract positions or other obligations—for example, pricing some offer MW at \$0 when they are required to generate to alleviate distribution network constraints. For this reason, if we adopted this alternative solution, we consider it would need to be optional rather than mandatory.
- 6.55 We therefore consider that the preferred solution at this stage is a low regrets option that provides immediate benefits while also giving us flexibility moving forward. We could investigate this alternative option further, alongside work to investigate reducing gate closure. We are interested to hear stakeholders' views on whether we should pursue this further.

There is no incentive to calibrate bids and offers with expectations

- 6.56 Genesis submitted that SoC constraints with full capacity trading would remove incentives on BESS owners to calibrate their offers with all available information. Genesis suggested this could cause inefficient use of stored energy, with dispatch determined based on non-price factors.

The Authority's response

- 6.57 We believe BESS owners would be incentivised to ensure bid and offer prices at gate closure reflect the value of using their BESSs in that trading period, accounting for the impact on stored energy levels. This would ensure they were dispatched at prices that maximise their profit opportunities.

Feedback on gate closure period

- 6.58 There were many submissions on the appropriate gate closure period and our option assessment. We have considered these carefully but remain of the view that our suggested solution should be preferred.
- 6.59 We are therefore proposing a Code amendment to implement one hour gate closure for BESSs. However, we will accelerate further investigations into reducing gate closure more broadly. This could include the use of gate closure trials to help the System Operator understand the risks of, and potential process and software upgrades to facilitate, reducing the gate closure period
- 6.60 All submitters on this point except Transpower, in its role as System Operator, considered we should reduce gate closure, either instead of or as well as enabling full capacity trading with SoC constraints. Some submitters acknowledged it would take more work to reduce gate closure at this stage or suggested reducing to 30 minutes at first and working toward even shorter gate closure in the future.

Assessment of system security risks

- 6.61 Lodestone submitted that the Authority placed too much emphasis on system security needs compared to the benefits that BESSs can deliver to the power system.
- 6.62 Contact submitted that:
- (a) the System Operator's assessment of system security risks was vague and had not been rigorously tested by the Authority
 - (b) it is important to ensure the System Operator has considered alternative technology solutions
 - (c) there should be no gate closure, or, if system security risks associated with no gate closure are still considered too high following a more rigorous assessment, gate closure should be 15 minutes.
- 6.63 The System Operator submitted that reducing gate closure would require a significant change to its tools and processes. It considered this would likely require a significant investigation and fulsome consideration of the operational impacts.

The Authority's response

- 6.64 The Authority acknowledges the points made by Lodestone and Contact and agrees that the system security risks associated with reduced gate closure should be tested more rigorously and alternative technology solutions explored.
- 6.65 At this point in time, and with the information we currently have available, we consider the benefits of reducing gate closure do not outweigh the potential risk to system security. The System Operator's tools are not currently designed to accommodate reduced gate closure.
- 6.66 We consider reducing gate closure without further updating the System Operator's tools and processes would increase the risk of a widespread loss of consumers' electricity supply. This is because the System Operator may be unable to prevent a cascade failure of the power system, a major event that could last several hours. If such a failure occurred, it could result in significant costs and lost value to businesses and residential consumers. It could also undermine confidence in the industry, resulting in less efficient investment in new generation. This could lead to less affordable electricity to consumers in the long-run due to reduced competition.
- 6.67 In our [issues and options paper](#),⁴² we indicated that we would reassess whether gate closure should be reduced once the System Operator had completed its project to update its security management tools. The System Operator's project seeks to improve its ability to assess a range of potential future power system scenarios.
- 6.68 Having considered submissions, we have decided to accelerate this work and take a more proactive approach. This reflects the preference for reduced gate closure expressed in most submissions, as well as the specific points raised by Lodestone and Contact.
- 6.69 In addition to a more robust assessment of system security risks, this future work would also require a more robust assessment of benefits, as well as an assessment of any System Operator tool upgrades that may be necessary to mitigate material system security risks.
- 6.70 We consider that moving to no gate closure could involve high costs and significant implementation time. It would require a fundamentally different approach to system security management, including the use of more conservative constraints on dispatch and a greater reliance on post-event rather than pre-event management. Any assessment of moving to no gate closure would need to consider both the implementation costs of this change and the potential impacts on market efficiency arising from the use of more conservative dispatch constraints.
- 6.71 In contrast, reducing gate closure to 30 or 15 minutes may be achievable within the existing system security management paradigm, although it may still require upgrades to the System Operator's security assessment and management toolset.
- 6.72 We will consider a range of reduced gate closure options in our future work. Our initial focus, however, is likely to be on 30 and 15-minute gate closure. These options would require smaller changes to System Operator tools and processes than having no gate closure and could therefore be implemented more quickly. We

⁴² See paragraph 6.79.

may also be better placed to understand the benefits of no gate closure as more BESSs connect to the system and trading strategies mature.

- 6.73 We will also explore the potential use of reduced gate closure trials to help the System Operator better understand operational risks and identify potential process and tool improvements.

Gate closure reductions should be applied across all technology types

- 6.74 Genesis Energy submitted that gate closure should be reduced for all technology types. Mercury similarly submitted that any reductions in gate closure should apply for all technology types. Mercury noted in its submission that some other technology types, eg run of river hydro, are similar to BESSs in that they can react quickly to new information.

The Authority's response

- 6.75 The Authority agrees that other technology types, such as run of river hydro, would also benefit from reduced gate closure. The Authority also notes the similarity between BESSs and hydro plant with short storage. In both cases, their efficient trade prices could change significantly after gate closure due to changes in expected storage levels or changes in forecast prices.
- 6.76 As such, as part of any work to investigate reduced gate closure for BESSs, we would consider reducing gate closure for hydro plant with short or no storage as well.
- 6.77 In our view, however, some technologies are more constrained by gate closure than others, and therefore our initial focus should be on these technologies. In saying that, we would also consider extending gate closure reductions to more, or all, technologies as part of our future work. In particular, this would be sensible if the incremental cost of doing so is low, after accounting for the System Operator's tool changes needed to manage reduced gate closure for BESSs and hydro plant with short or no gate closure.

Longer gate closure will not give much more certainty to System Operator

- 6.78 NewPower submitted that it does not believe a longer gate closure period for BESSs provides the System Operator with much more certainty as it is extremely difficult to predict where a BESS's SoC will end up at the end of gate closure.

The Authority's response

- 6.79 The Authority disagrees with this conclusion. We acknowledge that any differences between quantities cleared in dispatch and those predicted in the forecast schedules can impact the capability of BESSs, especially for BESSs with low storage to power capacity ratios. However, if BESS owners were able to change their bid and offer prices within gate closure, this would make it much harder for the System Operator to predict dispatch quantities.

The Authority's preferred solution does not address price aspects of the gate closure issue

- 6.80 A few submissions highlighted that, compared to reducing gate closure, the Authority's preferred solution doesn't address the issue of efficient bid and offer

prices for BESSs changing after gate closure. NewPower submitted that the Authority's preferred solution only addresses the quantity problem.

The Authority's response

6.81 The Authority acknowledged this as the key advantage of reducing gate closure compared to its preferred solution.⁴³ Despite this, we considered the benefits of our preferred solution would outweigh the benefits of the alternative solutions we considered with reduced gate closure. Depending on the alternative, this was either because our preferred solution would deliver greater efficiency benefits, or greater system security benefits, or both. Our view on this has not changed, although we now consider we should accelerate further work into reducing gate closure (as described above).

The Authority's preferred solution would still lead to conservative trading

- 6.82 Contact submitted that the Authority's preferred solution would still lead to conservative trading compared to removing gate closure.
- 6.83 Contact provided an example situation with two scenarios where final prices after gate closure could be higher than forecasts. In the first, prices peak during those periods. In the second, prices are higher than forecasts during those periods but peak in subsequent periods.
- 6.84 Contact considered there was no way a single set of offers could handle both situations. In its example, prices were offered based on the opportunity costs revealed at one hour gate closure. If the first scenario eventuated, the BESS would operate optimally. If the second scenario eventuated, it would fully discharge before the peak.
- 6.85 Contact considered BESS owners would hedge their bets by limiting the energy available in the earlier periods, to ensure they still had some available for the later periods.
- 6.86 Contact suggested removing gate closure would enable the BESS owner to take advantage of whichever situation eventuated.

The Authority's response

- 6.87 The Authority agrees that a single set of offers would not be able to capture every unexpected situation as optimally as having no gate closure.
- 6.88 However, our preferred solution would enable BESS owners to move some quantities into higher price tranches instead of limiting total offer quantities. This would improve their chances of optimal operation compared to how Contact suggests BESS owners may trade under our preferred solution or how BESS owners would trade if the rules required conservatism.
- 6.89 We also note that Contact's example assumes the forecast prices at 5pm are accurate for the next three hours. We consider this won't always be the case. Even with no gate closure, optimal operation could only be achieved with accurate forecasts, and short-term forecasts would be less accurate with reduced gate closure as BESS operation would be less certain. We therefore consider optimal

⁴³ See paragraphs 6.71 and 6.72 of our [issues and options paper](#).
Wholesale market arrangements for battery energy storage systems

trading is likely to involve conserving some energy in higher price tranches for unexpected outcomes, regardless of the gate closure period.

Removing gate closure will improve system stability by enabling BESSs to react to changes in intermittent generation

- 6.90 Contact submitted that removing gate closure would improve BESS owners' ability to counteract changes in intermittent generation, thereby reducing system volatility, rather than increasing it.

The Authority's response

- 6.91 The Authority considers that reducing gate closure for BESSs would make it more difficult for the System Operator to assess risks to system stability and prepare mitigations. We agree that, at a national level, reducing gate closure would better enable BESSs to balance intermittent generation. However, the System Operator needs to manage the system at every location across the grid. If a BESS owner reacts to a decrease in intermittent generation in one location by increasing its output in a different location, then the System Operator needs to consider the implications of both these actions, not just the net effect on national supply.
- 6.92 Currently, the System Operator can consider different scenarios for intermittent generation based on forecast probabilities. Because offer prices are set at gate closure, the System Operator is able to predict what generation would be brought on or withdrawn to replace any potential changes in intermittent generation. This would not be possible without gate closure for BESSs, because their offer prices would be unknown.

Some international markets have shorter gate closure

- 6.93 Submitters noted that some international markets, in particular the national energy market in Australia (NEM), have shorter gate closure, and that means we should be able to in New Zealand too.

The Authority's response

- 6.94 The Authority considers the ability to manage a power system with reduced gate closure depends on the market design and dispatch philosophy.
- 6.95 In the NEM, for example, we understand they have a zonal market and use a conservative constraint set to manage the power system at locations within each zone. In New Zealand, by contrast, we use dynamic constraints that are informed by, and inform (through dispatch), load and generation output at each locational node. This requires regular assessment as part of a feedback loop between schedule outputs and schedule inputs, to ensure system security and efficient locational price signals.
- 6.96 For this reason, reducing gate closure in New Zealand may require a change to a different dispatch philosophy. Before changing approach, we would need to assess the net benefit of trading off accurate constraint modelling against increasing flexibility for traders.

Difficulty monitoring gaming is not a good reason for not reducing gate closure

6.97 Genesis Energy submitted that the difficulty of monitoring trading conduct is not a good reason for not reducing gate closure for BESSs. Genesis also stated that it was not convinced that it would constitute improper trading if BESS owners submitted offer prices that minimised any reduction in wholesale prices. Contact submitted that trading conduct rules could deal with this behaviour.

The Authority's response

6.98 While we accept there would be a cost associated with increased monitoring needs, our primary concern about reducing gate closure is that it could impair the System Operator's ability to maintain stability of the power system. Limiting gaming opportunities is a secondary concern.

6.99 The Authority's concern about gaming is about the reduction in consumer benefits due to BESS owners having increased market power. We note this could occur whether or not it technically constituted a breach of trading conduct provisions.

Feedback on the need for an interim solution

6.100 Several submitters supported the need for an interim solution, a few submitters supported it subject to the details of how it would work, while one submitter stated they did not support it if it slowed down the longer-term solution. We address the key points raised by submitters below.

The Authority's suggested interim solution could invite "lazy" trading

6.101 In its submission, the System Operator expressed concern that our suggested interim solution may allow BESS traders to be "lazy" in submitting trades before gate closure. This is because BESS owners would have the ability under our suggested interim solution to update their trades after gate closure for changes in capability.

The Authority's response

6.102 As part of the Authority's proposed interim solution, BESS owners would be required to revise their bid and offer quantities before gate closure if necessary to ensure that the total bid and offer quantities immediately before gate closure do not exceed expected capability to consume or generate. We consider this would help ensure BESS owners keep their bids and offers up to date and limit the need to revise trades after gate closure.

6.103 We are also proposing to make explicit the only reasons a BESS owner would be permitted to revise their bid and offer quantities after gate closure. One such reason would be if their expected storage level has changed. However, there would be a limit: we propose that they would not be able to change quantities in the opposite direction to the change in expectations, or to change quantities by more than the change in expectations.

6.104 For example, suppose, at gate closure, a BESS owner expected to be capable of generating 100MW, but only chose to offer 80MW. If, after gate closure their expected capability reduced to 90MW, they would be permitted to reduce their offer by up to 10MW, but would not be able to increase their offered MW. This would help

confine trade revisions after gate closure, ensuring any changes for this reason are only to the extent necessary to reflect changes in expected capability.

The Authority could provide guidance as an interim measure

6.105 In its submission, NewPower suggested the Authority could provide guidance around what constituted a bona fide physical reason for revising bids and offers after gate closure. In particular, it considered BESS owners could trade more efficiently if a significant change in price from forecast constituted a bona fide physical reason.

The Authority's response

- 6.106 Rather than publishing guidance, the Authority considers it more appropriate and preferable to create interim trading arrangements for BESS owners (pending the tool upgrades necessary to implement our full proposed solution). This would provide greater clarity, reduce the risk of legal uncertainty, and enable greater benefits. This is because guidance would necessarily be limited to what could be considered permissible under the Code, which different parties may view differently. It would not conclusively resolve the uncertainty.
- 6.107 Our proposal would enable BESS owners to capture unexpectedly high prices because they could offer up to their expected capability rather than having to be conservative with offered quantities. We consider this would help address NewPower's concerns.

Additional considerations requiring updates to our proposed solution

6.108 In considering submissions, we identified additional issues that warranted updates to our proposed solution. More information about the proposed Code drafting can be found in 6.133.

It is not clear whether BESS owners can withhold energy if requested to do so in a grid emergency

- 6.109 Following consultation on our [issues and options paper](#), the Authority has identified that there may be a potential conflict in the Code that requires clarification. This conflict is between:
- (a) the requirement for a BESS owner to use reasonable endeavours to respond to a request issued by the System Operator in a grid emergency (clause 5(4) of technical Code B of Schedule 8.3).⁴⁴
 - (b) the existing rules for revising offers after gate closure, which require that the revised offer reflects expected capability.⁴⁵
- 6.110 The rules for revising offers after gate closure do not contemplate that the System Operator may request BESS owners to withhold energy in a grid emergency (such as if there was insufficient offered generation to meet demand). The System

⁴⁴ An exception to this is if the BESS owner is an excluded generating station that has not been required by the System Operator to comply with this obligation under clause 2 of Technical Code B. Another exception is that embedded BESS owners would not have these obligations in respect of their consumption; however, they would for their generation, and so could be requested to generate.

⁴⁵ Subclause 13,19AA(a) of the Code.

Operator may request this if it considers it is better to withhold some stored energy for later periods in a grid emergency that extends for more than one trading period.

- 6.111 We consider it important to clarify the trade revision rules to ensure BESS owners are able to withhold energy in a grid emergency if requested to do so by the System Operator.
- 6.112 This would help limit any disruption to consumers' electricity supply in grid emergencies.

Bid and offer arrangements do not align

- 6.113 In our [issues and options paper](#) (section 6), we recognised that some of the gate closure arrangements differed between offers and bids, with greater restrictions on revisions to offers. As discussed earlier, we are proposing to align gate closure arrangements for BESS owners' bids and offers to resolve this issue.
- 6.114 However, in developing the detail of our proposal, we have recognised that this misalignment issue is broader, as:
- (a) the nature of bids and offers differs. Specifically, bids are required to reflect expected consumption (clause 13.7(3)), whereas offers are required to not exceed expected capability (clause 13.9A).
 - (b) the revision requirements before gate closure are also stricter for offers than bids.
- 6.115 We consider these differences are mainly due to purchasers' lesser ability to control, or greater costs of controlling, operating levels of loads, compared to generators.
- (a) To ensure a dispatchable purchaser can reasonably meet its dispatch instructions, it is more important to ensure the bid reflects expected consumption than to rely on the purchaser controlling load to meet dispatch.
 - (b) The different trade revision rules reflect that generators are more heavily relied upon to maintain a stable power system due to their greater control over their assets.
- 6.116 These broader differences pose an issue for BESSs for the same reasons as the narrower issues we identified. That is because they can cause confusion for BESS operators and system coordinators and because the obligations may not be appropriate for BESSs.
- 6.117 We address this in our proposal as part of the broader gate closure issues (paragraphs 6.139 – 6.151).

The Code lacks clarity around what circumstances permit a trade revision after gate closure

- 6.118 We understand there has been some uncertainty about the current Code provisions for revising bids and offers after gate closure. While we alluded to this in our discussion of the issues in our [issues and options paper](#) (section 6), we did not explicitly recognise it as an issue.

- 6.119 On reflection, we now consider it is an issue because it has created confusion for BESS operators, potentially leading to inefficient use of BESSs or increased difficulty for the System Operator to assess system risks and prepare mitigations.
- 6.120 We also address this in our proposal as part of the broader gate closure issues (paragraphs 6.139 – 6.151).

SoC constraints in dispatch schedules would match those in forecast schedules

- 6.121 The Authority has recognised that the SoC constraints described in the [issues and options paper](#) (from paragraph 6.31) would at times cause misalignment between dispatch and forecast schedule predictions. We suggested the SoC constraint in dispatch schedules would be based on the capability to consume or generate over 5 minutes. Even with stable dispatch prices across a 30-minute trading period, this could lead, at times, to all of a BESS's ability to consume or generate being used up at the start of the period. The forecast schedules, by contrast, would implicitly spread the available energy across the trading period.
- 6.122 This would reduce the accuracy of the forecast schedules, reducing the efficiency of trading decisions and making it more difficult for the System Operator to assess power system risks and prepare mitigations.
- 6.123 For this reason, we consider that SoC constraints in the dispatch schedule should be based on the capability to consume or generate over a half hour period, to match the formulation for the forecast schedules.
- 6.124 The downside of this approach compared to our original suggestion, however, is that the amount of energy a BESS could generate or consume within a trading period could be reduced in some instances. Specifically, this could occur where the BESS only cleared in some but not all dispatch schedules within the trading period, due to variation in dispatch schedule prices across the trading period. Another alternative approach would be to base the dispatch SoC constraints on energy available over the time remaining in the trading period at the time of dispatch. We are interested to hear stakeholders' views on this matter.

State of charge constraints would account for round trip losses

- 6.125 In considering submissions we have recognised that SoC constraints would need to account for 'round-trip losses', in addition to the available energy in the battery and the starting SoC.
- 6.126 This is important because round-trip losses can be around 20%, meaning 80% of energy taken off the network can be injected back into the network. Round-trip losses occur due to:
- (a) the parasitic load used for on-site electricity needs including cooling load consumed within the BESS station.
 - (b) energy lost in:
 - (i) converting stored electro-chemical energy to electrical energy and carrying that energy to the grid point of connection
 - (ii) carrying electrical energy from the grid point of connection to the battery and converting it into stored electro-chemical energy.

- 6.127 Bids and offers are made, and dispatch instructions sent, as values that apply at the grid point of connection. Accounting for round-trip losses would ensure cleared bids and offers in the forecast and dispatch schedules reflected the amount of electricity at the point of connection to the grid. This is because SoC constraints would account for offtake from the grid that was needed to meet parasitic load or losses rather than charging the battery, or any discharging of the battery that was needed to meet parasitic load or losses instead of injecting into the grid.
- 6.128 We consider BESS owners would need to provide information to the System Operator to be used as inputs into SoC constraint calculations, as discussed in our Code amendment proposal below.
- 6.129 These additions would help ensure SoC constraints are calculated with reasonable accuracy. This would help ensure efficient dispatch that BESS owners can comply with. It would also help ensure accurate forecast schedule information. This would help the System Operator assess system security risks and prepare mitigations, and generators to make efficient decisions about committing their resource.
- 6.130 See the description of our Code amendment proposal below for the details of how we propose to implement this (paragraphs 6.133 – 6.144)

Wholesale information and trading system manager to provide new information

- 6.131 We have also identified additional changes that would need to be made to the way in which the wholesale information and trading system (WITS) manager provides information. In particular, we consider:
- (a) WITS data and displays for aggregated supply and demand information would need to account for SoC-dependent capability rather than raw offers. This would ensure that this information remained useful to traders if we implemented our proposal.
 - (b) BESS owners would need to be provided with information about how their bids and offers are being constrained in the schedules. This is necessary to enable them to update their trades to calibrate with their intended operations as forecast information changed.
- 6.132 Our proposed Code changes to support this are described below (see paragraph 6.138)

Consultation questions:

- Q8. Should BESS owners be able to withhold energy if requested to do so in a grid emergency?
- Q9. Should BESS bid and offer arrangements be aligned?
- Q10. Do you think greater clarity is needed around the circumstances which allow trade revisions after gate closure?
- Q11. Do you agree that, to align with forecast schedules, the SoC constraint that applies in the dispatch schedule should be based on energy availability over a half hour period?

If not, do you think it should be based on energy availability over a 5 minute period, or the energy availability over the time remaining before the end of the trading period?

Q12. Should state of charge constraints account for round trip losses? If not, why not?

Q13. Do you agree that the WITS manager and clearing manager require SoC constrained bid and offer information to perform their functions?

We propose to amend the Code to align gate closure arrangements, introduce state of charge constraints and enable full capacity trading

6.133 For the purposes of this section, we use the term ‘forecast schedules’ as the collective term for the non-response and price-responsive schedules.

We propose to amend the Code to align gate closure arrangements across connection types and operational states

6.134 After considering submissions and for the reasons set out in the above sections, the Authority considers the gate closure arrangements should be the same for BESSs across their operational states and connection type (Table 8).

Table 8: Summary of our proposal to align gate closure arrangements

Our proposal	Rationale	Code drafting (Appendix A)
One hour gate closure period for BESS' bids (charging) and offers (discharging) for both grid-connected BESSs and embedded BESSs	To reduce inefficient incentives and reduce confusion. Rationale for one hour gate closure is explained from paragraph 6.64.	Amended definition of ‘gate closure period’ in clause 1.1. of the Code.

6.135 Our proposed rules for finalising trades at gate closure and revising after gate closure are described further at paragraph 6.144.

Consultation questions:

Q14. Do you agree with our proposal to make gate closure arrangements the same between operational states and between grid-connected and embedded BESSs?

Q15. If we decided to make gate closure one hour for embedded BESSs, do you consider a legacy clause may be warranted? If so, what do you consider the details of that clause should be?

We propose to amend the Code to introduce SoC constraints

Proposed inputs into SoC constraints

6.136 To ensure the System Operator has the information necessary to calculate SoC constraints, we propose BESS owners would be required to provide the information listed in Table 9.

Table 9: Summary of proposed BESS information requirements to calculate state-of-charge constraints

Our proposal	Rationale	Proposed Code drafting (Appendix A)
Provide telemetered information on current SoC levels	To provide starting SoC values for calculating SoC constraints in dispatch schedules, and to be used as an input into calculating starting SoC for forecast schedules.	None needed. From 1 July 2026, the System Operator requires participants to provide certain information under the Connected Asset Commissioning, Testing and Information Standard (CACTIS). ⁴⁶
Provide maximum and minimum storage limits via fields on the bid and offer form.	To provide SoC limits, for use in calculating SoC constraints on consumption and generation.	Proposed new trade form: Schedule 13.1 Form 10, "Bidirectional form"
<p>Provide a variable (per MW) loss factor and a fixed loss factor for each trading period to the System Operator as part of their trade form.</p> <p>Each BESS owner would be required to ensure these values, taken together, would constitute a reasonable estimate of the losses they expect to incur in the trading period for any given MWh dispatched.</p>	<p>To ensure SoC calculations are accurate. Having a fixed and a variable factor would:</p> <ul style="list-style-type: none"> • enable BESS owners to capture different aspects of round-trip losses • ensure BESS owners could account for offtake or battery drain to meet site load and cooling load while idle • provide the flexibility needed to accommodate different BESSs. This is because we understand the measurement data and methods available to different BESS owners will differ. 	<ul style="list-style-type: none"> • Proposed new trade form: Schedule 13.1 Form 10, "Bidirectional form" • Amended clauses 13.9 and 13.13 which would require that a trade for a BESS contains the information required in the trade form. • Proposed new provisions in clauses 13.58A(1)(ab), 13.58A(2)(ab), and 13.69B(1)(k) which state the information required as inputs in the dispatch and forecast schedules

Calculation of SoC constraints

6.137 We propose to require the System Operator to calculate:

- (a) the starting SoC for future periods in the forecast schedules

⁴⁶ [Connected Asset Commissioning, Testing and Information Standard \(CACTIS\)](#)

- (b) SoC constraints to constrain cleared consumption and sustained instantaneous reserve in the forecast and dispatch schedules (Table 10).

Table 10: Summary of proposed System Operator calculations for forecast and dispatch schedules

Our proposal	Rationale	Proposed Code drafting (Appendix A)
<p>Calculate the starting SoC for future periods in the forecast schedules by:</p> <ul style="list-style-type: none"> • using telemetered information on current SoC • adjusting the current SoC for the change in stored energy in the intervening periods, accounting for: <ul style="list-style-type: none"> ○ cleared generation and consumption ○ fixed and variable losses provided by the BESS owner 	<p>To enable SoC calculations in the forecast schedules and help ensure they are reasonably accurate</p>	<p>Proposed new subclauses 9A(d), , 10(b) and in Schedule 13.3 The Modelling System</p>
<p>Calculate SoC constraints to limit the energy available:</p> <ul style="list-style-type: none"> • to provide generation and consumption for half an hour • to provide sustained instantaneous reserves for 15 minutes • based on the difference between the storage limits provided by the BESS owner and <ul style="list-style-type: none"> ○ for dispatch schedules, the starting SoC as indicated by the telemetered data provided by the BESS owner ○ for forecast schedules, the predicted starting SoC calculated by the System Operator (based on the current telemetered data, adjusted for expected changes in the intervening trading periods). 	<p>To constrain cleared consumption and sustained instantaneous reserve in the forecast and dispatch schedules based on energy available</p>	

Box 4: How might state of charge constraints work?

The constraint on injections (generation and reserve, after accounting for losses):

$$(1 + \text{variable_loss_factor}) * (\text{Generation_MW} * 0.5\text{hr} + \text{SIR_MW} * 0.25\text{hr}) + \text{fixed_losses} \leq \text{MWh min} - \text{starting state of charge}$$

The constraints on offtakes (consumption and losses):

$$(1 + \text{variable_loss_factor}) * (\text{Consumption_MW} * 0.5\text{hr}) - \text{fixed_losses} \leq \text{MWh max} - \text{starting state of charge}$$

The calculation of starting state of charge in forecast schedules:

$$\text{Predicted starting state of charge for next period} = \text{starting state of charge} + (1 + \text{variable_loss_factor}) * (\text{Consumption_MW} * 0.5\text{hr} - \text{Generation_MW} * 0.5\text{hr} - \text{fixed losses})$$

Consultation question:

Q16. Do you agree with how we propose to incorporate round-trip losses in calculating state of charge constraints? If not, is there a better alternative to ensure state of charge constraint accuracy?

Constrained bid and offer information for WITS and clearing manager

6.138 We propose the requirements below (Table 11) to ensure ‘capped’ bid and offer quantities are used by the clearing manager and WITS manager where appropriate. These capped values would represent the quantities achievable after applying SoC constraints.

Table 11: Summary of proposed approach to sharing capped bid and offer information

Our proposal	Rationale	Proposed Code drafting (Appendix A)
System Operator to provide capped bid and offer quantities, from forecast and dispatch schedules to the clearing manager and WITS manager.	To enable the clearing manager to calculate meaningful constrained off amounts. To enable the WITS manager to: <ul style="list-style-type: none"> reflect the capped bids and offers in any published information that uses aggregated bids and offers provide the capped quantities to BESS traders so they can calibrate their trading 	Amendment to Schedule 13.3B - Information for schedules prepared by system operator, clause 1. Amendment to clause 13.105A.
Clearing manager to use capped bids and offers when calculating constrained off amounts	To ensure constrained off amounts are accurately calculated	Amended clause 13.194

We propose to amend the Code to enable full capacity trading

- 6.139 The Authority's Code amendment proposal for full capacity trading is described below, with the proposed Code drafting set out in Appendix A.
- 6.140 We note, under our proposal, BESS owners would not have the ability to revise their trades after gate closure when SoC differs from expectations. This is because part of the purpose of SoC constraints is to limit trade revisions after gate closure, so the System Operator has good visibility of potential outcomes. SoC constraints enable the BESS owner to utilise the full capability of its assets without needing to revise its trades after gate closure.
- 6.141 In developing this proposal, we have adapted existing obligations, where relevant, to the needs of our proposal. In addressing the issue of misalignment between bid and offer obligations, we have chosen to base BESS owners' bidding and offering obligations on existing offer obligations. This reflects the similar needs for accurate information between BESS owners and generators, as they are equally relied upon as controllable assets. It also reflects that the bid and offer information required under our proposal, being capacities and limits, is easy to predict compared to information on expected consumption required in (other) purchasers' bids.

Box 5: Terminology

For the purposes of these requirements:

- **consumption capacity and generation capacity** mean the maximum continuous power that a BESS owner can consume or generate, respectively, at the point of connection to the grid at which they are submitting their bids and offers
- **maximum and minimum storage limit** mean the maximum and minimum amount of energy that the BESS owner can store in its battery
- **where the word 'adjusted' precedes the terms consumption capacity, generation capacity, maximum storage limit, and minimum storage limit**, it means the relevant capacity or limit is adjusted:
 - to account for outages of plant and equipment
 - to account for distribution network constraints (in the case of adjusted capacities)
 - to ensure, under any reasonably foreseeable circumstances, the BESS owner can satisfy warranty conditions they intend to comply with that are imposed by the original equipment manufacturer.

- 6.142 Our proposals to require trades based on adjusted capacities and limits are designed to limit frequent trade revisions for warranty reasons, and to help provide clarity on what conditions permit trade revisions after gate closure. By accounting for reasonably foreseeable circumstances affecting warranty conditions, a BESS owner would only need to revise their trades to meet warranty conditions in reasonably unforeseeable circumstances.

Requirements for setting bids, offers and reserve offers

6.143 We propose BESS owners have the requirements set out in Table 12 when setting their bids, offers, and reserve offers.

Table 12: Summary of proposed requirements for each BESS owner when setting bids, offers, and reserve offers

Our proposal	Rationale	Proposed Code drafting (Appendix A)
To ensure total bid and offer quantities do not exceed their expected adjusted consumption and generation capacity, respectively, for their BESS.	Together, along with the application of SoC constraints and the trade revision provisions described in the subsequent sections, these proposals would help ensure cleared trade quantities in forecast and dispatch schedules do not exceed expected capability.	New clause 13.9AA (proposed final Code amendment version)
To ensure that the offered MWh max and MWh min values do not exceed their expected adjusted maximum and minimum storage limits, respectively, for their BESS.	These bid and offer obligations are the same as the existing obligation for generators' offers ⁴⁷ except reflecting adjusted capacities and limits rather than capability.	
To ensure total interruptible load offer and generation reserve offer quantities do not exceed a reasonable estimate of their expected adjusted consumption and generation capacity, respectively, for their BESS.	These reserve offer obligations are consistent with existing obligations but have been amended to reflect the requirement not to exceed adjusted capacities, rather than a reasonable estimate of availability. ⁴⁸	

Requirements for revising bids, offers, and reserve offers

6.144 We propose BESS owners be subject to the requirements and permissions set out in Table 13 when revising their bids, offers, and reserve offers. We note, under our proposal, permissions to revise the maximum output (including overload) parameter (MW max) in the generation offer would help ensure the sum of cleared generation and generation reserve are feasible.⁴⁹

⁴⁷ Clause 13.9A.

⁴⁸ Clause 13.38(2)(c).

⁴⁹ The market scheduling and dispatch tool constrains the sum of generation and generation reserve to be no more than the MW max. Similarly, Interruptible load is constrained in the market scheduling and dispatch tool to be no more than cleared consumption.

Table 13: Summary of proposed longer-term requirements for BESS owners when revising bids, offers and reserve offers

Our proposal	Rationale	Proposed Code drafting (Appendix A)
BESS owners are <u>required</u> to revise their bids and offers <u>before gate closure</u> if necessary to:		
Ensure their total bid and offer quantities immediately before gate closure do not exceed their expected adjusted consumption capacity or expected adjusted generation capacity, respectively, for their BESS.	Part of the rationale for full capacity trading with SoC constraints is to reduce the need for trade revisions after gate closure. These two requirements would achieve this goal by ensuring BESS owners' bid and offer information going into gate closure is as accurate as possible.	New clause 13.18B(1)(a) (proposed final Code amendment version)
Ensure offered MWh max and MWh min values immediately before gate closure do not exceed the battery's expected adjusted maximum storage limit or expected adjusted minimum storage limit, respectively, for their BESS	This would help ensure the System Operator had the information it needs to assess system security risks and prepare mitigations.	New clause 13.18B(1)(b) and (c) (proposed final Code amendment version)
BESS owners are <u>required</u> to immediately revise their bids, offers, and reserve offers if, <u>at any time before or after gate closure</u>,⁵⁰		
<p>The total bid or offer quantities exceed, by more than 5 MW, their expected adjusted consumption capacity or expected adjusted generation capacity, respectively, for their BESS.</p> <p>After gate closure, this would also require one of our proposed exhaustive set of conditions for post-gate-closure trade revisions to apply (which we expect to be rare)</p>	<p>This would help ensure, along with SoC constraints, that cleared trade quantities in forecast and dispatch schedules remain reasonably feasible across time.</p> <p>It would provide clarity about when trade revisions can be made after gate closure</p> <p>This obligation, apart from the requirement for certain conditions to apply post-gate-closure, is the same as the existing obligations on generator offers⁵¹ except that it would apply to adjusted capacities and limits rather than capability.</p>	New clause 13.18B(2)(a) (proposed final Code amendment version)

⁵⁰ We note that, after gate closure, this requirement should only need to be invoked if one of the below conditions for revising quantities after gate closure applied.

⁵¹ Clause 13.18.

<p>The offered MWh maximum and MWh minimum values exceed, by more than 2.5 MWh, the battery's expected adjusted maximum storage limit or expected adjusted minimum storage limit, respectively, for their BESS.</p> <p>After gate closure, this would also require one of the proposed exhaustive set of conditions for post-gate-closure trade revisions to apply (which we expect to be rare).</p>	<p>This would help ensure, along with SoC constraints, that cleared trade quantities in forecast and dispatch schedules remain reasonably feasible across time.</p> <p>This obligation, apart from the requirement for certain conditions to apply post-gate-closure, is the same as the existing obligations on generator offers except that it would apply to adjusted limits rather than capability.</p> <p>We have used 2.5MWh to align with the 5MW requirement in generators' offer obligations and because the proposed SoC constraints are based on capability over half an hour.</p>	<p>New clause 13.18B(2)(b) and (c) (proposed final Code amendment version)</p>
<p>The total MW in the interruptible load reserve offer or generation reserve exceeds a reasonable estimate of the adjusted consumption capacity or adjusted generation capacity, respectively.</p>	<p>This would help ensure reserve offers remain feasible across time and limit the need for trade revisions after gate closure.⁵²</p> <p>This is the same as existing obligations in relation to reserve offers but reflects the requirement not to exceed adjusted capacities rather than reflecting availability.⁵³</p>	<p>Amended clause 13.46 (proposed final Code amendment version).</p>
<p>BESS owners are permitted to revise bid and offer quantities, MWh max and min values, and the MW max after gate closure only if:</p>		
<p>Necessary due to a bona fide physical reason.</p> <p>The bids and offers must only be revised to the extent necessary to ensure the new values reflect expected adjusted consumption and generation capacities and expected adjusted maximum and minimum storage limits, for their BESS.</p>	<p>Bona fide physical reasons as defined in the Code include reasonably unforeseeable changes in circumstances, and circumstances where personnel or plant safety is at risk. It is important participants can respond to these situations and revise their trades to ensure cleared quantities are not misaligned with their response.</p>	<p>New clause 13.19AAA(1)(a) and 13.19AB(1) (proposed final Code amendment version)</p>

⁵² We consider the existing reserve offer revision obligations represent a higher standard than those for offers and bids. This is because, under clause 13.46(3), reserve offers must be immediately revised whenever they no longer represent a reasonable estimate of availability, whereas bids and offers, under clauses 13.18 and 13.19B must be revised if expectations change. Because we are basing our reserve offer revision provision on the existing obligations, we consider there is no need for a separate provision to ensure reserve offers are accurate at gate closure, despite proposing such provisions for bids and offers.

⁵³ Clause 13.46(3).

	<p>Both generators and purchasers are permitted to revise their trades in this circumstance.⁵⁴</p> <p>Our proposal for how quantities can be revised is the same as existing requirements for revising offer quantities in these circumstances, except that our proposal would apply to capacities and limits rather than capabilities.⁵⁵</p>	
<p>A bona fide physical reason that necessitated a trade revision ceased to exist, and the first trading period after the bona fide physical reason ceases to exist is within 24 hours after it arose.</p> <p>The total change in bid and offer quantities or maximum and minimum storage limits must be the same as the change that resulted from the original bona fide physical reason.</p>	<p>Both generators and purchasers are permitted to revise their trades in these circumstances.⁵⁶</p> <p>Our proposal for how a BESS's quantities can be revised is the same as existing requirements that apply for bids and offers in these circumstances except that our proposal would apply to capacities and limits rather than capabilities.⁵⁷</p>	<p>New clause 13.19AAA(1)(c) and 13.19AB(2) (proposed final Code amendment version)</p>
<p>The System Operator has issued a formal notice of a grid emergency.</p> <p>Revised values must not exceed expected adjusted consumption and generation capacities and expected adjusted maximum and minimum storage limits.</p>	<p>Both generators and purchasers are permitted to revise their trades in this circumstance.⁵⁸</p> <p>However, the way the quantities can be revised in this circumstance differs from the existing requirement for generators⁵⁹ because it would enable BESS owners to withhold capacity if making a revision. This would address the issue of BESS owners needing to be able to withhold energy if requested to do so in a grid emergency</p>	<p>New clause 13.19AAA(1)(b) and 13.19AB(1) (proposed final Code amendment version)</p>

⁵⁴ Clause 13.19(a) for offers and clause 13.19A(1B)(a) for bids.

⁵⁵ Clause 13.19AA.

⁵⁶ Clause 13.19(c) for offers and clause 13.19A(1B)(c) for bids

⁵⁷ Clauses 13.19(c) and 13.19AA for offers and clause 13.19A(1B)(c) for bids

⁵⁸ Clause 13.19(b) for offers and clause 13.19A(1B)(b) for bids

⁵⁹ Clause 13.19AA.

	(see paragraph 6.110). This would help prevent or limit disruptions to consumers' electricity supply.	
<p>The BESS owner's traded quantities and/or limits at gate closure exceeded expected adjusted capacities and limits, for their BESS</p> <p>The bids and offers must be revised only to the extent necessary to ensure the new values reflect expected adjusted consumption and generation capacities and expected adjusted maximum and minimum storage limits.</p> <p>Revising a trade for this reason would not however relieve the BESS owner of liability for any breach of their pre-gate closure requirements under clauses (para 6.35 a and b).</p>	<p>Even though a BESS owner, under our proposal, would be required to ensure its traded quantities and limits at gate closure do not exceed its expected adjusted capacities and limits, it is important to ensure the BESS owner could revise its trades in circumstances where it had not met this requirement.</p> <p>This would help ensure the System Operator can maintain a stable and resilient power system. Offer revisions for similar reasons are implicitly permitted under existing clause 13.18(2A).</p> <p>We consider it appropriate to explicitly add this condition so that there is an exhaustive set of conditions under which trade revisions may be made after gate closure. This would provide clarity about the circumstances which permit revisions after gate closure.</p> <p>Our proposal to limit the extent to which BESS owners could revise their trades in these circumstances would mean the least disruption to the scheduling and dispatch process.</p>	New clause 13.19AAA(1)(d), (e), (f) and (3) and 13.19AB(1) (proposed final Code amendment version)
<u>After gate closure:</u>		
Any offer quantity reduction must come from the highest priced tranche first	This would mimic existing offer revision requirements for generators under clause 13.19AA. For offers revised after gate closure, this requires that any quantity reduction be taken from the highest priced tranches first. This prevents generators from gaming prices to their advantage and limits any change in the quantity they are cleared, providing the least disruption to the System Operator's processes. If they were able to take from lower priced tranches first, they could make it more likely that a higher priced tranche cleared. The same rationale applies to offer quantity reductions for BESSs.	New clause 13.19AB(3)(a) and (b) (proposed final Code amendment version)

Any bid quantity reductions must come from the lowest price tranche first. ⁶⁰	The same rationale as above applies here, adjusted for the fact high priced bids, like low priced offers, clear first.	New clause 13.19AB(4)(a) and (b) (proposed final Code amendment version)
Amending the definition of bona fide physical reason to:		
include a reasonably unforeseeable change in circumstances that is expected to result in a breach of warranty conditions imposed by the equipment manufacturer.	This recognises that it can be difficult to predict when a warranty limit may be reached. BESS owners would need to account for the expected impact of warranty conditions in ensuring their original bids and offers do not exceed their expected capability to consume or generate at the point of connection. They should only need to rely on this provision in rare circumstances.	Amended definition of 'bona fide physical reason', clause 1.1
exclude a reasonably unforeseeable change in market dispatch that results in SoC differing from expectations.	Trade revisions would not be required in these circumstances because the impact on capability would have already been accounted for by SoC constraints.	Amended definition of 'bona fide physical reason', clause 1.1

⁶⁰ While lower priced offer tranches clear first, higher priced bid tranches clear first.

Consultation questions:

- Q.17. Are there any other factors that need to be taken into account in adjusted capacities and limits?
- Q.18. Are there any other reasons why a BESS owner should be able to, or need to, revise their trades after gate closure? If so, what?
- Q.19. Do you agree with our proposal to address issue 3?
- Q.20. Do you have any comments on our proposed Code drafting to address issue 3?

We propose to amend the Code to give effect to an interim solution

- 6.145 The implementation of our preferred option depends on introducing SoC constraints. The System Operator has estimated this would take approximately 17 months. For this reason, we are also proposing an interim solution.
- 6.146 One of the primary purposes of the longer-term solution, and the purpose of the interim solution, is to enable efficient use of BESSs by ensuring BESS owners do not have to be overly conservative when submitting trades at gate closure.
- 6.147 However, compared with the longer-term proposal, the interim proposal would provide the System Operator with less certainty about future BESS' operations. This would make it more challenging to assess system security risks and prepare mitigations.
- 6.148 Our interim proposal is intended to enable similar use of BESSs as the longer-term proposal, while the necessary system changes are developed for that proposal. The key difference is in how BESS owners are enabled to use their full capability:
- (a) under our longer-term proposal, this would be achieved by allowing full capacity trading and applying SoC constraints to determine capability
 - (b) under our interim proposal, this would be achieved by allowing trades to reflect expected capability (accounting for expected storage levels) and enabling post gate-closure trade revisions when expected capability changes due to changes in storage levels.
- 6.149 We are proposing to amend the Code to this effect, with some additional changes to address our updates to the issues, by:
- (a) aligning bid obligations with offer obligations for consistent arrangements across the BESS operational states. In doing this we have reflected that BESSs are controllable assets like other generators, but their capability is not easily predicted,
 - (b) enabling BESS owners to retain withheld capacity in a grid emergency,
 - (c) clarifying when trade revision after gate closure is permitted (Table 14 below).

Box 6: adjusted capability

For the purposes of our proposal below, **adjusted capability** means the capability to consume or generate, at the point of connection to the grid at which the BESS owner trades, after accounting for any reasonably foreseeable circumstances affecting its ability to satisfy warranty conditions it intends to comply with that are imposed by the original equipment manufacturer.⁶¹

- 6.150 Our proposals to require trades based on adjusted capability are designed to limit frequent trade revisions for warranty reasons, and to help provide clarity on what conditions permit trade revisions after gate closure. By accounting for reasonably foreseeable circumstances affecting warranty conditions, a BESS owner would only need to revise its trades to meet warranty conditions in reasonably unforeseeable circumstances.
- 6.151 We do not consider any changes are required to reserve offer revision rules. This is because existing rules combined with the bid and offer revision rules under our proposal would be sufficient to enable BESS owners to ensure cleared reserve remained feasible. This includes, under our proposal, permissions to revise the maximum output (including overload) parameter (MW max) in the generation offer.⁶² The market scheduling and dispatch tool constrains the sum of generation and generation reserve to be no more than the MW max.

⁶¹ While, under our longer-term proposal, the adjusted capacity and limits terminology explicitly accounted for outages and network constraints, this is not needed for adjusted capability. This is because adjusted capability implicitly accounts for these effects because they impact capability at the point of connection to the grid.

⁶² Clause 13.46(3) requires reserve offers to be immediately revised if the MW specified in any price band in the reserve offer no longer represents a reasonable estimate of the instantaneous reserve available.

Table 14: Summary of proposed interim requirements for BESS owners when revising their bids and offers

Our proposal	Rationale	Proposed Code drafting (Appendix A)
BESS owners are required to		
Ensure their bid and offer quantities do not exceed a reasonable estimate of their expected adjusted capability to consume and generate, respectively.	This approach is the same as the existing obligations on generator offers and consistent with existing bid obligations, except that our proposal is based on adjusted capability rather than just capability. ⁶³	New clause 13.9AA (proposed interim Code amendment version)
Not revise bid and offer prices after gate closure	This is true for all participants currently, so this would not constitute a policy change. We have listed it here for completeness.	Amended clause 13.17 and 13.19A
<p>Immediately revise their bid and offer quantities, at any time before or after gate closure, if the total bid or offer quantities exceed, by more than 5 MW, a reasonable estimate of their expected adjusted capability to consume or generate.</p> <p>After gate closure, this requirement is expected to only be invoked if one of the below conditions for revising quantities after gate closure applied.</p>	This is the same as the obligation that currently applies to generators, except that our proposal is based on adjusted capability rather than just capability. ⁶⁴ By contrast, higher thresholds apply to dispatchable purchasers. We consider it is appropriate to use these lower thresholds for BESS owner bids and offers because BESSs are controllable assets, and BESS owners are able to identify when their expected capability has changed. Even though capability can be difficult to predict, BESS owners are able to form a view of their expected capability.	New clause 13.18B(2) (proposed interim Code amendment version)
Revise their bid and offer quantities <u>before gate closure</u> if necessary to ensure that the total bid and offer quantities immediately before gate closure do not exceed a reasonable estimate of their expected capability to consume or generate.	This would help ensure bids and offers do not need to be revised after gate closure due to “lazy trading”. This responds to the concern raised by the System Operator in its submission. This requirement would help ensure the System Operator had the information it needed to assess system security risks and prepare mitigations.	New clause 13.18B(1) (proposed interim Code amendment version)

⁶³ Purchasers are required to specify a reasonable expectation of the quantities they expect to consume at the price bands in the bid. While there is no reference to capability, it is implicit that these quantities will not exceed expected capability.

⁶⁴ The Code currently includes revision clauses for both generators and purchasers that apply when quantities change beyond specified thresholds. Compared to generators, bids are subject to a higher threshold, reflecting the greater difficulty purchasers face in forecasting their quantities and the lesser reliance on their compliance with dispatch given their inherent variability.

Our proposal	Rationale	Proposed Code drafting (Appendix A)
BESS owners are permitted to revise bid and offer quantities and the MW max after gate closure <u>only</u> if		
<p>Necessary due to a bona fide physical reason</p> <p>Bid or offer quantities must only be changed to the extent necessary to ensure new quantities reflect a reasonable estimate of expected adjusted capability (<i>same as existing requirements for offers</i>).⁶⁵</p>	<p>Bona fide physical reasons as defined in the Code include reasonably unforeseeable changes in circumstances, and circumstances where personnel or plant safety is at risk. These are expected to be rare. It is important participants can respond to these situations and revise their trades to ensure cleared quantities are not misaligned with their response.</p> <p>Both generators and purchasers are able to revise their trades for bona fide physical reasons under the existing arrangements.</p> <p>Our proposal for how trades can be revised in these circumstances is the same as that for generators, except that our proposal reflects adjusted capabilities rather than just capabilities.</p>	<p>New clause 13.19AAA(1)(a) and 13.19AB(1) (proposed interim Code amendment version)</p>
<p>A bona fide physical reason that necessitated a trade revision has ceased to exist, and the first trading period after the bona fide physical reason ceases to exist is within 24 hours after it arose</p> <p>Total change in bid and offer quantities must be the same as the change that resulted from the original bona fide physical reason (<i>same as current requirement for bid and offer revisions under this condition</i>)⁶⁶.</p>	<p>These are the same obligations as currently apply for generators and purchasers. We have listed them here for completeness.</p>	<p>New clause 13.19AAA(c) and 13.19AB(2) (proposed interim Code amendment version)</p>
<p>The System Operator issued a formal notice of a grid emergency.</p>	<p>Both generators and purchasers can revise trades for this reason under existing arrangements.</p>	<p>New clauses 13.19AAA(1)(b) and 13.19AB(1) (proposed</p>

⁶⁵ See clause 13.19AA.

⁶⁶ See clauses 13.19A(1B)(c) and 13.19(1)(c) and 13.19(2).

Our proposal	Rationale	Proposed Code drafting (Appendix A)
<p>The revised bids and offers must not exceed a reasonable estimate of expected capability.</p>	<p>However, our proposal differs from the current requirements for generators and purchasers⁶⁷ in that it would enable BESS owners to withhold capacity if making a revision. This would address the issue of BESS owners needing to be able to withhold energy if requested to do so in a grid emergency (see paragraph 6.110). This would help prevent, or limit, disruptions to consumers' electricity supply.</p>	<p>interim Code amendment version)</p>
<p>Their traded quantities and/or limits at gate closure exceeded expected adjusted capability for their BESS.</p> <p>The revised bid or offer quantities must reflect a reasonable estimate of expected adjusted capability.</p> <p>Revising a trade for this reason would not relieve the participant of a breach of their original requirements to ensure their trades did not exceed a reasonable estimate of expected adjusted capability.</p>	<p>Even though a BESS owner, under our proposal, is required to ensure its traded quantities at gate closure do not exceed its expected adjusted capability, it is important to ensure the BESS owner can revise its trades in circumstances where it had not met this requirement. This would help ensure the System Operator can maintain a stable and resilient power system.</p> <p>While this condition is not explicitly accounted for in existing bid and offer revision rules, offer revisions for similar reasons are implicitly permitted under clause 13.18(2A). We consider it appropriate to explicitly add this condition so that we have an exhaustive set of conditions under which trade revisions may be required after gate closure.</p> <p>Our proposal for how trades can be revised in these circumstances would lead to the least disruption to the scheduling and dispatch process.</p>	<p>New clause 13.19AAA(1)(d) and 13.19AB(2) (proposed interim Code amendment version)</p>
<p>Expected state of charge differs from that expected at gate closure.</p> <p>The revised MW in the bid or offer must not:</p> <ul style="list-style-type: none"> • exceed a reasonable estimate of the MW that the BESS owner expects to be capable of consuming or generating • be <i>greater</i> than the MW specified in the original bid or offer if there was a <i>decrease</i> 	<p>This would help ensure efficient use of BESSs by removing the need to trade conservatively.</p> <p>The limitations on revising trades in these circumstances would mean the BESS owner</p> <ul style="list-style-type: none"> • could continue to withhold previously withheld capacity. • would be unable to use a change in capability as an excuse to withdraw further capacity or release previously withheld capacity. 	<p>New clauses 13.19AAA(1)(e) and 13.19AB(3) (proposed interim Code amendment version)</p>

⁶⁷ The current requirements are that bids and offers revised after gate closure reflect expectations.

Our proposal	Rationale	Proposed Code drafting (Appendix A)
<p>in expected capability from the original bid or offer,</p> <ul style="list-style-type: none"> • be <i>lesser</i> than the MW specified in the original bid or offer if there was an <i>increase</i> in expected capability from the original bid or offer, • differ from the MW in the original bid or offer by more than the change in expected capability from the original bid or offer. 	<p>This would provide flexibility for BESSs, and minimise uncertainty for the System Operator by ensuring the changes after gate closure under this provision reflect no more than the change in capability.</p>	
After gate closure:		
<p>Any offer quantity reduction must come from the highest priced tranche first.</p> <p>(This is the same as in our longer-term proposal)</p>	<p>This would mimic existing offer revision requirements under clause 13.19AA for generators. For offers revised after gate closure, this clause requires that any quantity reduction be taken from the highest price tranches first. This prevents generators from gaming prices to their advantage and limits any change in the quantity they are cleared, providing the least disruption to the System Operator's processes. If they were able to take from lower priced tranches first, they could make it more likely that a higher priced tranche cleared.</p>	<p>New clause 13.19AB(5)</p>
<p>Any bid quantity reductions must come from the lowest price tranche first.⁶⁸</p> <p>(This is the same as in our longer-term proposal).</p>	<p>The same rationale as above applies here, adjusted for the fact high priced bids, like low priced offers, clear first.</p>	<p>New clause 13.19AB(5)</p>
Amending the definition of bona fide physical reason to include:		
<p>A reasonably unforeseeable change in circumstances that is expected to result in a breach of warranty conditions imposed by the equipment manufacturer (new clause 13.19AB).</p>	<p>Recognise that it can be difficult to predict when a warranty limit may be reached.</p>	<p>Amended definition of 'bona fide physical reason', clause 1.1</p>

⁶⁸ While lower priced offer tranches clear first, higher priced bid tranches clear first.

Our proposal	Rationale	Proposed Code drafting (Appendix A)
(This is the same as in our longer-term proposal).	Because of our proposed requirement for trades at gate closure to reflect expected adjusted capability, BESS owners should only need to rely on this rule in rare circumstances.	

Consultation questions:

Q21. Are there any other factors that need to be taken into account in adjusted capabilities under our interim proposal?

Q22. Are there any other reasons why a BESS owner should be able to, or need to, revise their trades after gate closure under our interim proposal? If so, what are these reasons?

Q23. Do you agree with our interim proposal to address issue 3?

Q24. Do you have any comments on our proposed Code drafting for our interim proposal to address issue 3?

7 Issue 4: Constrained off payments

Issues with the existing arrangements

- 7.1 Constrained off situations can occur due to:
- (a) a plant being dispatched out of merit order by the System Operator
 - (b) misalignment between the final price and dispatch prices.⁶⁹
- 7.2 Most, if not all, constrained off situations for dispatchable purchasers occur due to misalignment between the final price and dispatch prices.⁷⁰
- 7.3 Constrained off payments are only paid to dispatchable purchasers, and to generators when providing frequency keeping services.
- 7.4 Constrained off payments to dispatchable purchasers are intended to incentivise:
- (a) participation in dispatchable demand
 - (b) efficient dispatch and pricing.
- 7.5 However, in our [issues and options paper](#) (section 4), we considered that BESSs did not need constrained off payments to:
- (a) incentivise participation (as the Authority is proposing that BESSs be dispatchable when charging)⁷¹
 - (b) encourage BESSs to submit efficient bid prices (as these incentives are already in place).
- 7.6 We also identified that constrained off compensation represents a small proportion of wholesale market profits for existing BESSs.⁷²

Preferred option: BESSs should not receive constrained off compensation

- 7.7 In our [issues and options paper](#) (section 7), we suggested that BESS owners should not receive constrained off compensation when charging. We considered that removing constrained off payments to BESS owners would level the playing field between different technologies participating in the market for the purpose of selling electricity.

Submissions and responses

- 7.8 Submitters expressed a range of opinions about the proposed removal of constrained off payments for BESSs when charging. We address the key views raised by submitters below.

⁶⁹ Final prices are determined as the time weighted average of prices calculated in dispatch schedules within the half hour trading period.

⁷⁰ See Appendix C of our [issues and options paper](#) for a full explanation of constrained off situations.

⁷¹ See issue 1.

⁷² We have estimated that constrained off payments represent less than 1% of the total energy and reserve revenue of the first BESS connected to the system.

Requiring BESS to be dispatchable should mean they receive constrained off payments

- 7.9 NewPower and Genesis submitted in favour of retaining constrained off payments for BESSs if they are required to be dispatchable while charging. See paragraph 4.24 for more details.

The Authority's response

- 7.10 As outlined earlier in this paper (issue 1), we consider there is a strong case to require BESSs to be dispatchable when charging. Most submitters agreed with this in principle. Generators are required to be dispatchable for the same reasons we are proposing BESSs should be required to be dispatchable when charging. However, we note that generators do not receive constrained off payments (except in the case of frequency keeping). We considered, to align with other participants in the business of selling electricity, BESS owners should not receive constrained off payments.

Removing constrained off payments could affect BESS bidding behaviour

- 7.11 Submitters had mixed views about whether bidding behaviour by BESS owners would differ depending on whether or not they received constrained off payments.

The Authority's response

- 7.12 The Authority considers it is possible that some BESS owners would alter their bidding behaviour if they do not receive constrained off payments. However, we consider this would be uncommon because it would be a high-risk strategy. BESS owners would need to be able to predict final prices and, if they did not, they could end up consuming at prices they were not willing to pay.

BESSs should be compensated for lost opportunities

- 7.13 A few submitters considered that BESS owners should receive constrained off payments because these payments represent lost profit opportunities. As Transpower noted, being constrained off to charge may limit the profits a BESS owner could make from discharging that energy later on.

The Authority's response

- 7.14 If the System Operator was dispatching off BESS consumption out of merit order, in a situation where the BESS owner should have been allowed to stay on, compensation may be warranted. However, we consider this is very unlikely to occur.
- 7.15 The vast majority of constrained off situations for BESS owners when charging will be due to misalignment between the dispatch price and the final price (which is the time-weighted average of dispatch prices in the trading period).⁷³ In these cases, they are being optimally dispatched. In other words, they shouldn't have been granted some greater opportunity.

⁷³ See Appendix C of our [issues and options paper](#)

Compensation would be unnecessary under a different pricing structure

- 7.16 NewPower submitted that most constrained off payments would not be required if we had 5-minute trading periods.
- 7.17 A few other submitters, on both the [issues and options paper](#) and the [BESS roadmap consultation](#), also indicated a preference for 5-minute trading periods. Submitters noted that 5-minute trading periods and settlement would help BESSs manage the variability of intermittent generation. Genesis submitted that we could use the dispatch schedule data to create volume-weighted pricing for each half-hour period. Genesis considered this would be an improvement that could be made more quickly than moving to 5-minute trading periods.

The Authority's response

- 7.18 The Authority agrees that constrained off situations arising due to a mismatch between dispatch and final prices would not occur if there was a final price for each dispatch schedule. Nor would they occur if the prices were volume-weighted as per Genesis's proposal. This is because volume weighted prices for a given dispatchable participant would weight each dispatch price according to the participant's level of dispatch from that schedule. This would mean dispatch prices they were not willing to pay (according to their bid prices) would be excluded, resulting in a (lower) final price below their bid price.⁷⁴
- 7.19 We acknowledge that the current time-weighted average pricing (TWAP) does not provide a perfectly efficient price signal.⁷⁵ We also acknowledge that constrained off payments that occur due to the mismatch between dispatch prices and TWAP would help bring profits closer to what would occur with more efficient prices. That is true, however, for both generators and dispatchable purchasers when these price mismatches occur.
- 7.20 In our view, this issue is best considered as part of an overall review of the adequacy of price signals to incentivise efficient investment in, and operation of, flexible resources to manage an increasingly variable and intermittent power system.
- 7.21 The Authority will consider this for prioritisation in our wider work on managing variability. We note, however, as the scale of work involved to move to 5-minute settlement would be significant, this would need to be considered and prioritised as part of the Authority's wider work programme.

The Authority should not prioritise this issue

- 7.22 A few submitters considered that the topic of constrained off compensation to BESS owners is a minor issue that does not warrant prioritisation in the Authority's workplan.

⁷⁴ Technically, if they had more than one price tranche in their bids, the final price would be below any bid prices that would be scheduled based on the final price.

⁷⁵ The Authority decided to use TWAP as part of its real-time pricing project because it considered TWAP superior to volume-weighted pricing. In particular, this was because volume-weighted pricing could lead to large disparities in prices at nearby locations, which would have a significant impact on the way risk management products work. See paragraphs 4.14 to 4.23 of the [Implementing real-time pricing](#) decision paper.

The Authority's response

7.23 We acknowledge this point and agree that this topic may not warrant further consideration at this time.

We are not proposing to amend the Code

7.24 Having considered submissions, the Authority is no longer proposing to remove constrained off payments for BESSs while charging at this time.

7.25 We do not consider there is a strong argument that the rationale for giving constrained off payments to dispatchable purchasers also applies to BESS owners.

7.26 If considered in isolation from other market arrangements, we consider compensating BESS owners for constrained off would create an inefficient incentive to invest in BESSs over other technologies.

7.27 However, when viewing market arrangements as a whole, we consider that removing constrained off payments would not help to level the playing field between sellers of electricity in the wholesale market. In particular, this is because the gate closure period places greater burden on BESSs than most other technologies. We consider the resulting disincentive to invest in BESSs is greater than the incentive created from constrained off compensation. Therefore, since any possible future changes to gate closure would take some time to implement, we are no longer proposing to remove these payments at this stage.

7.28 If we decide to retain constrained off payments for BESSs following consultation, we would reconsider that decision if gate closure is reduced in the future. We would also consider financial compensation for flexible plant more broadly as part of our future work on managing variability in the power system.

Consultation question:

Q25. Do you agree with the Authority's decision not to propose removing constrained off payments for BESSs while charging at this stage? If not, why not?

8 Changes to existing Code drafting

- 8.1 In addition to proposing Code amendments outlined above, the Authority has also proposed consequential changes to the Code to clarify what existing obligations would continue to apply for BESSs. This includes updating the Code to refer to the new clauses we are proposing.
- 8.2 It also includes ensuring that the appropriate obligations continue to apply as a result of a BESS or BESS owner no longer being considered (or able to be considered) as a:
- (a) dispatch-capable load station
 - (b) dispatchable purchaser
 - (c) dispatch notification purchaser
- 8.3 All clause changes that we have proposed, that have not been already mentioned in the other sections above, are due to these clarifications.
- 8.4 To be clear, the following definitions would continue to apply to BESSs and BESS owners, except where we have proposed unique arrangements (in these cases we exclude BESSs from the existing clauses):
- (a) bid
 - (b) embedded generator
 - (c) generating station
 - (d) generating unit
 - (e) generator
 - (f) nominated bid
 - (g) nominated dispatch bid
 - (h) offer
 - (i) purchaser
 - (j) reconciliation participant
- 8.5 We welcome submitters' feedback on the Code drafting about whether we have accurately captured BESSs in all of the existing obligations in Parts 13 (trading arrangements), 14 (clearing and settlement), and 15 (reconciliation).

Consultation question:

Q26. Do you consider our proposed Code amendment accurately captures BESS owners' obligations in Parts 13, 14, and 15 of the Code?

9 Regulatory Statement for the proposed Code amendment

Objectives of the proposed amendment

- 9.1 The key objectives of the proposed Code amendment are to create appropriate market arrangements for BESSs, which:
- (a) simplify trading and system coordination by recognising a BESS as a single entity that can consume and generate, and move seamlessly between the two states
 - (b) balance efficient operation of BESSs with system security needs
 - (c) can deliver benefits early.
- 9.2 In doing so, the proposed amendment seeks to improve competition (both between BESSs and between BESSs and generators), reliability of supply and the efficient operation of (including through more efficient investment in BESSs), the electricity industry for the long-term benefit of consumers.

Consultation question:

Q27. Do you agree with the objectives of the proposed amendment? If not, why not?

The proposed amendment's benefits are expected to outweigh the costs

- 9.3 The Authority expects the benefits of the proposed amendment to outweigh the costs.

Benefits of the proposed amendment

- 9.4 The proposal provides a range of benefits through promoting competition in, reliable supply by, and efficient operation of the electricity industry for the long-term benefit of consumers.
- 9.5 We also consider that the proposed amendment would result in more affordable electricity for consumers in the long term by improving competition and efficiency.

Competition

- 9.6 Competition is improved by incentivising investment in an efficient mix of technologies to meet demand for electricity and supporting services (eg, ancillary services and network support), and by creating competitive pressure to set prices close to the marginal cost of supply. This can lead to more affordable electricity by reducing costs that may be passed through to consumers.
- 9.7 **The proposed amendment would improve competition by:**
- (a) ensuring price response from BESSs when charging contributes to setting wholesale prices (proposal to address issue 1). This would put competitive pressure on prices and help promote efficient investment in new generation, load, and BESSs, by improving the efficiency of price signals.

- (b) enabling full participation of BESSs in MFK. This would increase competitive pressure in the MFK market, which may be particularly important in the future if frequency keeping requirements increase to manage the increased variability from intermittent generation (proposal to address issue 2).
- (c) enabling more efficient energy arbitrage. Energy arbitrage would be more efficient by enabling BESS owners to trade less conservatively through full capacity trading with SoC constraints and through our interim proposal (proposals to address Issue 3). This would:
 - (i) enable BESS owners to compete more effectively in the wholesale market, reducing wholesale purchase costs
 - (ii) promote efficient investment in BESSs, as it would provide greater financial reward to BESS owners. This would enable the many other benefits BESSs can provide to the power system. This includes helping participants manage financial risks and relieving transmission constraints,⁷⁶ further improving competition in the industry. It also includes promoting efficient operation (see paragraph 9.8 and reliable supply (see paragraph 9.10)
 - (iii) promote efficient investment in wind and solar generation. This is because wind and solar generators would be more able to sell their output to BESSs when supply exceeds (non-BESS) demand.
- (d) removing unnecessary costs for BESS owners having to apply to be dispatchable purchasers (proposal to address issue 1). This would promote efficient investment in BESSs by removing barriers to entry.
- (e) reducing costs to set up trading and dispatch systems for new BESSs, by implementing single trade forms and single dispatch (proposal to address issue 2). This would promote efficient investment in BESSs by removing barriers to entry.

Efficiency

9.8 Efficient operation of the electricity industry is for the long-term benefit of consumers because it reduces system costs. This results in more affordable electricity for consumers in the long term as lower costs are passed through to consumers. In this section we have described efficiency benefits that do not result from the competition benefits already mentioned.

9.9 **The proposed amendment would improve operational efficiency by:**

- (a) removing unnecessary costs for the System Operator having to assess the applications by BESS owners to be dispatchable. This is because our amendment would make BESSs dispatchable by default. (proposal to address issue 1)

⁷⁶ As BESSs are flexible in where they connect to the power system, they are likely to be built downstream of transmission constraints where market prices are higher, improving competition in those locations. This includes when HVDC transfer is constrained by the instantaneous reserve required to cover the risk of a sudden and unexpected failure of half the HVDC link. BESSs are able to provide either generation or instantaneous reserve to relieve these HVDC constraints.

- (b) reducing costs for system coordination and future market system changes by treating a BESS as a single entity in the market (proposal to address issue 2).
- (c) enabling greater investment in BESSs. This could help reduce costs associated with network upgrades and network support devices.⁷⁷

Reliability

9.10 Reliable supply benefits consumers by giving them confidence that electricity will be available when needed, reducing reliance on back-up plans.

9.11 **The proposed amendment would improve the reliability of supply to consumers by:**

- (a) enabling the System Operator to dispatch BESSs while charging (proposal to address issue 1). This would help it coordinate required resources to manage risks to system stability or limit demand management when the supply-demand balance is tight
- (b) improving the System Operator's ability to assess risks to system stability and prepare mitigations. This would occur with our proposal to introduce full capacity trading with SoC constraints by providing greater visibility of potential BESS' dispatch and reducing post-gate closure trade revisions. (proposal to address Issue 3)
- (c) enabling BESS owners to use their limited energy when needed most in an extended grid emergency (proposals for issue 3)
- (d) enabling greater investment in BESSs, as described in paragraph 9.7(c)(ii). As the amount of variable and intermittent generation on the system continues to grow, this would help ensure the industry has the resources needed to:
 - (i) provide adequate intra-day firming to prevent supply shortfalls, as BESSs can shift solar and wind energy from times of more favourable, to times of less favourable, weather conditions.
 - (ii) manage dry year risks. This is because BESSs can absorb excess energy that would otherwise need to be curtailed in times of high solar and wind generation.
 - (iii) support a stable and resilient power system. This is because BESSs are highly capable and adaptable to meet various needs such as supporting system frequency, strength and inertia, and managing network constraints.

The costs of the proposed amendment

9.12 Under our interim solution, which enables BESS owners to trade based on expected capability and revise trades after gate closure when SoC differs from expectations, there would likely be some increased difficulty for the System Operator in managing the power system. However, we consider this to be manageable as this solution would only be in place for an interim period and

⁷⁷ BESSs may provide alternatives to upgrading network assets or installing network support devices such as static synchronous compensators or static VAR compensators which help maintain a stable grid. BESSs connecting downstream of transmission constraints to capture higher market prices may result in deferral of grid upgrades. Additionally, because BESSs can earn money through the market and ancillary services, the additional cost to incentivise them to provide alternatives to network upgrades and devices may be lower than the cost of those traditional network solutions.

because we would put in place requirements to help ensure trades at gate closure are accurate and revisions after gate closure are only made when necessary.

- 9.13 The System Operator has provided a rough order of magnitude cost estimate of approximately \$1.9m to implement the software upgrades it would require for the solution suggested in our [issues and options paper](#) (Appendix E).⁷⁸ The System Operator indicated that this rough estimate remains valid after accounting for the additions we are proposing for SoC constraints calculations. However, it has indicated that further investigations would be required to consider the changes we are proposing for reserve offers. In our view, the additional cost to incorporate these changes would be insignificant relative to the benefits of our proposal.
- 9.14 NZX has estimated costs of approximately \$185k for updating WITS and clearing manager functions.
- 9.15 BESS owners would also incur costs for integrating new trading systems. We consider these costs would not be immaterial but would be relatively low compared to the benefits these changes would bring. We invite feedback from current and future BESS owners on this matter to help inform a final decision.

The Authority considers the benefits will exceed the costs

- 9.16 The Authority considers these arrangements, particularly our proposals to address issue 3, would deliver significant benefits to consumers. We consider the benefits of our proposal would significantly exceed the costs.

Consultation questions:

Q28. Do you agree the benefits of the proposed amendment outweigh its costs?

Q.29 Can you provide any evidence or further information about potential benefits or costs?

We have identified other means for addressing the objectives

- 9.17 The Authority has identified the following alternative means of meeting our objectives.
- 9.18 As part of the solution to address issue 2 (trade forms for BESSs), we identified the alternative option of using a single offer and dispatch that combines a BESSs interruptible load and generation reserve components.
- 9.19 To address issue 3 (gate closure arrangements for BESSs) in the interim period before software changes can be made to facilitate our longer-term proposal, we identified the alternative option of providing guidance about how to interpret existing arrangements.
- 9.20 To address issue 3, we identified the following alternatives:
- (a) full capacity trading with SoC constraints and reduced gate closure
 - (b) requiring conservative trading and one-hour gate closure
 - (c) requiring conservative trading with 30-minute gate closure

⁷⁸ See Appendix E of our [issues and options paper](#). The System Operator estimates a total cost of \$1.9m if this solution was implemented at the same time as our preferred option for Issue 1 (bid and offer forms), approximately \$0.5m less than if implemented separately.

- (d) continuing with existing arrangements but with no gate closure
- (e) continuing our interim proposal
- (f) NewPower's proposal to allow full capacity trading with SoC constraints, but to link bids and offers to the energy storage level.

The proposed amendment is preferred to other options

- 9.21 The Authority has evaluated the other means for addressing the objectives and prefers its proposal.
- 9.22 In addressing issue 2, we consider our proposal to maintain separate offering and dispatch for interruptible load and generation reserve is preferable to the alternative of combining these components into a single offer and dispatch. This is because, as described in paragraph 9.8, our proposal would enable more efficient use of BESSs, leading to more affordable electricity for consumer in the long run. This is because it would enable BESS owners to reflect the different costs of providing interruptible load compared to generation reserve.
- 9.23 In addressing issue 3 during the interim period, we prefer our proposal to providing guidance because it would enable more efficient use of BESSs with less regulatory uncertainty (as described in paragraph 6.106).
- 9.24 The table below summarises our assessment of our longer-term proposal to address issue 3 against the alternatives. Our assessment of options is largely the same as that described in the [issues and options paper](#)⁷⁹ and expanded upon in our responses to submissions (starting at paragraph 6.11 of this paper). Our options assessment is summarised in Table 15 below.

⁷⁹ Paragraphs 6.56 to 6.82.

Table 15: assessment of our longer-term proposal to address issue 3 against alternatives

Alternative	Why we consider our proposal better meets objectives
Full capacity trading with SoC constraints, reduced gate closure	<p>Our proposal better balances efficient use of BESSs with system security needs because:</p> <ul style="list-style-type: none"> • Our proposal may provide significantly greater security benefits. • This alternative would provide greater benefits from the efficient use of BESSs, by enabling BESS owners to update trade prices to reflect changing conditions. • However, we consider the increased benefits to system security under our proposal would be greater than the increased benefits to the efficient use of BESSs under this alternative. <p>From a different perspective, our proposal would be able to deliver benefits earlier because additional changes to the System Operator’s tools and processes would be required to ensure it could adequately manage system security with reduced gate closure.</p>
Conservative trading 1 hour gate closure	<p>Our proposal better balances efficient use of BESSs with system security risks because:</p> <ul style="list-style-type: none"> • Our proposal would provide significantly greater benefits through improving the efficient use of BESSs. • This alternative would provide greater system security benefits. • However, we consider the increased benefits from more efficient use of BESSs under our proposal would outweigh the increased system security benefits under this alternative option. <p>While this alternative would deliver system security benefits earlier, it would come at a significant cost to the efficient use of BESSs. The interim arrangements under our proposal ensure early delivery of benefits from more efficient use of BESSs.</p>
Conservative trading, 30-minute gate closure	<p>Our proposal better balances efficient use of BESSs with system security needs because:</p> <ul style="list-style-type: none"> • Our proposal would provide greater benefits through improving the efficient use of BESSs. • Our proposal would provide greater system security benefits.
Existing rules, no gate closure	<p>Our proposal better balances efficient use of BESSs with system security needs because having no gate closure would significantly increase system security risks.</p> <p>From a different perspective, our proposal is able to deliver benefits much earlier because we consider significant changes to the System Operator’s tools and processes would be required to ensure it could adequately manage system security with no gate closure</p>
Extending our interim proposal – to allow trade revisions after gate closure based on changes in expected SoC – to the longer term	<p>Our proposal better balances efficient use of BESSs with system security risks. This is because it would provide significantly greater visibility to the System Operator of potential operation of BESSs, improving the System Operator’s ability to assess risks and prepare mitigations ahead of dispatch.</p>

Alternative	Why we consider our proposal better meets objectives
Full capacity trading with SoC constraints, with bids and offers linked to storage level	<p>This alternative may not be implementable in the short to medium term because:</p> <ul style="list-style-type: none"> • it would require further assessment • may require significant upgrades to the System Operator’s tools to improve the ability of coordinators to assess multiple system security scenarios. <p>Our proposal better balances the efficient operation of BESSs with system security needs, at least in the short to medium term. While the alternative would improve efficient operation of BESSs compared to our proposal, it could cause significant system security risks (see paragraph 6.13)</p> <p>Our proposal would also deliver benefits earlier, as more investigations would be required to assess and consult on this alternative before it could be implemented.</p>

Consultation question:

Q30. Do you agree the proposed amendment 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 Act.

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

- 9.25 The Authority’s main objective under section 15(1) 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. The Authority’s additional objective under section 15(2) is to protect the interests of domestic and small business consumers in relation to their supply of electricity.
- 9.26 Section 32(1) of the Act provides that the Code may contain any provisions that are consistent with the Authority’s objectives and are necessary or desirable to promote any matters listed in this section.
- 9.27 The proposed Code amendment is desirable to promote competition in, reliable supply by, and efficient operation of the electricity industry for the long-term benefits of consumers, as detailed in the section above.

Consultation question:

Q31. 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

- 9.28 When making amendments to the Code, the Authority is required to follow the amendment principles set out in its Consultation Charter. Table 16 explains how these principles were taken into account when preparing this proposal.

Table 16: Applying the Code amendment principles

Principle	Consideration
1. Clear case for regulation: the Authority will only consider amending the Code when there is a clear case to do so	<p>The Authority considers BESSs can play an important role in our power system to balance the increase of variable renewable generation, such as solar and wind farms.</p> <p>Current wholesale market trading arrangements do not adequately reflect BESSs’ unique characteristics and do not allow BESSs to operate efficiently and support a stable and resilient power system.</p>
2. Costs and benefits are summarised	<p>The costs and benefits of the Code amendment proposal are set out in the evaluation of costs and benefits in section 8.3.</p> <p>The Authority considers that the key benefits of this Code amendment proposal include:</p> <ul style="list-style-type: none"> • Increased competition • Increased operational efficiency • improved reliability of supply to consumers <p>The Authority considers that the key costs of this Code amendment proposal include:</p> <ul style="list-style-type: none"> • implementation and operation costs for the System Operator, WITS manager, and Clearing Manager • the costs to BESS owners, including updating their operational models.

10 Next steps

- 10.1 The Authority will consider all submissions to this consultation before making a decision on next steps. We expect to make a decision around August 2026.
- 10.2 If we decide to proceed with the implementation of the proposed Code amendments, we propose the following next steps:
- (a) Code amendment to come into effect in September 2026 to:
 - (i) require BESSs to be dispatchable when charging
 - (ii) implement an interim arrangement to allow BESS owners to trade based on expected capability (interim proposal).
 - (b) Code amendment to come into effect in December 2027 to implement:
 - (i) a single offer form for BESSs
 - (ii) state of charge constraints for BESSs.
 - (c) Start a trial to reduce gate closure arrangements. This would be subject to prioritisation for 2026/27 and discussions with the System Operator.

APPENDIX A: Proposed Code amendment

Proposed amendments to the Code are displayed as follows:

- (a) text or formatting is red underlined if it is to be added to the existing Code as part of the **interim** amendment
- (b) text or formatting is shown in ~~red strikethrough~~ if it is to be deleted from the existing Code as part of the interim amendment.
- (c) text or formatting is blue underlined if it is to be added to the amended Code as part of the **final** amendment.
- (d) text or formatting is shown in ~~blue strikethrough~~ if it is to be deleted from the amended Code as part of the final amendment.

Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)	Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)
<p>Part 1 Preliminary provisions</p> <p>1.1 Interpretation</p> <p>(1) In this Code, unless the context otherwise requires,— ...</p> <p><u>adjusted consumption capability means the maximum electricity a battery energy storage system station is capable of consuming, in MWh, at the point of connection to the grid for which a bid is submitted in respect of that battery energy storage system station, adjusted to ensure that, under any reasonably foreseeable circumstances, the battery energy storage system owner is able to meet any conditions it intends to comply with for the purposes of maintaining any warranty provided by the original equipment manufacturer</u></p> <p style="text-align: center;">no change</p>	<p>Part 1 Preliminary provisions</p> <p>1.1 Interpretation</p> <p>(1) In this Code, unless the context otherwise requires,— ...</p> <p>adjusted consumption capability means the maximum electricity a battery energy storage system station is capable of consuming, in MWh, at the point of connection to the grid for which a bid is submitted in respect of that battery energy storage system station, adjusted to ensure that, under any reasonably foreseeable circumstances, the battery energy storage system owner is able to meet any conditions it intends to comply with for the purposes of maintaining any warranty provided by the original equipment manufacturer</p> <p><u>adjusted consumption capacity means the maximum power a battery energy storage system station can consume, in MW, at the point of connection to the grid for which a bid is submitted in respect of that battery energy storage system station, adjusted to:</u></p> <p>(a) <u>account for any outages; and</u></p>

Proposed **INTERIM** Code amendment
 (proposed to be in place for 17 months from approx. Sept 2026)

adjusted generation capability means the maximum electricity a battery energy storage system station is capable of generating, in MWh, at the point of connection to the grid for which an offer is submitted in respect of that battery energy storage system station, adjusted to ensure that, under any reasonably foreseeable circumstances, the battery energy storage system owner is able to meet any conditions it intends to comply with for the purposes of maintaining any warranty provided by the original equipment manufacturer

no change

no change

Proposed **FINAL** Code amendment
 (proposed to replace the interim amendment after 17 months, approx. Dec 2027)

(b) account for any distribution network constraints; and
 (c) ensure that, under any reasonably foreseeable circumstances, the battery energy storage system owner is able to meet any conditions it intends to comply with for the purposes of maintaining any warranty provided by the original equipment manufacturer

~~adjusted generation capability means the maximum electricity a battery energy storage system station is capable of generating, in MWh, at the point of connection to the grid for which an offer is submitted in respect of that battery energy storage system station, adjusted to ensure that, under any reasonably foreseeable circumstances, the battery energy storage system owner is able to meet any conditions it intends to comply with for the purposes of maintaining any warranty provided by the original equipment manufacturer~~

adjusted generation capacity means the maximum power a battery energy storage system station can generate, in MW, at the point of connection to the grid for which an offer is submitted in respect of that battery energy storage system station adjusted to:

(a) account for any outages; and
 (b) account for any distribution network constraints; and
 (c) ensure that, under any reasonably foreseeable circumstances, the battery energy storage system owner is able to meet any conditions it intends to comply with for the purposes of maintaining any warranty provided by the original equipment manufacturer

adjusted maximum storage limit means the maximum amount of energy a battery energy storage system station can physically and practically store, in MWh, adjusted to:

(a) account for any outages; and

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

no change

(b) ensure that, under any reasonably foreseeable circumstances, the **battery energy storage system owner** is able to meet any conditions it intends to comply with for the purposes of maintaining any warranty provided by the original equipment manufacturer,

adjusted minimum storage limit means the minimum amount of energy a **battery energy storage system station** can physically and practically store, in MWh, adjusted to:

- (a) account for any outages; and
- (b) ensure that, under any reasonably foreseeable circumstances, the **battery energy storage system owner** is able to meet any conditions it intends to comply with for the purposes of maintaining any warranty provided by the original equipment manufacturer

battery energy storage system means an **energy storage system** in which the energy is stored exclusively in electro-chemical form

battery energy storage system means an **energy storage system** in which the energy is stored exclusively in electro-chemical form

battery energy storage system owner means a person who owns **battery energy storage systems**, or any person who acts, in respect of Parts 13, 14 and 15, on behalf of any person who owns such **battery energy storage systems**, to the extent that person is acting in respect of that **battery energy storage system**

battery energy storage system owner means a person who owns **battery energy storage systems**, or any person who acts, in respect of Parts 13, 14 and 15, on behalf of any person who owns such **battery energy storage systems**, to the extent that person is acting in respect of that **battery energy storage system**

battery energy storage system station means 1 or more **battery energy storage systems** that are directly connected to a **network** and that inject into the **network** at a single **point of connection**

battery energy storage system station means 1 or more **battery energy storage systems** that are directly connected to a **network** and that inject into the **network** at a single **point of connection**

no change

BESS loss factor means a fixed or variable factor reflecting energy losses in respect of a **battery energy storage system station**

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>bid,—</p> <p>(a) means—</p> <p style="padding-left: 20px;">(i) a nominated bid;</p> <p style="padding-left: 20px;">(ii) a difference bid; and</p> <p>(b) includes a bid revised in accordance with clause 13.19AB, 13.19A or 13.19B</p> <p>(c) <i>[Revoked]</i></p> <p>bona fide physical reason includes,—</p> <p>(a) in relation to a generator, or a purchaser, or an ancillary service agent or a grid owner, a situation where personnel or plant safety is at risk; and</p> <p>(b) in relation to a generator or an ancillary service agent providing generation reserve or frequency keeping,—</p> <p style="padding-left: 20px;">(i) a reasonably unforeseeable change in generating capability, reserve capability, or frequency keeping capability (as the case may be) from an item of generating plant that is the subject of an existing offer, reserve offer, or offer to provide frequency keeping by that generator or ancillary service agent; or</p> <p style="padding-left: 20px;">(ii) a reasonably unforeseeable change in the level of expected uncontrollable water inflows into the head pond of a hydro station that is the subject of an existing offer, reserve offer, or offer to provide frequency keeping by that generator or ancillary service agent; or</p> <p style="padding-left: 20px;">(iii) a reasonably unforeseeable change in circumstances such that the generator or ancillary service agent will breach any consent held by it under the Resource Management Act 1991; or</p> <p style="padding-left: 20px;">(iv) a reasonably unforeseeable physical infeasibility that arises</p>	<p>bid,—</p> <p>(a) means—</p> <p style="padding-left: 20px;">(i) a nominated bid;</p> <p style="padding-left: 20px;">(ii) a difference bid; and</p> <p>(b) includes a bid revised in accordance with clause 13.19AB, 13.19A or 13.19B</p> <p>(c) <i>[Revoked]</i></p> <p>bona fide physical reason includes,—</p> <p>(a) in relation to a generator, or a purchaser, or an ancillary service agent or a grid owner, a situation where personnel or plant safety is at risk; and</p> <p>(b) in relation to a generator or an ancillary service agent providing generation reserve or frequency keeping,—</p> <p style="padding-left: 20px;">(i) a reasonably unforeseeable change in generating capability, reserve capability, or frequency keeping capability (as the case may be) from an item of generating plant that is the subject of an existing offer, reserve offer, or offer to provide frequency keeping by that generator or ancillary service agent, <u>but, in the case of an offer by a battery energy storage system owner, does not include a reasonably unforeseeable change in generation capability arising solely due to the effect of dispatch instructions on the battery energy storage system's state of charge</u>; or</p> <p style="padding-left: 20px;">(ii) a reasonably unforeseeable change in the level of expected uncontrollable water inflows into the head pond of a hydro station that is the subject of an existing offer, reserve offer, or offer to provide frequency keeping by that generator or ancillary service agent; or</p> <p style="padding-left: 20px;">(iii) a reasonably unforeseeable change in circumstances such that</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>from a price-responsive schedule, a non-response schedule, or a dispatch schedule; and</p> <p><u>(baa) in relation to a battery energy storage system owner, —</u></p> <p style="padding-left: 20px;">(i) <u>a reasonably unforeseeable change in consumption capability from a battery energy storage system station; or</u></p> <p style="padding-left: 20px;">(ii) <u>a reasonably unforeseeable change in circumstances which the battery energy storage system owner reasonably expects to result in a breach of one or more conditions with which the battery energy storage system owner reasonably considers it must comply for the purposes of maintaining any warranty provided by the original equipment manufacturer; and</u></p> <p>(bb) in relation to an ancillary service agent providing emergency reserve,—</p> <p style="padding-left: 20px;">(i) a reasonably unforeseeable full or partial loss of demand or reserve capability (as the case may be) that is the subject of an alternative ancillary service arrangement to provide emergency reserve; or</p> <p style="padding-left: 20px;">(ii) a reasonably unforeseeable full or partial loss of generating capability from an item of generating plant that is the subject of an ancillary service arrangement to provide emergency reserve; or</p> <p style="padding-left: 20px;">(iii) a reasonably unforeseeable change in circumstances such that the ancillary service agent will breach any consent held by it under the Resource Management Act 1991; and</p> <p>(c) in relation to a purchaser, or an ancillary service agent providing interruptible load,—</p> <p style="padding-left: 20px;">(i) a reasonably unforeseeable full or partial loss of demand or reserve capability (as the case may be) at a grid exit point that is the subject of an existing bid or reserve offer by the purchaser or the ancillary service agent; or</p>	<p>the generator or ancillary service agent will breach any consent held by it under the Resource Management Act 1991; or</p> <p style="padding-left: 20px;">(iv) a reasonably unforeseeable physical infeasibility that arises from a price-responsive schedule, a non-response schedule, or a dispatch schedule; and</p> <p><u>(baa) in relation to a battery energy storage system owner, —</u></p> <p style="padding-left: 20px;">(i) <u>a reasonably unforeseeable change in consumption capability from a battery energy storage system station, <u>excluding a reasonably unforeseeable change in consumption capability arising solely due to the effect of dispatch instructions on the battery energy storage system's state of charge; or</u></u></p> <p style="padding-left: 20px;">(ii) <u>a reasonably unforeseeable change in circumstances which the battery energy storage system owner reasonably expects to result in a breach of one or more conditions with which the battery energy storage system owner reasonably considers it must comply for the purposes of maintaining any warranty provided by the original equipment manufacturer; and</u></p> <p>(bb) in relation to an ancillary service agent providing emergency reserve,—</p> <p style="padding-left: 20px;">(i) a reasonably unforeseeable full or partial loss of demand or reserve capability (as the case may be) that is the subject of an alternative ancillary service arrangement to provide emergency reserve; or</p> <p style="padding-left: 20px;">(ii) a reasonably unforeseeable full or partial loss of generating capability from an item of generating plant that is the subject of an ancillary service arrangement to provide emergency reserve; or</p> <p style="padding-left: 20px;">(iii) a reasonably unforeseeable change in circumstances such that the ancillary service agent will breach any consent held by it</p>

Proposed INTERIM Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

- (ii) a reasonably unforeseeable change in circumstances such that the **purchaser** or **ancillary service agent** will breach any consent held by it under the Resource Management Act 1991; or
 - (iii) a reasonably unforeseeable full or partial loss of generating capability from an item of **generating plant** owned by, or the subject of a supply contract with, that **purchaser** during the relevant **trading periods**; and
 - (d) in relation to a **grid owner**, a reasonably unforeseeable loss of full or partial capacity on transmission plant forming part of the **grid**
- ...

dispatchable load information means the **volume information**—

- (a) of each **dispatch-capable load station** or **battery energy storage system station** for each trading period in a consumption period; and
 - (b) that is—
 - (i) prepared under clause 15.5A or 15.5B; and
 - (ii) aggregated and rounded in accordance with clause 15.5C
- ...

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** or **battery energy storage system owner** has submitted a **nominated dispatch bid** means—

- (a) the **trading period** to which the **offer** or **reserve offer** relates, and

Proposed FINAL Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

- under the Resource Management Act 1991; and
 - (c) in relation to a **purchaser**, or an **ancillary service agent** providing **interruptible load**,—
 - (i) a reasonably unforeseeable full or partial loss of demand or reserve capability (as the case may be) at a **grid exit point** that is the subject of an existing **bid** or **reserve offer** by the **purchaser** or the **ancillary service agent**; or
 - (ii) a reasonably unforeseeable change in circumstances such that the **purchaser** or **ancillary service agent** will breach any consent held by it under the Resource Management Act 1991; or
 - (iii) a reasonably unforeseeable full or partial loss of generating capability from an item of **generating plant** owned by, or the subject of a supply contract with, that **purchaser** during the relevant **trading periods**; and
 - (d) in relation to a **grid owner**, a reasonably unforeseeable loss of full or partial capacity on transmission plant forming part of the **grid**
- ...

dispatchable load information means the **volume information**—

- (a) of each **dispatch-capable load station** or **battery energy storage system station** for each trading period in a consumption period; and
 - (b) that is—
 - (i) prepared under clause 15.5A or 15.5B; and
 - (ii) aggregated and rounded in accordance with clause 15.5C
- ...

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** or **battery energy storage system owner** has submitted a **nominated dispatch bid** means—

- (a) the **trading period** to which the **offer** or **reserve offer** relates, and

Proposed INTERIM Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

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

generating station means 1 or more **generating units** that are directly connected to the **grid** or to a **local network** and that inject into the **grid** or a **local network** (as the case may be) at a single **point of injection**, and includes a battery energy storage system station

generating unit means all equipment functioning together as a single entity to produce **electricity**, and includes a battery energy storage system

generator means, except in Part 6A, a person who owns **generating units** connected to a **network**, or any person who acts, in respect of Parts 13, 14 and 15, on behalf of any person who owns such **generating units**, and includes battery energy storage system owners, **embedded generators**,

Proposed FINAL Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

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

generating station means 1 or more **generating units** that are directly connected to the **grid** or to a **local network** and that inject into the **grid** or a **local network** (as the case may be) at a single **point of injection**, and includes a battery energy storage system station

generating unit means all equipment functioning together as a single entity to produce **electricity**, and includes a battery energy storage system

generator means, except in Part 6A, a person who owns **generating units** connected to a **network**, or any person who acts, in respect of Parts 13, 14 and 15, on behalf of any person who owns such **generating units**, and includes battery energy storage system owners, **embedded generators**,

Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)	Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)
<p>intermittent generators, type A co-generators, and type B co-generators</p> <p>nominated bid—</p> <p>(a) <i>[Revoked]</i></p> <p>(b) <i>[Revoked]</i></p> <p>(c) <i>[Revoked]</i></p> <p>(d) means the information that a purchaser submits to the system operator under clauses <u>13.6A or</u> 13.7 to indicate a reasonable estimate of the—</p> <p>(i) electricity that the purchaser will purchase for a dispatch-capable load station <u>or battery energy storage system</u> at a GXP; or</p> <p>(ii) non-dispatch-capable load that the purchaser will purchase at a nonconforming GXP; and</p> <p>(e) includes a deemed nominated bid under clause 13.8A</p> <p>nominated dispatch bid means a nominated bid that a purchaser submits to the system operator in relation to a <u>battery energy storage system or a dispatch-capable load station</u> that the purchaser is making available to be dispatched</p> <p>offer means the information that a generator submits to the system operator under clause 13.6(1) <u>or 13.6A</u>, and clause 13.9B(1), includes any revised offer that a generator submits under clauses 13.17 to 13.19^{AAA}</p> <p>purchaser means a person who buys electricity from the clearing manager and, for the purposes of Parts 8, 13, 14, and 14A, has the</p>	<p>intermittent generators, type A co-generators, and type B co-generators</p> <p>nominated bid—</p> <p>(a) <i>[Revoked]</i></p> <p>(b) <i>[Revoked]</i></p> <p>(c) <i>[Revoked]</i></p> <p>(d) means the information that a purchaser submits to the system operator under clauses <u>13.6A or</u> 13.7 to indicate a reasonable estimate of the—</p> <p>(i) electricity that the purchaser will purchase for a dispatch-capable load station <u>or battery energy storage system</u> at a GXP; or</p> <p>(ii) non-dispatch-capable load that the purchaser will purchase at a nonconforming GXP; and</p> <p>(e) includes a deemed nominated bid under clause 13.8A</p> <p>nominated dispatch bid means a nominated bid that a purchaser submits to the system operator in relation to a <u>battery energy storage system or a dispatch-capable load station</u> that the purchaser is making available to be dispatched</p> <p>offer means the information that a generator submits to the system operator under clause 13.6(1) <u>or 13.6A</u>, and clause 13.9B(1), includes any revised offer that a generator submits under clauses 13.17 to 13.19^{AAA}</p> <p>purchaser means a person who buys electricity from the clearing manager and, for the purposes of Parts 8, 13, 14, and 14A, has the</p>

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

additional meaning set out in clause 1.5, and includes a battery energy storage system owner

- reconciliation participant** means a **participant** that—
- (a) is one of the following:
 - (i) a **retailer** when purchasing **electricity** from, or selling **electricity** to, the **clearing manager**;
 - (ii) a **generator**;
 - (iii) a **network owner**;
 - (iv) a **distributor**;
 - (v) a person who purchases **electricity** from or sells **electricity** to the **clearing manager**, including a **dispatchable load purchaser** and a battery energy storage system owner; and
 - (b) provides information to the **reconciliation manager** in accordance with clauses 15.4 to 15.11

no change

Part 8
Common quality

...
8.25 Other asset owner performance obligations and technical standards

- ...
- (5) If the **system operator** reasonably considers it necessary to assist the **system operator** in planning to comply, and complying, with the **principal performance obligations** and achieving the **dispatch objective**, the **system operator**—

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

additional meaning set out in clause 1.5, and includes a battery energy storage system owner

- reconciliation participant** means a **participant** that—
- (a) is one of the following:
 - (i) a **retailer** when purchasing **electricity** from, or selling **electricity** to, the **clearing manager**;
 - (ii) a **generator**;
 - (iii) a **network owner**;
 - (iv) a **distributor**;
 - (v) a person who purchases **electricity** from or sells **electricity** to the **clearing manager**, including a **dispatchable load purchaser** and a battery energy storage system owner; and
 - (b) provides information to the **reconciliation manager** in accordance with clauses 15.4 to 15.11

state of charge means the energy stored in a battery energy storage system at a specific point in time, measured in MWh

Part 8
Common quality

...
8.25 Other asset owner performance obligations and technical standards

- ...
- (5) If the **system operator** reasonably considers it necessary to assist the **system operator** in planning to comply, and complying, with the **principal performance obligations** and achieving the **dispatch objective**, the **system operator**—

Proposed INTERIM Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

- (a) may require that an **embedded generator** (except an embedded generator that is a battery energy storage system owner) provide information regarding the intended output of each **embedded generating station** greater than 10 MW in capacity, that must be either—
 - (i) submitted as an **offer** in accordance with subpart 1 of Part 13; or
 - (ii) provided in a form and manner agreed between the **system operator** and the **embedded generator**; and
- (aa) may require that a battery energy storage system owner that is an embedded generator provide information regarding the intended output and consumption of each battery energy storage system station greater than 10MW in capacity, that must be either—
 - (i) submitted as an offer and a bid in accordance with subpart 1 of Part 13; or
 - (ii) provided in a form and manner agreed between the system operator and the battery energy storage system owner; and
- (b) must advise the **embedded generator** or battery energy storage system of its requirement at least 20 **business days** in advance of the requirement coming into effect.

Part 13
Trading arrangements

...
13.3A Approval process for dispatch-capable load stations

- (1) A **purchaser** at a **GXP**, other than a battery energy storage system owner, may apply to the **system operator** for approval for a device or a group of devices at the **GXP** to be a **dispatch-capable load**

Proposed FINAL Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

- (a) may require that an **embedded generator** (except an embedded generator that is a battery energy storage system owner) provide information regarding the intended output of each **embedded generating station** greater than 10 MW in capacity, that must be either—
 - (i) submitted as an **offer** in accordance with subpart 1 of Part 13; or
 - (ii) provided in a form and manner agreed between the **system operator** and the **embedded generator**; and
- (aa) may require that a battery energy storage system owner that is an embedded generator provide information regarding the intended output and consumption of each battery energy storage system station greater than 10MW in capacity, that must be either—
 - (i) submitted as an offer and a bid in accordance with subpart 1 of Part 13; or
 - (ii) provided in a form and manner agreed between the system operator and the battery energy storage system owner; and
- (b) must advise the **embedded generator** or battery energy storage system of its requirement at least 20 **business days** in advance of the requirement coming into effect.

Part 13
Trading arrangements

...
13.3A Approval process for dispatch-capable load stations

- (1) A **purchaser** at a **GXP**, other than a battery energy storage system owner, may apply to the **system operator** for approval for a device or a group of devices at the **GXP** to be a **dispatch-capable load**

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>station under Schedule 13.8.</p> <p>(1A) In addition to subclause (1), a purchaser who intends to operate devices or a group of devices as a dispatch notification purchaser may apply to the system operator for approval for devices or a group of devices located at more than one GXP to be a dispatch-capable load station under Schedule 13.8.</p> <p>(2) The system operator must consider an application under subclause (1) or (1A) in accordance with Schedule 13.8.</p> <p>(3) If the system operator approves a device or a group of devices as a dispatch-capable load station following an application by a purchaser under subclause (1) or (1A)—</p> <p style="margin-left: 20px;">(a) the approval is valid until the date the approval is revoked under clause 10 of Schedule 13.8; but</p> <p style="margin-left: 20px;">(b) a device or group of devices in respect of which the approval is granted is not a dispatch-capable load station while its approval is suspended under clause 10 of Schedule 13.8.</p> <p>(4) The system operator must suspend or revoke an approval for devices or a group of devices located at more than one GXP to be a dispatch-capable load station in accordance with clause 10 of Schedule 13.8 if the purchaser is not, will not in the future or states that it no longer intends to operate as, a dispatch notification purchaser in respect of the relevant dispatch-capable load station.</p> <p>(5) Where the system operator suspends such an approval under subclause (4), the system operator must continue such suspension until—</p> <p style="margin-left: 20px;">(a) the purchaser re-commences operating as a dispatch notification purchaser in respect of the relevant dispatch capable load station; or</p> <p style="margin-left: 20px;">(b) the system operator revokes the approval for devices or a group of devices located at more than one GXP to be a</p>	<p>station under Schedule 13.8.</p> <p>(1A) In addition to subclause (1), a purchaser who intends to operate devices or a group of devices as a dispatch notification purchaser may apply to the system operator for approval for devices or a group of devices located at more than one GXP to be a dispatch-capable load station under Schedule 13.8.</p> <p>(2) The system operator must consider an application under subclause (1) or (1A) in accordance with Schedule 13.8.</p> <p>(3) If the system operator approves a device or a group of devices as a dispatch-capable load station following an application by a purchaser under subclause (1) or (1A)—</p> <p style="margin-left: 20px;">(a) the approval is valid until the date the approval is revoked under clause 10 of Schedule 13.8; but</p> <p style="margin-left: 20px;">(b) a device or group of devices in respect of which the approval is granted is not a dispatch-capable load station while its approval is suspended under clause 10 of Schedule 13.8.</p> <p>(4) The system operator must suspend or revoke an approval for devices or a group of devices located at more than one GXP to be a dispatch-capable load station in accordance with clause 10 of Schedule 13.8 if the purchaser is not, will not in the future or states that it no longer intends to operate as, a dispatch notification purchaser in respect of the relevant dispatch-capable load station.</p> <p>(5) Where the system operator suspends such an approval under subclause (4), the system operator must continue such suspension until—</p> <p style="margin-left: 20px;">(a) the purchaser re-commences operating as a dispatch notification purchaser in respect of the relevant dispatch capable load station; or</p> <p style="margin-left: 20px;">(b) the system operator revokes the approval for devices or a group of devices located at more than one GXP to be a</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p style="text-align: center;">dispatch-capable load station in accordance with clause 10 of Schedule 13.8.</p> <p>(6) The approval for any battery energy storage system station as a dispatch-capable load station prior to [DATE of Code amendment] is revoked with immediate effect from [DATE of Code amendment].</p> <p>13.3E Approval process for dispatch notification purchasers</p> <p>(1) A purchaser, other than a battery energy storage system owner, may apply to become a dispatch notification purchaser by applying to the system operator for approval of the relevant device or group of devices as a dispatch-capable load station under Schedule 13.8.</p> <p>(2) If the system operator receives an application under subclause (1), the system operator must consider the application in accordance with Schedule 13.8.</p> <p>(2A) The system operator may only approve an application if the Authority has confirmed to the system operator that the applicant will be able to comply with clause 13.82B.</p> <p>(3) If the system operator approves a purchaser's application to become a dispatch notification purchaser,—</p> <p>(a) the purchaser is a dispatch notification purchaser in relation to the dispatch-capable load station to which the application relates; and</p> <p>(b) the approval is valid until the date on which the approval is revoked under clause 10 of Schedule 13.8; but</p> <p>(c) the purchaser in respect of which approval is granted is not a dispatch notification purchaser while approval for the relevant dispatch-capable load station is suspended under clause 10 of Schedule 13.8.</p> <p>(4) The system operator may suspend or revoke an approval for a dispatch notification purchaser in accordance with clause 10 of Schedule 13.8 if the purchaser has repeatedly submitted revised bids</p>	<p style="text-align: center;">dispatch-capable load station in accordance with clause 10 of Schedule 13.8.</p> <p>(6) The approval for any battery energy storage system station as a dispatch-capable load station prior to [DATE of Code amendment] is revoked with immediate effect from [DATE of Code amendment].</p> <p>13.3E Approval process for dispatch notification purchasers</p> <p>(1) A purchaser, other than a battery energy storage system owner, may apply to become a dispatch notification purchaser by applying to the system operator for approval of the relevant device or group of devices as a dispatch-capable load station under Schedule 13.8.</p> <p>(2) If the system operator receives an application under subclause (1), the system operator must consider the application in accordance with Schedule 13.8.</p> <p>(2A) The system operator may only approve an application if the Authority has confirmed to the system operator that the applicant will be able to comply with clause 13.82B.</p> <p>(3) If the system operator approves a purchaser's application to become a dispatch notification purchaser,—</p> <p>(a) the purchaser is a dispatch notification purchaser in relation to the dispatch-capable load station to which the application relates; and</p> <p>(b) the approval is valid until the date on which the approval is revoked under clause 10 of Schedule 13.8; but</p> <p>(c) the purchaser in respect of which approval is granted is not a dispatch notification purchaser while approval for the relevant dispatch-capable load station is suspended under clause 10 of Schedule 13.8.</p> <p>(4) The system operator may suspend or revoke an approval for a dispatch notification purchaser in accordance with clause 10 of Schedule 13.8 if the purchaser has repeatedly submitted revised bids</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>under clause 13.19C(1) such that it is no longer appropriate for the purchaser to remain a dispatch notification purchaser, taking into account any criteria set out in the policy statement.</p> <p>13.3F Approval process for dispatch notification generators</p> <p>(1) A generator, <u>other than a battery energy storage system owner</u>, may, by notice in writing to the system operator, apply to become a dispatch notification generator in respect of a generating station that exports less than 30 MW to the grid or a local network.</p> <p>(2) The notice must specify the generating station in respect of which the generator wishes to be a dispatch notification generator.</p> <p>(3) The system operator must approve an application received under subclause (1) if the application—</p> <p>(a) relates to a generating station that exports less than 30 MW to the grid or a local network; and</p> <p>(b) meets any criteria for approval set out in the policy statement.</p> <p>(3A) Notwithstanding subclause (3), the system operator may only approve an application received under subclause (1) if the Authority has confirmed to the system operator that the applicant will be able to comply with clause 13.82B.</p> <p>(4) The system operator may revoke an approval for a dispatch notification generator if—</p> <p>(a) the generator no longer meets the approval requirements; or</p> <p>(b) the generator has repeatedly submitted revised offers under clause 13.19C(2) such that it is no longer appropriate for the generator to remain a dispatch notification generator, taking into account any criteria set out in the policy statement.</p> <p>...</p>	<p>under clause 13.19C(1) such that it is no longer appropriate for the purchaser to remain a dispatch notification purchaser, taking into account any criteria set out in the policy statement.</p> <p>13.3F Approval process for dispatch notification generators</p> <p>(1) A generator, <u>other than a battery energy storage system owner</u>, may, by notice in writing to the system operator, apply to become a dispatch notification generator in respect of a generating station that exports less than 30 MW to the grid or a local network.</p> <p>(2) The notice must specify the generating station in respect of which the generator wishes to be a dispatch notification generator.</p> <p>(3) The system operator must approve an application received under subclause (1) if the application—</p> <p>(a) relates to a generating station that exports less than 30 MW to the grid or a local network; and</p> <p>(b) meets any criteria for approval set out in the policy statement.</p> <p>(3A) Notwithstanding subclause (3), the system operator may only approve an application received under subclause (1) if the Authority has confirmed to the system operator that the applicant will be able to comply with clause 13.82B.</p> <p>(4) The system operator may revoke an approval for a dispatch notification generator if—</p> <p>(a) the generator no longer meets the approval requirements; or</p> <p>(b) the generator has repeatedly submitted revised offers under clause 13.19C(2) such that it is no longer appropriate for the generator to remain a dispatch notification generator, taking into account any criteria set out in the policy statement.</p> <p>...</p>

Bids and offer preparation

13.6 Requirements for generators when submitting offers

- (1) Each **generator** with a **point of connection** to the **grid** and each **embedded generator** required by the **system operator** to submit an **offer** under clause 8.25(5), must—
 - (a) for a **generator** other than an **intermittent generator**;
 - (i) 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
 - (ii) 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.; and
 - (b) subject to subclause (2), for an **intermittent generator**;
 - (i) submit to the **system operator** an offer for each **trading period** and **intermittent generating station** in respect of which the **intermittent generator** is prepared to sell **electricity** to the **clearing manager**; and
 - (ii) ensure that the **system operator** receives an **offer** within 25 minutes of the first **approved forecast** for a **trading period** and **intermittent generating station** to which the **offer** relates; or
 - (iii) if there is no **approved forecast** for a **trading period** and **intermittent generating station** to which the **offer** relates 72 **trading periods** before the beginning of the **trading period**, ensure that the **system operator** receives an **offer** at least 71 **trading periods** before the beginning of the **trading period**.
- (2) Subclauses (1)(b)(ii) and (iii) do not apply to **intermittent generators** using an alternative forecast in accordance with clause 13.9B(4).

Bids and offer preparation

13.6 Requirements for generators when submitting offers

- (1) Each **generator** with a **point of connection** to the **grid** and each **embedded generator** required by the **system operator** to submit an **offer** under clause 8.25(5), must—
 - (a) for a **generator** other than an **intermittent generator**;
 - (i) 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
 - (ii) 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.; and
 - (b) subject to subclause (2), for an **intermittent generator**;
 - (i) submit to the **system operator** an offer for each **trading period** and **intermittent generating station** in respect of which the **intermittent generator** is prepared to sell **electricity** to the **clearing manager**; and
 - (ii) ensure that the **system operator** receives an **offer** within 25 minutes of the first **approved forecast** for a **trading period** and **intermittent generating station** to which the **offer** relates; or
 - (iii) if there is no **approved forecast** for a **trading period** and **intermittent generating station** to which the **offer** relates 72 **trading periods** before the beginning of the **trading period**, ensure that the **system operator** receives an **offer** at least 71 **trading periods** before the beginning of the **trading period**.
- (2) Subclauses (1)(b)(ii) and (iii) do not apply to **intermittent generators** using an alternative forecast in accordance with clause 13.9B(4).

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

- (3) Despite subclauses (1) and (2), a **generator** must give at least 5 **business days'** notice in writing to the **system operator** and the **clearing manager** before the **generator** makes an **offer** for the 1st time in respect of the **generating plant** that is the subject of the offer.
- (4) The notice must state—
 - (a) the **point of connection** to the **grid** at which **electricity** generated by the **generator** is sold to the **clearing manager** under clause 14.3 or 14.4; and
 - (b) whether the **generating plant** is an **intermittent generating station**.
- (5) 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 (3) if the **system operator** requires the information for the purposes of scheduling and **dispatch** in accordance with this Code.
- (6) Despite subclauses (1) and (2), if a **generator** intends to permanently cease to submit **offers** to the **system operator** in respect of any **generating plant**, the **generator** must give at least 5 **business days'** notice in writing to the **system operator** and the **clearing manager**.

(7) Nothing in this clause applies to **battery energy storage system owners**.

13.6A Requirements for battery energy storage system owners when submitting bids and offers

- (1) Each **battery energy storage system owner** with a **point of connection to the grid**, and each **battery energy storage system owner** which is an **embedded generator** and is required by the **system operator** to submit an **offer** under clause 8.25(5), must—

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

- (3) Despite subclauses (1) and (2), a **generator** must give at least 5 **business days'** notice in writing to the **system operator** and the **clearing manager** before the **generator** makes an **offer** for the 1st time in respect of the **generating plant** that is the subject of the offer.
- (4) The notice must state—
 - (a) the **point of connection** to the **grid** at which **electricity** generated by the **generator** is sold to the **clearing manager** under clause 14.3 or 14.4; and
 - (b) whether the **generating plant** is an **intermittent generating station**.
- (5) 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 (3) if the **system operator** requires the information for the purposes of scheduling and **dispatch** in accordance with this Code.
- (6) Despite subclauses (1) and (2), if a **generator** intends to permanently cease to submit **offers** to the **system operator** in respect of any **generating plant**, the **generator** must give at least 5 **business days'** notice in writing to the **system operator** and the **clearing manager**.

(7) Nothing in this clause applies to **battery energy storage system owners**.

13.6A Requirements for battery energy storage system owners when submitting bids and offers

- (1) Each **battery energy storage system owner** with a **point of connection to the grid**, and each **battery energy storage system owner** which is an **embedded generator** and is required by the **system operator** to submit an **offer** under clause 8.25(5), must—

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

- (a) submit to the **system operator** an **offer** and a **nominated bid** for each **trading period** in the **schedule period**, under which the **battery energy storage system owner** is prepared to sell **electricity** to, or buy **electricity** from, the **clearing manager**; and
- (b) ensure that the **system operator** receives an **offer** and **nominated bid** at least 71 **trading periods** before the beginning of the **trading period** to which the **offer** and **nominated bid** relates.
- (2) Despite subclause (1) a **battery energy storage system owner** must give at least 5 **business days'** notice in writing to the **system operator** and the **clearing manager** before the **battery energy storage system owner** makes an **offer** and a **nominated bid** for the 1st time in respect of the **battery energy storage system station** that is the subject of the **offer** and **nominated bid**.
- (3) The notice must state —

 - (a) the **point of connection** to the **grid** at which **electricity** generated by the **battery energy storage system station** is sold to the **clearing manager** under clause 14.3 or 14.4; and
 - (b) the **point of connection** to the **grid** at which **electricity** stored by the **battery energy storage system station** is bought from the **clearing manager** under clause 14.3 or 14.4.
- (4) A **battery energy storage system owner** must comply with any request from the **system operator** for information concerning the **battery energy storage system station** 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 **battery energy storage system owner** intends to permanently cease to submit **offers** and **nominated bids**

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

- (a) submit to the **system operator** an **offer** and a **nominated bid** for each **trading period** in the **schedule period**, under which the **battery energy storage system owner** is prepared to sell **electricity** to, or buy **electricity** from, the **clearing manager**; and
- (b) ensure that the **system operator** receives an **offer** and **nominated bid** at least 71 **trading periods** before the beginning of the **trading period** to which the **offer** and **nominated bid** relates.
- (2) Despite subclause (1) a **battery energy storage system owner** must give at least 5 **business days'** notice in writing to the **system operator** and the **clearing manager** before the **battery energy storage system owner** makes an **offer** and a **nominated bid** for the 1st time in respect of the **battery energy storage system station** that is the subject of the **offer** and **nominated bid**.
- (3) The notice must state —

 - (a) the **point of connection** to the **grid** at which **electricity** generated by the **battery energy storage system station** is sold to the **clearing manager** under clause 14.3 or 14.4; and
 - (b) the **point of connection** to the **grid** at which **electricity** stored by the **battery energy storage system station** is bought from the **clearing manager** under clause 14.3 or 14.4.
- (4) A **battery energy storage system owner** must comply with any request from the **system operator** for information concerning the **battery energy storage system station** 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 **battery energy storage system owner** intends to permanently cease to submit **offers** and **nominated bids**

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p><u>to the system operator in respect of any battery energy storage system station, the battery energy storage system owner must give at least 5 business days' notice in writing to the system operator and the clearing manager.</u></p> <p>...</p> <p>13.7AA Purchaser to submit bids for non-dispatch-capable load</p> <p>(1) This clause applies to each purchaser that—</p> <ul style="list-style-type: none"> (a) purchases non-dispatch-capable load; and (b) in relation to a nominated bid, does not rely on clause 13.8A; <u>and</u> <u>(c) is not a battery energy storage system owner.</u> <p>(2) The purchaser—</p> <ul style="list-style-type: none"> (a) must, if it purchases non-dispatch-capable load at a non-conforming GXP, submit to the system operator for each trading period in the schedule period a nominated non-dispatch bid that represents a reasonable estimate of the total non-dispatch-capable load that the purchaser will purchase— <ul style="list-style-type: none"> (i) at the GXP; and (ii) for the trading period; and (iii) at the prices specified in the nominated non-dispatch bid; and (b) may, if it purchases non-dispatch-capable load at a conforming GXP, submit to the system operator for a trading period a difference bid that represents a reasonable estimate of an increase or decrease in the purchaser's usual non-dispatch-capable load purchased— <ul style="list-style-type: none"> (i) at the GXP; and (ii) for the trading period; and (iii) at the prices specified in the difference bid. 	<p><u>to the system operator in respect of any battery energy storage system station, the battery energy storage system owner must give at least 5 business days' notice in writing to the system operator and the clearing manager.</u></p> <p>...</p> <p>13.7AA Purchaser to submit bids for non-dispatch-capable load</p> <p>(1) This clause applies to each purchaser that—</p> <ul style="list-style-type: none"> (a) purchases non-dispatch-capable load; and (b) in relation to a nominated bid, does not rely on clause 13.8A; <u>and</u> <u>(c) is not a battery energy storage system owner.</u> <p>(2) The purchaser—</p> <ul style="list-style-type: none"> (a) must, if it purchases non-dispatch-capable load at a non-conforming GXP, submit to the system operator for each trading period in the schedule period a nominated non-dispatch bid that represents a reasonable estimate of the total non-dispatch-capable load that the purchaser will purchase— <ul style="list-style-type: none"> (i) at the GXP; and (ii) for the trading period; and (iii) at the prices specified in the nominated non-dispatch bid; and (b) may, if it purchases non-dispatch-capable load at a conforming GXP, submit to the system operator for a trading period a difference bid that represents a reasonable estimate of an increase or decrease in the purchaser's usual non-dispatch-capable load purchased— <ul style="list-style-type: none"> (i) at the GXP; and (ii) for the trading period; and (iii) at the prices specified in the difference bid.

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>13.7AB Timeframe for submitting bids to system operator</p> <p>(1) Each purchaser, <u>other than a battery energy storage system owner,</u> that submits a nominated bid to the system operator must submit the nominated bid at least 71 trading periods before the beginning of the trading period to which the nominated bid applies.</p> <p>(2) Each purchaser, <u>other than a battery energy storage system owner,</u> that submits a difference bid to the system operator must submit the difference bid at least 4 trading periods before the beginning of the trading period to which the difference bid applies.</p> <p>...</p> <p>13.8 Deemed offers</p> <p>(1) This clause applies if, on any trading day ("the current trading day"), a generator has not submitted an offer for a trading period in the trading day following the next trading day.</p> <p>(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 clauses <u>13.9A and 13.9AA apply</u> accordingly.</p> <p>(3) A deemed offer under subclause (2) applies until the generator revises the offer in accordance with clauses 13.17 to 13.19<u>AAA</u>.</p> <p>13.8A Deemed nominated bids</p> <p>(1) This clause applies if, on any trading day ("the current trading day"), a purchaser has not submitted a nominated bid for a trading period in the trading day following the next trading day.</p> <p>(2) A purchaser is deemed to have submitted, for that trading period, a nominated bid that is the same as the nominated bid the purchaser made for the corresponding trading period on the current trading day.</p>	<p>13.7AB Timeframe for submitting bids to system operator</p> <p>(1) Each purchaser, <u>other than a battery energy storage system owner,</u> that submits a nominated bid to the system operator must submit the nominated bid at least 71 trading periods before the beginning of the trading period to which the nominated bid applies.</p> <p>(2) Each purchaser, <u>other than a battery energy storage system owner,</u> that submits a difference bid to the system operator must submit the difference bid at least 4 trading periods before the beginning of the trading period to which the difference bid applies.</p> <p>...</p> <p>13.8 Deemed offers</p> <p>(1) This clause applies if, on any trading day ("the current trading day"), a generator has not submitted an offer for a trading period in the trading day following the next trading day.</p> <p>(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 clauses <u>13.9A and 13.9AA apply</u> accordingly.</p> <p>(3) A deemed offer under subclause (2) applies until the generator revises the offer in accordance with clauses 13.17 to 13.19<u>AAA</u>.</p> <p>13.8A Deemed nominated bids</p> <p>(1) This clause applies if, on any trading day ("the current trading day"), a purchaser has not submitted a nominated bid for a trading period in the trading day following the next trading day.</p> <p>(2) A purchaser is deemed to have submitted, for that trading period, a nominated bid that is the same as the nominated bid the purchaser made for the corresponding trading period on the current trading day.</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>(3) A deemed nominated bid under subclause (2) applies until the purchaser revises the nominated bid in accordance with clause 13.19AAA or 13.19A.</p> <p>(4) A purchaser must ensure that each of its deemed nominated bids under this clause—</p> <p style="padding-left: 20px;">(a) if it is a nominated bid for a dispatch-capable load station, represents a reasonable estimate of the total quantity of electricity that the purchaser will purchase for the dispatch-capable load station at the specified prices for the trading period; or</p> <p style="padding-left: 20px;">(b) if it is a nominated bid for non-dispatch-capable load, represents a reasonable estimate of the non-dispatch-capable load that the purchaser will purchase at the GXP at the specified prices for the trading period.</p> <p>...</p> <p style="text-align: center;">no change</p>	<p>(3) A deemed nominated bid under subclause (2) applies until the purchaser revises the nominated bid in accordance with clause 13.19AAA or 13.19A.</p> <p>(4) A purchaser must ensure that each of its deemed nominated bids under this clause—</p> <p style="padding-left: 20px;">(a) if it is a nominated bid for a dispatch-capable load station, represents a reasonable estimate of the total quantity of electricity that the purchaser will purchase for the dispatch-capable load station at the specified prices for the trading period; or</p> <p style="padding-left: 20px;">(b) if it is a nominated bid for non-dispatch-capable load, represents a reasonable estimate of the non-dispatch-capable load that the purchaser will purchase at the GXP at the specified prices for the trading period.</p> <p>13.9 Information that offers must contain Each offer submitted by a generator must—</p> <p>(a) other than for battery energy storage system owners, intermittent generators, type A co-generators, and type B co-generators, contain all information required by Form 1 in Schedule 13.1; and</p> <p>(b) <i>[Revoked]</i></p> <p>(c) if the offer is submitted by an intermittent generator for an intermittent generating station,—</p> <p style="padding-left: 20px;">(i) contain the information required by Form 2 in Schedule 13.1; and</p> <p style="padding-left: 40px;">(ii) <i>[Revoked]</i></p> <p style="padding-left: 40px;">(iii) <i>[Revoked]</i></p> <p>(d) if the offer is submitted by a type A co-generator for a type A industrial co-generating station or by a type B co-generator for a type B industrial co-generating station,—</p>

Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)	Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)
<p>13.9A Offer not to exceed capability</p> <p>(1) 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 capable of generating at the relevant point of connection to the grid for the relevant trading period.</p> <p>(2) Subclause (1) does not apply to an intermittent generator <u>or a battery energy storage system owner</u>.</p> <p><u>13.9AA Battery energy storage systems offers and bids not to exceed adjusted capability</u> <u>The total MW specified in each offer and bid submitted by a battery energy storage system owner must, in relation to the battery energy</u></p>	<p>(i) contain the information required by Form 3 in Schedule 13.1; and</p> <p>(ii) have a maximum of 2 price bands for each trading period; and</p> <p>(iii) specify a price of either \$0.00 (in accordance with clause 13.116) or \$0.01 for the price band.</p> <p><u>(e) if the offer is submitted by a battery energy storage system owner,</u></p> <p><u>—</u></p> <p><u>(i) contain all information required by Form 10 in Schedule 13.1; and</u></p> <p><u>(ii) contain a variable BESS loss factor for a given MWh of consumption or generation, and a fixed BESS loss factor, for the trading period to which the offer relates which, taken together, constitute a reasonable estimate of the losses the battery energy storage system owner expects to incur in that trading period; and</u></p> <p><u>(iii) have a maximum of 10 price bands for each trading period.</u></p> <p>13.9A Offer not to exceed capability</p> <p>(1) 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 capable of generating at the relevant point of connection to the grid for the relevant trading period.</p> <p>(2) Subclause (1) does not apply to an intermittent generator <u>or a battery energy storage system owner</u>.</p> <p><u>13.9AA Battery energy storage systems offers and bids not to exceed adjusted capability capacity</u> <u>(1) The total MW specified in each offer and bid submitted by a battery energy storage system owner must, in relation to the</u></p>

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

storage system station that is the subject of the offer and bid, not exceed the adjusted generation capability or adjusted consumption capability, whichever is applicable, for that battery energy storage system station for the relevant trading period.

...

13.10 Generators must specify units in offers

Each **offer** submitted by a **generator** must—

- (a) be specific to individual **generating units** for **generating plant** in respect of which **electricity** is offered by that **generator** that cannot **synchronise** and come up to minimum load within the duration of a **trading period**; or
- (ab) be specific to individual **battery energy storage system stations**; or
- (b) be specific to individual **generating stations** for other **generating plant** in respect of which **electricity** is offered by that **generator**.

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

battery energy storage system station that is the subject of the offer and bid, not exceed the adjusted generation ~~capability~~ **capacity** or adjusted consumption ~~capability~~ **capacity**, whichever is applicable, for that battery energy storage system station for the relevant trading period.

(2) The maximum storage limit specified in each offer and bid submitted by a battery energy storage system owner must, in relation to the battery energy storage system station that is the subject of that offer and bid, not exceed the adjusted maximum storage limit for that battery energy storage system station for the relevant trading period.

(3) The minimum storage limit specified in each offer and bid submitted by a battery energy storage system owner must, in relation to the battery energy storage system station that is the subject of that offer and bid, not be less than the adjusted minimum storage limit for that battery energy storage system station for the relevant trading period.

...

13.10 Generators must specify units in offers

Each **offer** submitted by a **generator** must—

- (a) be specific to individual **generating units** for **generating plant** in respect of which **electricity** is offered by that **generator** that cannot **synchronise** and come up to minimum load within the duration of a **trading period**; or
- (ab) be specific to individual **battery energy storage system stations**; or
- (b) be specific to individual **generating stations** for other **generating plant** in respect of which **electricity** is offered by that **generator**.

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>13.11 Offers may be made by unit or plant</p> <p>(1) Despite clause 13.10, a generator, other than an intermittent generator <u>or a battery energy storage system owner</u>, may offer electricity in respect of any generating plant on a unit basis. A generator may exercise this option by giving the system operator at least 5 business days’ notice in writing of the exercise of the option. The system operator must, during the 5 business day period, make any necessary changes to the scheduling software.</p> <p>(2) If a generator has offered electricity in respect of any generating plant on a unit basis in accordance with subclause (1), it may change to submitting offers in accordance with clause 13.10. Such a change may be effected by giving the system operator at least 5 business days’ notice in writing of the change. The system operator must, during the 5 business day period, make any necessary changes to the scheduling software.</p> <p>13.12 Offers may contain up to 5 price bands</p> <p>(1) Subject to clause 13.9(d), an offer submitted by a generator, <u>other than a battery energy storage system owner</u>, may have a maximum of 5 price bands for each trading period, with the 1st price band containing the lowest price offered, and each subsequent band having a higher price than the band preceding it.</p> <p>(2) <u>An offer submitted by a battery energy storage system owner may have a maximum of 10 price bands for each trading period, with the 1st price band containing the lowest price offered, and each subsequent band having a higher price than the band preceding it.</u></p> <p style="text-align: center;">no change</p>	<p>13.11 Offers may be made by unit or plant</p> <p>(1) Despite clause 13.10, a generator, other than an intermittent generator <u>or a battery energy storage system owner</u>, may offer electricity in respect of any generating plant on a unit basis. A generator may exercise this option by giving the system operator at least 5 business days’ notice in writing of the exercise of the option. The system operator must, during the 5 business day period, make any necessary changes to the scheduling software.</p> <p>(2) If a generator has offered electricity in respect of any generating plant on a unit basis in accordance with subclause (1), it may change to submitting offers in accordance with clause 13.10. Such a change may be effected by giving the system operator at least 5 business days’ notice in writing of the change. The system operator must, during the 5 business day period, make any necessary changes to the scheduling software.</p> <p>13.12 Offers may contain up to 5 price bands</p> <p>(1) Subject to clause 13.9(d), an offer submitted by a generator, <u>other than a battery energy storage system owner</u>, may have a maximum of 5 price bands for each trading period, with the 1st price band containing the lowest price offered, and each subsequent band having a higher price than the band preceding it.</p> <p>(2) <u>An offer submitted by a battery energy storage system owner may have a maximum of 10 price bands for each trading period, with the 1st price band containing the lowest price offered, and each subsequent band having a higher price than the band preceding it.</u></p> <p>13.13 Information to be contained in bids</p> <p>(1) A purchaser, <u>other than a battery energy storage system owner</u>, must ensure that each of its nominated bids—</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>13.17 Offers may be revised</p> <p>(1) Subject to subclauses (2) to (4) and clause 13.18A, a generator may revise an offer at any time before the end of the trading period to which the offer relates by submitting a new offer to the system operator.</p> <p>(2) A generator must not revise any of its offer prices during a gate closure period.</p> <p>(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), <u>13.18B</u> 13.19, <u>13.19AAA</u> or 13.19C applies.</p> <p>(4) A generator must not revise any of the following offer parameters during a gate closure period, unless clause 13.19 <u>or 13.19AAA</u> applies:</p> <p>(a) ramp rates:</p> <p>(b) maximum output (including overload).</p>	<p>(a) contains all information required by Form 4 in Schedule 13.1; and</p> <p>(aa) if it is a nominated bid for a dispatch-capable load station, specifies whether it is—</p> <p>(i) a nominated dispatch bid; or</p> <p>(ii) a nominated non-dispatch bid.</p> <p>(b) <i>[Revoked]</i></p> <p>(c) <i>[Revoked]</i></p> <p>(1A) <i>[Revoked]</i></p> <p>(2) A purchaser must ensure that each of its difference bids contains all information required by Form 4A in Schedule 13.1.</p> <p><u>(3) A battery energy storage system owner must ensure that each of its nominated bids contains all information required by Form 10 in Schedule 13.1.</u></p> <p>...</p> <p>13.17 Offers may be revised</p> <p>(1) Subject to subclauses (2) to (4) and clause 13.18A, a generator may revise an offer at any time before the end of the trading period to which the offer relates by submitting a new offer to the system operator.</p> <p>(2) A generator must not revise any of its offer prices during a gate closure period.</p> <p>(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), <u>13.18B</u> 13.19, <u>13.19AAA</u> or 13.19C applies.</p> <p>(4) A generator must not revise any of the following offer parameters during a gate closure period, unless clause 13.19 <u>or 13.19AAA</u> applies:</p> <p>(a) ramp rates:</p> <p>(b) maximum output (including overload).</p>

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

13.18 When revised offer to be submitted

- (1) A **generator**, other than an **intermittent generator** or battery energy storage system owner, 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 capable of generating at the relevant **point of connection** to the **grid** for the relevant **trading period**.
- (1A) A **generator**, other than an **intermittent generator** or battery energy storage system owner, 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 capable of generating at the relevant **point of connection** to the **grid** for the relevant **trading period**.
- (1B) The submission of a revised **offer** under subclause (1) or subclause (1A) does not relieve the **generator** of liability for breach of any other provision of this Code.
- (2) *[Revoked]*
- (3) *[Revoked]*

...

13.18B When battery energy storage system owners must revise offer and bid

- (1) **A battery energy storage system owner must submit a revised offer, or bid, to the system operator if necessary to ensure that, as at the start of the gate closure period for the relevant trading period, the total MW specified in the offer, or bid, does not exceed the adjusted generation capability, or adjusted consumption capability, whichever is applicable, for that battery energy storage system station for the relevant trading period.**

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

13.18 When revised offer to be submitted

- (1) A **generator**, other than an **intermittent generator** or battery energy storage system owner, 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 capable of generating at the relevant **point of connection** to the **grid** for the relevant **trading period**.
- (1A) A **generator**, other than an **intermittent generator** or battery energy storage system owner, 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 capable of generating at the relevant **point of connection** to the **grid** for the relevant **trading period**.
- (1B) The submission of a revised **offer** under subclause (1) or subclause (1A) does not relieve the **generator** of liability for breach of any other provision of this Code.
- (2) *[Revoked]*
- (3) *[Revoked]*

...

13.18B When battery energy storage system owners must revise offer and bid

- (1) **A battery energy storage system owner must submit a revised offer, or bid, to the system operator if necessary to ensure that, as at the start of the gate closure period for the trading period:**
 - (a) **the total MW specified in the offer, or bid, in relation to the battery energy storage system station that is the subject of the offer or bid, does not exceed the adjusted generation capability capacity, or adjusted consumption capability capacity, whichever is applicable, for that battery energy**

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

- (2) A battery energy storage system owner must immediately submit a revised offer, or bid, to the system operator if:
 - (a) the total MW specified in that offer, or bid, exceeds, by more than 5 MW, the adjusted generation capability, or adjusted consumption capability, whichever is applicable, for that battery energy storage system station, for the relevant trading period; and
 - (b) one or more of the conditions in clause 13.9AAA(1)(a) to (e) applies.
- (3) The submission of a revised offer or bid under this clause does not relieve the battery energy storage system owner of liability for breach of any other provision of this Code.

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

- storage system station for the relevant trading period:
 - (b) the maximum storage limit specified in the offer, or bid, in relation to the battery energy storage system station that is the subject of the offer or bid, does not exceed the adjusted maximum storage limit for that battery energy storage system station for the relevant trading period;
 - (c) the minimum storage limit specified in the offer, or bid, in relation to the battery energy storage system station that is the subject of the offer or bid, is not lower than the adjusted minimum storage limit for that battery energy storage system station for the relevant trading period.
- (2) A battery energy storage system owner must immediately submit a revised offer, or bid, to the system operator, whether or not the gate closure period for the trading period to which that offer or bid relates has commenced, if one or more of the conditions in clause 13.9AAA(1)(a) to (f) applies and:
 - (a) the total MW specified in the offer, or bid, in relation to the battery energy storage system station that is the subject of the offer or bid, exceeds the adjusted generation capability, or adjusted consumption capability, whichever is applicable, for that battery energy storage system station for the relevant trading period by more than 5 MW; or
 - (b) the maximum storage limit specified in the offer, or bid, in relation to the battery energy storage system station that is the subject of the offer or bid, exceeds the adjusted maximum storage limit for that battery energy storage system station for the relevant trading period by more than 2.5 MWh; or
 - (c) the minimum storage limit specified in the offer, or bid, in

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>13.19 When revised offers may be submitted during gate closure period</p> <p>(1) A generator, other than an intermittent generator <u>or battery energy storage system owner</u>, may submit a revised offer to the system operator during a gate closure period if—</p> <ul style="list-style-type: none"> (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— <ul style="list-style-type: none"> (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 offer 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 as a result of the original bona fide physical reason. 	<p style="text-align: center;"><u>relation to the battery energy storage system station that is the subject of the offer or bid, is less than the adjusted minimum storage limit for that battery energy storage system station for the relevant trading period by more than 2.5 MWh.</u></p> <p><u>(3) The submission of a revised offer or bid under this clause does not relieve the battery energy storage system owner of liability for breach of any other provision of this Code.</u></p> <p>13.19 When revised offers may be submitted during gate closure period</p> <p>(1) A generator, other than an intermittent generator <u>or battery energy storage system owner</u>, may submit a revised offer to the system operator during a gate closure period if—</p> <ul style="list-style-type: none"> (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— <ul style="list-style-type: none"> (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 offer 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 as a result of the original bona fide physical reason.

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>(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.</p> <p><u>13.19AAA When a battery energy storage system owner may submit revised offers or bids during gate closure</u></p> <p>(1) <u>Subject to clause 13.19AB, a battery energy storage system owner may submit a revised offer or bid to the system operator during a gate closure period only if—</u></p> <p>(a) <u>the revision is necessary due to a bona fide physical reason;</u> <u>or</u></p> <p>(b) <u>the system operator issues a formal notice under clause 5 of Technical Code B of Schedule 8.3; or</u></p> <p>(c) <u>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 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; or</u></p> <p>(d) <u>the total MW specified in the offer or bid exceeds the adjusted generation capability or adjusted consumption capability, whichever is applicable, that a reasonable battery energy storage system owner, assessing the matter immediately before the start of the gate closure period for the relevant trading period, would have expected for that trading period; or</u></p> <p>(e) <u>the state of charge the battery energy storage system station is expected to have at the beginning of the trading period to which the offer or bid relates differs from the state of charge a reasonable battery energy storage system owner assessing the matter immediately before the start of the gate closure</u></p>	<p>(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.</p> <p><u>13.19AAA When a battery energy storage system owner may submit revised offers or bids during gate closure</u></p> <p>(1) <u>Subject to clause 13.19AB, a battery energy storage system owner may submit a revised offer or bid to the system operator during a gate closure period only if—</u></p> <p>(a) <u>the revision is necessary due to a bona fide physical reason;</u> <u>or</u></p> <p>(b) <u>the system operator issues a formal notice under clause 5 of Technical Code B of Schedule 8.3; or</u></p> <p>(c) <u>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 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; or</u></p> <p>(d) <u>the total MW specified in the offer, or bid, in relation to the battery energy storage system station that is the subject of the offer or bid, exceeds the adjusted generation capability capacity, or adjusted consumption capability capacity, whichever is applicable and as determined at the start of the gate closure period for the relevant trading period, for that battery energy storage system station for the relevant trading period; or</u></p> <p>(e) <u>the maximum storage limit specified in the offer, or bid, in relation to the battery energy storage system station that is the subject of the offer or bid, exceeds the adjusted</u></p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p style="text-align: center;"><u>period would have expected the battery energy storage system station to have at the beginning of that trading period.</u></p> <p>(2) <u>A battery energy storage system owner that submits a revised offer or bid under subclause (1)(c) must do so as soon as possible after the relevant bona fide physical reason ceases to exist.</u></p> <p>(3) <u>The submission of a revised offer or bid under this clause does not relieve the battery energy storage system owner of liability for breach of any other provision of this Code.</u></p> <p>13.19AA Limitations on revised offers A generator, <u>other than a battery energy storage system owner</u>, that submits a revised offer under clauses 13.18(1), 13.18(1A), or 13.19(1) during a gate closure period must ensure that—</p> <p>(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 capable of generating at the relevant point of connection to the grid for the relevant trading period; and</p> <p>(b) the revised offer complies with the following:</p> <p>(i) the reduction in MW specified in the revised offer must be first deducted from the MW offered in the highest price band:</p>	<p style="text-align: center;"><u>maximum storage limit, as determined at the start of the gate closure period for the relevant trading period, for that battery energy storage system station for the relevant trading period; or</u></p> <p>(f) <u>the minimum storage limit specified in the offer, or bid, in relation to the battery energy storage system station that is the subject of the offer or bid, is less than the adjusted minimum storage limit, as determined at the start of the gate closure period for the relevant trading period, for that battery energy storage system station for the relevant trading period.</u></p> <p>(2) <u>A battery energy storage system owner that submits a revised offer or bid under subclause (1)(c) must do so as soon as possible after the relevant bona fide physical reason ceases to exist.</u></p> <p>(3) <u>The submission of a revised offer or bid under this clause does not relieve the battery energy storage system owner of liability for breach of any other provision of this Code.</u></p> <p>13.19AA Limitations on revised offers A generator, <u>other than a battery energy storage system owner</u>, that submits a revised offer under clauses 13.18(1), 13.18(1A), or 13.19(1) during a gate closure period must ensure that—</p> <p>(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 capable of generating at the relevant point of connection to the grid for the relevant trading period; and</p> <p>(b) the revised offer complies with the following:</p> <p>(i) the reduction in MW specified in the revised offer must be first deducted from the MW offered in the highest price band:</p>

Proposed INTERIM Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

(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**.

13.19AB Limitations on revised offers and bids for battery energy storage system owners

- (1) A battery energy storage system owner that submits a revised offer or bid in reliance on clause 13.19AAA(1)(a), (b) or (d) during a gate closure period must ensure that the MW specified in the revised offer or bid only differs from the original offer or bid to the extent necessary to ensure that the MW specified in the revised offer or bid is the adjusted generation capability or adjusted consumption capability, whichever is applicable.
- (2) A battery energy storage system owner that submits a further revised offer or bid under clause 13.19AAA(1)(c) during a gate closure period must ensure the total change in MW as between that further revised offer or bid and the offer or bid as revised to account for the bona fide physical reason is the same or less than the total change in MW made to the original offer or bid as a result of the bona fide physical reason.
- (3) A battery energy storage system owner that submits a revised offer or bid under clause 13.19AAA(1)(e) during a gate closure period must ensure the MW in the revised offer or bid does not—
 - (a) exceed the adjusted generation capability or adjusted consumption capability, whichever is applicable; and
 - (b) exceed the MW specified in the original offer or bid, if there was a decrease in expected generation or consumption capability relative to that expected at the time the original offer

Proposed FINAL Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

(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**.

13.19AB Limitations on revised offers and bids for battery energy storage system owners

- (1) A battery energy storage system owner that submits a revised offer or bid under clause 13.19AAA(a), (b), ~~(d)~~, (e) or (f) during a gate closure period must ensure that:
 - (a) the MW specified in the revised offer or bid only differs from the original offer or bid to the extent necessary to ensure that the MW specified in the revised offer or bid is the adjusted generation capability capacity or adjusted consumption capability, whichever is applicable; and
 - (b) the maximum and minimum storage limits specified in the revised offer or bid only differ from the original offer or bid to the extent necessary to ensure that the maximum and minimum storage limits specified in the revised offer or bid are the adjusted maximum storage limit and adjusted minimum storage limit.
- (2) A battery energy storage system owner that submits a further revised offer or bid under clause 13.19AAA(1)(c) during a gate closure period must ensure the total change in MW as between that further revised offer or bid and the offer or bid as revised to account for the bona fide physical reason is the same or less than the total change in MW made to the original offer or bid as a result of the bona fide physical reason.
- ~~(3) A battery energy storage system owner that submits a revised~~

Proposed INTERIM Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

- ~~or bid was submitted; and~~
- (c) ~~reduce the MW specified in the original offer or bid, if there was an increase in expected generation or consumption capability relative to that expected at the time the original offer or bid was submitted; and~~
- (d) ~~differ from the MW in the original offer or bid by more than the change in expected capability from the original offer and bid.~~
- (4) A revised offer under this clause must comply with the following:
- (a) the reduction in MW specified in the revised offer must be first deducted from the MW offered in the highest price band;
- (b) 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.
- (5) A revised bid under this clause must comply with the following:
- (a) the reduction in MW specified in the revised bid must be first deducted from the MW bid for in the lowest price band;
- (b) if the reduction in MW exceeds the MW in the lowest price band, the remainder must be deducted from the price bands above the lowest, in ascending order as the MW in each price band is reduced to zero, until all of the reduction is reflected in the revised bid.

Proposed FINAL Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

- ~~offer or bid under clause 13.19AAA(1)(e) during a gate closure period must ensure the MW in the revised offer or bid does not—~~
- (a) ~~exceed the adjusted generation capability or adjusted consumption capability, whichever is applicable; and~~
- (b) ~~exceed the MW specified in the original offer or bid, if there was a decrease in expected generation or consumption capability relative to that expected at the time the original offer or bid was submitted; and~~
- (c) ~~reduce the MW specified in the original offer or bid, if there was an increase in expected generation or consumption capability relative to that expected at the time the original offer or bid was submitted; and~~
- (d) ~~differ from the MW in the original offer or bid by more than the change in expected capability from the original offer and bid.~~
- [Revoked]*
- (4) A revised offer under this clause must comply with the following:
- (a) the reduction in MW specified in the revised offer must be first deducted from the MW offered in the highest price band;
- (b) 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.
- (5) A revised bid under this clause must comply with the following:
- (a) the reduction in MW specified in the revised bid must be first deducted from the MW bid for in the lowest price band;
- (b) if the reduction in MW exceeds the MW in the lowest price band, the remainder must be deducted from the price bands above the lowest, in ascending order as the MW in each price

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>13.19A Bids may be revised</p> <p>(1) Each purchaser <u>other than a battery energy storage system owner</u> may, at any time before the end of a trading period in respect of which a bid is made,—</p> <p>(a) revise any of its bid prices or the MW specified in any price band in a bid for any trading period by submitting a new bid to the system operator; or</p> <p>(aa) revise a nominated bid—</p> <p>(i) from being a nominated dispatch bid to being a nominated non-dispatch bid; or</p> <p>(ii) from being a nominated non-dispatch bid to being a nominated dispatch bid.</p> <p>(b) <i>[Revoked]</i></p> <p>(1A) Despite subclause (1), a dispatchable load purchaser must not do any of the following during a gate closure period:</p> <p>(a) revise the price of a nominated dispatch bid;</p> <p>(b) revise the MW specified in any price band in a nominated dispatch bid, unless subclause (1B) or clause 13.19B applies.</p> <p>(c) revise a nominated non-dispatch bid to being a nominated dispatch bid, unless the system operator declares a grid emergency in accordance with Technical Code B of Schedule 8.3.</p> <p>(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—</p> <p>(a) the revision is necessary due to a bona fide physical reason;</p> <p>or</p>	<p style="text-align: center;"><u>band is reduced to zero, until all of the reduction is reflected in the revised bid.</u></p> <p>13.19A Bids may be revised</p> <p>(1) Each purchaser <u>other than a battery energy storage system owner</u> may, at any time before the end of a trading period in respect of which a bid is made,—</p> <p>(a) revise any of its bid prices or the MW specified in any price band in a bid for any trading period by submitting a new bid to the system operator; or</p> <p>(aa) revise a nominated bid—</p> <p>(i) from being a nominated dispatch bid to being a nominated non-dispatch bid; or</p> <p>(ii) from being a nominated non-dispatch bid to being a nominated dispatch bid.</p> <p>(b) <i>[Revoked]</i></p> <p>(1A) Despite subclause (1), a dispatchable load purchaser must not do any of the following during a gate closure period:</p> <p>(a) revise the price of a nominated dispatch bid;</p> <p>(b) revise the MW specified in any price band in a nominated dispatch bid, unless subclause (1B) or clause 13.19B applies.</p> <p>(c) revise a nominated non-dispatch bid to being a nominated dispatch bid, unless the system operator declares a grid emergency in accordance with Technical Code B of Schedule 8.3.</p> <p>(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—</p> <p>(a) the revision is necessary due to a bona fide physical reason;</p> <p>or</p>

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

- (b) the **system operator** has declared a **grid emergency**; 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** 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 **nominated dispatch bid** that was made as a result of the original **bona fide physical reason**.
- (1C) Subject to subclauses (1D) to (1F) and clause 13.18B, a **battery energy storage system owner** may revise a **bid** at any time before the end of the **trading period** to which the **bid** relates by submitting a new **bid** to the **system operator**.
- (1D) A **battery energy storage system owner** must not revise any of its **bid** prices during a **gate closure period**.
- (1E) A **battery energy storage system owner** must not revise the **MW** specified in any price band in a **bid** during a **gate closure period**, unless clause 13.18B or 13.19AAA applies.
- (1F) A **battery energy storage system owner** must not revise any of the following **bid** parameters during a **gate closure period**, unless clause 13.19AAA applies:
- (a) ramp rates;
 - (b) maximum output (including overload).
- (2) *[Revoked]*
- (3) *[Revoked]*

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

- (b) the **system operator** has declared a **grid emergency**; 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** 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 **nominated dispatch bid** that was made as a result of the original **bona fide physical reason**.
- (1C) Subject to subclauses (1D) to (1F) and clause 13.18B, a **battery energy storage system owner** may revise a **bid** at any time before the end of the **trading period** to which the **bid** relates by submitting a new **bid** to the **system operator**.
- (1D) A **battery energy storage system owner** must not revise any of its **bid** prices during a **gate closure period**.
- (1E) A **battery energy storage system owner** must not revise the **MW** specified in any price band in a **bid** during a **gate closure period**, unless clause 13.18B or 13.19AAA applies.
- (1F) A **battery energy storage system owner** must not revise any of the following **bid** parameters during a **gate closure period**, unless clause 13.19AAA applies:
- (a) ramp rates;
 - (b) maximum output (including overload).
- (2) *[Revoked]*
- (3) *[Revoked]*

Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)	Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)
<p>(3A) <i>[Revoked]</i> (3B) <i>[Revoked]</i> (4) <i>[Revoked]</i> (5) <i>[Revoked]</i> (6) <i>[Revoked]</i>.</p>	<p>(3A) <i>[Revoked]</i> (3B) <i>[Revoked]</i> (4) <i>[Revoked]</i> (5) <i>[Revoked]</i> (6) <i>[Revoked]</i>.</p>
<p>13.19B Bids must be revised</p> <p>(1) Before the end of the trading period to which a nominated bid relates, the a purchaser, other than a battery energy storage system owner, 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 it is likely to purchase at the prices indicated in the nominated bid will,—</p> <p>(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—</p> <p>(i) 20 MW; and</p> <p>(ii) 20% of the nominated bid MW; or</p> <p>(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—</p> <p>(i) 10 MW; and</p> <p>(ii) 10% of the nominated bid MW.</p> <p>(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.</p> <p>...</p>	<p>13.19B Bids must be revised</p> <p>(1) Before the end of the trading period to which a nominated bid relates, the a purchaser, other than a battery energy storage system owner, 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 it is likely to purchase at the prices indicated in the nominated bid will,—</p> <p>(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—</p> <p>(i) 20 MW; and</p> <p>(ii) 20% of the nominated bid MW; or</p> <p>(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—</p> <p>(i) 10 MW; and</p> <p>(ii) 10% of the nominated bid MW.</p> <p>(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.</p> <p>...</p>

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

- 13.21 Authority informed of revised nominated dispatch bid or offer during gate closure period**
- (1) A dispatchable load purchaser, **battery energy storage system owner**, or generator that submits a revised **nominated dispatch bid** or a revised **offer** to the **system operator** during a **gate closure period** must report each revision to the **Authority** in writing together with an explanation of the reasons for the revision.
 - (1A) The **dispatchable load purchaser**, **battery energy storage system owner**, or **generator** must report the revision to the **Authority** no later than 1700 hours on the 1st **business day** following the **trading day** on which the revision was made.
 - (1B) Subclauses (1) and (1A) do not apply to an **intermittent generator** submitting a revised **forecast of generation potential** under clause 13.18A.
 - (2) *[Revoked]*
- ...

- 13.25A Exception for small battery energy storage systems**
- (1) Despite clause 13.6A(1), a **battery energy storage system owner** is not required to submit **offers and bids** for a **battery energy storage system station** that has a **maximum continuous MW output power** of 10 MW or smaller.
 - (2) Any **electricity** discharged by a **battery energy storage system station** to which subclause (1) applies and which is sold to the **clearing manager** is regarded as **unoffered generation** for the purpose of this Code.
 - (3) The **system operator** may require the relevant **battery energy storage system owner** to provide information in a form reasonably determined by the **system operator** on the expected generation output for any **unoffered generation** from a **battery energy storage system owner** with a **point of connection** to the **grid**.

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

- 13.21 Authority informed of revised nominated dispatch bid or offer during gate closure period**
- (1) A dispatchable load purchaser, **battery energy storage system owner**, or generator that submits a revised **nominated dispatch bid** or a revised **offer** to the **system operator** during a **gate closure period** must report each revision to the **Authority** in writing together with an explanation of the reasons for the revision.
 - (1A) The **dispatchable load purchaser**, **battery energy storage system owner**, or **generator** must report the revision to the **Authority** no later than 1700 hours on the 1st **business day** following the **trading day** on which the revision was made.
 - (1B) Subclauses (1) and (1A) do not apply to an **intermittent generator** submitting a revised **forecast of generation potential** under clause 13.18A.
 - (2) *[Revoked]*
- ...

- 13.25A Exception for small battery energy storage systems**
- (1) Despite clause 13.6A(1), a **battery energy storage system owner** is not required to submit **offers and bids** for a **battery energy storage system station** that has a **maximum continuous MW output power** of 10 MW or smaller.
 - (2) Any **electricity** discharged by a **battery energy storage system station** to which subclause (1) applies and which is sold to the **clearing manager** is regarded as **unoffered generation** for the purpose of this Code.
 - (3) The **system operator** may require the relevant **battery energy storage system owner** to provide information in a form reasonably determined by the **system operator** on the expected generation output for any **unoffered generation** from a **battery energy storage system owner** with a **point of connection** to the **grid**.

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>...</p> <p style="text-align: center;">no change</p>	<p>...</p> <p>13.38 Ancillary service agents to submit reserve offers to system operator</p> <p>(1) Each ancillary service agent who has a contract described in clause 13.37 may submit reserve offers to the system operator.</p> <p>(1A) An ancillary service agent who submits a reserve offer must ensure that the system operator receives the reserve offer at least 71 trading periods before the beginning of the trading period to which the reserve offer applies.</p> <p>(2) Each reserve offer submitted by an ancillary service agent, <u>other than a battery energy storage system owner</u>, under subclause (1) may be for fast instantaneous reserve, sustained instantaneous reserve or both and must—</p> <p>(a) contain all the information required by Form 5(1) in Schedule 13.1 for partly loaded spinning reserve or Form 5(2) in Schedule 13.1 for all other categories of generation reserve; and</p> <p>(b) contain all the information required by Form 6 in Schedule 13.1 for interruptible load; and</p> <p>(c) be a reasonable estimate of the quantity of instantaneous reserve available from the ancillary service agent at that grid injection point, grid exit point or interruptible load group GXP.</p> <p><u>(2A) Each reserve offer submitted by an ancillary service agent that is a battery energy storage system owner under subclause (1) may be for fast instantaneous reserve, sustained instantaneous reserve or both and must—</u></p> <p><u>(a) contain all the information required by Form 11; and</u></p> <p><u>(b) in respect of interruptible load, not exceed a reasonable estimate of the adjusted consumption capacity for the</u></p>

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

13.39 Inter-relationship between reserve and energy offers
Reserve offers and **offers** made under clauses 13.38(1) and 13.6(1) to (3) or 13.6A(1) or (2) respectively, if they are in respect of the same individual **generating unit** or individual **generating station** (as required under clauses 13.10 and 13.11), are inter-related in that the greater the energy **dispatched** the lower the **instantaneous reserve** may be and vice versa. Accordingly, an **ancillary service agent** that is a **generator** does not breach clause 13.38(2)(c) if the **offer** quantity under clauses 13.6 to 13.27 and quantity of **instantaneous reserve** offered under clauses 13.37 to 13.54 are duplicated, and the **ancillary service agent** must not be scheduled by the **system operator** and a **dispatch instruction** from the **system operator** must not be given the effect of which is that the combined dispatch quantity and **instantaneous reserve** exceeds the capacity of the individual **generating unit** or individual **generating station**, as the case may be.

13.40A Inter-relationship between reserve offers and nominated dispatch bids
Reserve offers and **nominated dispatch bids** made under clauses 13.38(1) and 13.7(1) to (3) (or clause 13.6A(1) in respect of a nominated

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

ancillary service agent's battery energy storage system station; and
(c) in respect of generation reserve, not exceed a reasonable estimate of the adjusted generation capacity for the ancillary service agent's battery energy storage system station.

(3) Each **reserve offer** submitted under subclause (1), by an **ancillary service agent** that is a **generator**, must be made by reference to the same **generating unit** or **generating station** that is the subject of an **offer** under clauses 13.10 or 13.11.

13.39 Inter-relationship between reserve and energy offers
Reserve offers and **offers** made under clauses 13.38(1) and 13.6(1) to (3) or 13.6A(1) or (2) respectively, if they are in respect of the same individual **generating unit** or individual **generating station** (as required under clauses 13.10 and 13.11), are inter-related in that the greater the energy **dispatched** the lower the **instantaneous reserve** may be and vice versa. Accordingly, an **ancillary service agent** that is a **generator** does not breach clause 13.38(2)(c) if the **offer** quantity under clauses 13.6 to 13.27 and quantity of **instantaneous reserve** offered under clauses 13.37 to 13.54 are duplicated, and the **ancillary service agent** must not be scheduled by the **system operator** and a **dispatch instruction** from the **system operator** must not be given the effect of which is that the combined dispatch quantity and **instantaneous reserve** exceeds the capacity of the individual **generating unit** or individual **generating station**, as the case may be.

13.40A Inter-relationship between reserve offers and nominated dispatch bids
Reserve offers and **nominated dispatch bids** made under clauses 13.38(1) and 13.7(1) to (3) (or clause 13.6A(1) in respect of a nominated

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p><u>dispatch bid made by a battery energy storage system owner</u> respectively, if they are in respect of the same plant, are inter-related in that the lower the demand dispatched or scheduled the lower the instantaneous reserve may be. The ancillary service agent must not be scheduled by the system operator and a dispatch instruction from the system operator must not be given the effect of which is that the instantaneous reserve exceeds the scheduled or dispatched demand quantity of the dispatch-capable load station, as the case may be.</p> <p>...</p> <p style="text-align: center;">no change</p>	<p><u>dispatch bid made by a battery energy storage system owner</u> respectively, if they are in respect of the same plant, are inter-related in that the lower the demand dispatched or scheduled the lower the instantaneous reserve may be. The ancillary service agent must not be scheduled by the system operator and a dispatch instruction from the system operator must not be given the effect of which is that the instantaneous reserve exceeds the scheduled or dispatched demand quantity of the dispatch-capable load station, as the case may be.</p> <p>...</p> <p>13.44 How quantity is to be specified in reserve offers</p> <p>(1) For each price band, a reserve offer <u>submitted by an ancillary service agent that is not a battery energy storage owner</u> must specify the quantity of instantaneous reserve offered to respond as fast instantaneous reserve and/or sustained instantaneous reserve—</p> <ul style="list-style-type: none"> (a) as the generation available to be injected as a proportion of electricity output up to a specified maximum quantity for partly loaded spinning reserve; or (b) as the generation available to be injected for all other categories of generation reserve; or (c) as the demand available to be reduced for interruptible load. <p><u>(1A) For each price band, a reserve offer submitted by an ancillary service agent that is a battery energy storage owner must specify the quantity of instantaneous reserve offered to respond as fast instantaneous reserve and/or sustained instantaneous reserve—</u></p> <ul style="list-style-type: none"> <u>(a) as the generation available to be injected for generation reserve if unconstrained by state of charge; or</u> <u>(b) as the demand available to be reduced for interruptible load if unconstrained by state of charge.</u> <p>(2) The quantity that may be offered in a price band for a trading period</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p style="text-align: center;">no change</p>	<p>must be expressed in MW to not more than 3 decimal places and must not be less than 0.000 MW.</p> <p>13.46 Reserve offer may be revised</p> <p>(1) Subject to subclauses (1A) and (1B), an ancillary service agent may revise a reserve offer at any time before the end of the trading period in respect of which the reserve offer is made by submitting a new reserve offer to the system operator.</p> <p>(1A) An ancillary service agent must not revise its reserve offer prices during a gate closure period.</p> <p>(1B) An ancillary service agent must 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.</p> <p>(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 before the beginning of the trading period in respect of which the reserve offer is made.</p> <p>(3) Before the end of the trading period to which the reserve offer applies, and despite clauses 13.97 to 13.101, an ancillary service agent <u>that is not a battery energy storage system owner</u> must immediately submit a revised reserve offer in respect of MW offered to the system operator if—</p> <p style="margin-left: 40px;">(a) the MW specified in any price band in the reserve offer no longer represents a reasonable estimate of the instantaneous reserve available from the ancillary service agent at the grid injection point, grid exit point or interruptible load group GXP</p> <p style="margin-left: 40px;">(b) <i>[Revoked]</i></p> <p><u>(3A) Before the end of the trading period to which the reserve offer applies, and despite clauses 13.97 to 13.101, an ancillary service</u></p>

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

13.57 The dispatch objective
The **system operator’s dispatch objective** is to maximise for each **half hour** the gross economic benefits to all **purchasers** of **electricity** at the **grid exit points**, less the cost of supplying the **electricity** at the **grid injection points** and the costs of **ancillary services** purchased by the **system operator** under subpart 3 of Part 8, in accordance with the methodology set out in Schedule 13.3, subject to—

- (a) the capability of generation, **dispatch-capable load stations** or **battery energy storage system stations** for which a **nominated dispatch bid** was submitted, and **ancillary services** and the configuration and capacity of the **grid** and information made available by **asset owners**; and
- (b) achieving the **principal performance obligations** and any arrangements of the type described in clause 8.6; and
- (c) meeting the requirements of clause 8.5 in relation to restoration of the power system—

provided that in the case of any conflict between paragraphs (b) and (c), paragraph (c) takes priority.

...

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

agent that is a battery energy storage system owner must immediately submit a revised reserve offer in respect of MW offered to the system operator if the MW specified in any price band in the reserve offer exceeds—

- (a) in respect of **interruptible load**, a reasonable estimate of the adjusted consumption capacity for the **ancillary service agent’s battery energy storage system station**; or
- (b) in respect of **generation reserve**, a reasonable estimate of the adjusted generation capacity for the **ancillary service agent’s battery energy storage system station**.

13.57 The dispatch objective
The **system operator’s dispatch objective** is to maximise for each **half hour** the gross economic benefits to all **purchasers** of **electricity** at the **grid exit points**, less the cost of supplying the **electricity** at the **grid injection points** and the costs of **ancillary services** purchased by the **system operator** under subpart 3 of Part 8, in accordance with the methodology set out in Schedule 13.3, subject to—

- (a) the capability of generation, **dispatch-capable load stations** or **battery energy storage system stations** for which a **nominated dispatch bid** was submitted, and **ancillary services** and the configuration and capacity of the **grid** and information made available by **asset owners**; and
- (b) achieving the **principal performance obligations** and any arrangements of the type described in clause 8.6; and
- (c) meeting the requirements of clause 8.5 in relation to restoration of the power system—

provided that in the case of any conflict between paragraphs (b) and (c), paragraph (c) takes priority.

...

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>no change</p>	<p>13.58A Inputs for price-responsive schedule and non-response schedule</p> <p>(1) The system operator must prepare a price-responsive schedule using the following inputs:</p> <ul style="list-style-type: none"> (a) offers and reserve offers; and (aa) the potential output of all intermittent generating stations, determined using the most recent forecast of generation potential for each intermittent generating station submitted under clause 13.18A; and <u>(ab) for all battery energy storage system stations:</u> <ul style="list-style-type: none"> <u>(i) the current telemetered reading of the state of charge for that battery energy storage system station; and</u> <u>(ii) any additional operational parameter agreed between the battery energy storage system owner and the system operator; and</u> (b) nominated bids; and (c) the forecast prepared by the system operator under clause 13.7A(1); and (d) difference bids; and (e) information provided to the system operator by a grid owner under clauses 13.29 to 13.34 about— <ul style="list-style-type: none"> (i) the AC transmission system configuration, capacity, and losses; and (ii) the capability of the HVDC link including the HVDC link configuration, the capacity of the HVDC link, the losses in the HVDC link, the direction of any transfer limit on the HVDC link, and any minimum or maximum transfer limits on the HVDC link; and (iii) transformer configuration, capacity, and losses; and

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
	<ul style="list-style-type: none"> (f) the adjustments specified in subclause (2)(e), subject to any exceptions specified in the policy statement; and (g) information about voltage support from contracts held by the system operator under the procurement plan; and (h) information from ancillary service agents about instantaneous reserves procured under the procurement plan; and (i) any price and quantity values assigned by the system operator under clause 13.58AA(1)(a). <p>(2) The system operator must prepare a non-response schedule using the following inputs:</p> <ul style="list-style-type: none"> (a) offers, nominated dispatch bids, and reserve offers; and (aa) the potential output of all intermittent generating stations, determined using the most recent forecast of generation potential for each intermittent generating station submitted under clause 13.18A; and <u>(ab) for all battery energy storage system stations:</u> <ul style="list-style-type: none"> <u>(i) the current telemetered reading of the state of charge for that battery energy storage system station; and</u> <u>(ii) any additional operational parameter agreed between the battery energy storage system owner and the system operator; and</u> (b) nominated non-dispatch bid quantities (where, in the case of a nominated non-dispatch bid submitted by a dispatch notification purchaser, the relevant quantity is 0 MW); and (c) the forecast prepared by the system operator under clause 13.7A(1); and (d) information provided to the system operator by a grid owner under clauses 13.29 to 13.34 referring to—

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>13.69B Inputs for dispatch schedule</p> <p>(1) The system operator must use the following inputs to prepare a dispatch schedule:</p> <p>(a) offers and reserve offers, excluding the following:</p> <ul style="list-style-type: none"> (i) offers submitted by an intermittent generator under clause 13.6: (ii) revised offers submitted by an intermittent generator under clause 13.18A: (iii) offers submitted by a type B co-generator under clause 13.6: (iv) revised offers submitted by a type B co-generator under clause 13.17; and 	<ul style="list-style-type: none"> (i) the AC transmission system configuration, capacity, and losses; and (ii) the capability of the HVDC link including the HVDC link configuration, the capacity of the HVDC link, the losses in the HVDC link, the direction of any transfer limit on the HVDC link, and any minimum or maximum transfer limits on the HVDC link; and (iii) transformer configuration, capacity, and losses; and (e) adjustments made by the system operator under clause 13(1) of Schedule 13.3, in order to meet the dispatch objective; and (f) information about voltage support from contracts held by the system operator under the procurement plan; and (g) information from ancillary service agents about instantaneous reserves procured under the procurement plan; and (h) any price and quantity values assigned by the system operator under clause 13.58AA(1)(b). <p>...</p> <p>13.69B Inputs for dispatch schedule</p> <p>(1) The system operator must use the following inputs to prepare a dispatch schedule:</p> <p>(a) offers and reserve offers, excluding the following:</p> <ul style="list-style-type: none"> (i) offers submitted by an intermittent generator under clause 13.6: (ii) revised offers submitted by an intermittent generator under clause 13.18A: (iii) offers submitted by a type B co-generator under clause 13.6: (iv) revised offers submitted by a type B co-generator under clause 13.17; and

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<ul style="list-style-type: none"> (b) the quantities and prices specified in nominated dispatch bids (clause 13.7) and the quantities and prices specified in revised nominated dispatch bids (clauses 13.19AAA, 13.19A and 13.19B): (c) any price and quantity values assigned by the system operator under clause 13.69AA: (d) the expected profile of demand until the next dispatch schedule is produced by the system operator, where in an unsupplied demand situation— <ul style="list-style-type: none"> (i) the expected profile of demand used to calculate dispatch instructions and dispatch notifications must reflect the demand expected to be supplied by the available offers; and (ii) the expected profile of demand used to calculate dispatch price must be adjusted for the demand that was unable to be supplied by the available offers that was assigned a value by the system operator under clause 13.69AA(a), in accordance with the processes set out in Schedule 13.3AA: (e) the potential output of all intermittent generating stations, determined in accordance with subclause (4): (f) the current output levels of each generator or, if no such data is available, a reasonable estimate of the current output levels of each generator: (g) information from the grid owner (clauses 13.29 to 13.34) and revised information from the grid owner (clause 13.33) about— <ul style="list-style-type: none"> (i) the AC transmission system configuration, capacity and losses; and 	<ul style="list-style-type: none"> (b) the quantities and prices specified in nominated dispatch bids (clause 13.7) and the quantities and prices specified in revised nominated dispatch bids (clauses 13.19AAA, 13.19A and 13.19B): (c) any price and quantity values assigned by the system operator under clause 13.69AA: (d) the expected profile of demand until the next dispatch schedule is produced by the system operator, where in an unsupplied demand situation— <ul style="list-style-type: none"> (i) the expected profile of demand used to calculate dispatch instructions and dispatch notifications must reflect the demand expected to be supplied by the available offers; and (ii) the expected profile of demand used to calculate dispatch price must be adjusted for the demand that was unable to be supplied by the available offers that was assigned a value by the system operator under clause 13.69AA(a), in accordance with the processes set out in Schedule 13.3AA: (e) the potential output of all intermittent generating stations, determined in accordance with subclause (4): (f) the current output levels of each generator or, if no such data is available, a reasonable estimate of the current output levels of each generator: (g) information from the grid owner (clauses 13.29 to 13.34) and revised information from the grid owner (clause 13.33) about— <ul style="list-style-type: none"> (i) the AC transmission system configuration, capacity and losses; and

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<ul style="list-style-type: none"> (ii) the capability of the HVDC link including the HVDC link configuration, the capacity of the HVDC link, the losses in the HVDC link, the direction of any transfer limit on the HVDC link, and any minimum or maximum transfer limits on the HVDC link; and (iii) transformer configuration, capacity and losses: (h) information about voltage support: (i) the price order in the current dispatch schedule: (j) in relation to intermittent generators, any ramp rates agreed between the intermittent generator and the system operator (2) The system operator must incorporate, in each schedule prepared, any adjustments to the inputs described in subclause (1) that may be required to meet the dispatch objective. (3) The system operator must use the information provided under clause 13.69AAA as part of its calculation of the expected profile of demand. (4) The system operator must, in determining the potential output of an intermittent generating station for the purposes of subclause (1)(e), use the following information: <ul style="list-style-type: none"> (a) if the most recent dispatch instruction to the relevant intermittent generator for the intermittent generating station was not flagged, the actual output in MW of the intermittent generating station: (b) if the most recent dispatch instruction to the relevant intermittent generator for the intermittent generating station was flagged, the greater of— <ul style="list-style-type: none"> (i) the forecast of generation potential specified in the intermittent generator's final offer for the relevant intermittent generating station submitted under clause 13.18A; and 	<ul style="list-style-type: none"> (ii) the capability of the HVDC link including the HVDC link configuration, the capacity of the HVDC link, the losses in the HVDC link, the direction of any transfer limit on the HVDC link, and any minimum or maximum transfer limits on the HVDC link; and (iii) transformer configuration, capacity and losses: (h) information about voltage support: (i) the price order in the current dispatch schedule: (j) in relation to intermittent generators, any ramp rates agreed between the intermittent generator and the system operator: <u>(k) in relation to each battery energy storage system station:</u> <ul style="list-style-type: none"> <u>(i) the current telemetered reading of the state of charge for that battery energy storage system station or, if no such data is available for any reason, a reasonable estimate of that battery energy storage system station; and</u> <u>(ii) any additional operational parameter agreed between the battery energy storage system owner and the system operator.</u> (2) The system operator must incorporate, in each schedule prepared, any adjustments to the inputs described in subclause (1) that may be required to meet the dispatch objective. (3) The system operator must use the information provided under clause 13.69AAA as part of its calculation of the expected profile of demand. (4) The system operator must, in determining the potential output of an intermittent generating station for the purposes of subclause (1)(e), use the following information: <ul style="list-style-type: none"> (a) if the most recent dispatch instruction to the relevant intermittent generator for the intermittent generating

Proposed INTERIM Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

- (ii) the actual output in **MW** of the **intermittent generating station**:
 - (c) if the **intermittent generator** and the **system operator** have agreed in writing that an alternative estimate may be provided, the alternative estimate of the potential output of the **intermittent generating station** provided by the relevant **intermittent generator**.
- ...

13.72 System operator to issue dispatch instructions and dispatch notifications

- (1) The **system operator** must implement each **dispatch schedule**, and any departure from a **dispatch schedule** under clause 13.70 by—
 - (a) issuing **dispatch instructions** to,—
 - (i) **generators**; and
 - (ii) **ancillary service agents**; and
 - (iii) **dispatchable load purchasers** (other than **dispatch notification purchasers**) and battery energy storage system owners that have submitted **nominated dispatch bids**; and
 - (b) issuing **dispatch notifications** to **dispatch notification purchasers** and **dispatch notification generators**.

Proposed FINAL Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

- station** was not flagged, the actual output in **MW** of the **intermittent generating station**:
 - (b) if the most recent **dispatch instruction** to the relevant **intermittent generator** for the **intermittent generating station** was flagged, the greater of—
 - (i) the forecast of generation potential specified in the **intermittent generator's final offer** for the relevant **intermittent generating station** submitted under clause 13.18A; and
 - (ii) the actual output in **MW** of the **intermittent generating station**:
 - (c) if the **intermittent generator** and the **system operator** have agreed in writing that an alternative estimate may be provided, the alternative estimate of the potential output of the **intermittent generating station** provided by the relevant **intermittent generator**.
- ...

13.72 System operator to issue dispatch instructions and dispatch notifications

- (1) The **system operator** must implement each **dispatch schedule**, and any departure from a **dispatch schedule** under clause 13.70 by—
 - (a) issuing **dispatch instructions** to,—
 - (i) **generators**; and
 - (ii) **ancillary service agents**; and
 - (iii) **dispatchable load purchasers** (other than **dispatch notification purchasers**) and battery energy storage system owners that have submitted **nominated dispatch bids**; and
 - (b) issuing **dispatch notifications** to **dispatch notification purchasers** and **dispatch notification generators**.

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>(2) The system operator must issue each dispatch instruction and each dispatch notification in a reasonable and timely manner to enable the participant to which the dispatch instruction or dispatch notification is issued to comply with the dispatch instruction or dispatch notification.</p> <p>(3) Despite subclause (1), the system operator is not required to issue a dispatch instruction to a participant if—</p> <ul style="list-style-type: none"> (a) the dispatch instruction is— <ul style="list-style-type: none"> (i) to provide a quantity of active power under clause 13.73(1)(a); or (ii) to provide a quantity of instantaneous reserve under clause 13.73(1)(b); and (b) the dispatch instruction would differ from the most recent dispatch instruction issued to the participant by 1 MW or less. <p>...</p>	<p>(2) The system operator must issue each dispatch instruction and each dispatch notification in a reasonable and timely manner to enable the participant to which the dispatch instruction or dispatch notification is issued to comply with the dispatch instruction or dispatch notification.</p> <p>(3) Despite subclause (1), the system operator is not required to issue a dispatch instruction to a participant if—</p> <ul style="list-style-type: none"> (a) the dispatch instruction is— <ul style="list-style-type: none"> (i) to provide a quantity of active power under clause 13.73(1)(a); or (ii) to provide a quantity of instantaneous reserve under clause 13.73(1)(b); and (b) the dispatch instruction would differ from the most recent dispatch instruction issued to the participant by 1 MW or less. <p>...</p>
<p>13.73 Content of dispatch instructions and dispatch notifications</p> <p>(1) The system operator must ensure that each dispatch instruction and dispatch notification it issues under clause 13.72(1) instructs the generator, ancillary service agent, or dispatchable load purchaser or battery energy storage system owner to carry out 1 of the following:</p> <ul style="list-style-type: none"> (a) provide a quantity of active power: (b) provide a quantity of instantaneous reserve: (c) provide a quantity and quality of reserve power or alternative to regulate frequency continuously: (d) provide a quantity of reactive power: (e) adjust transformer tap positions to maintain voltage levels: (f) provide a level of voltage: 	<p>13.73 Content of dispatch instructions and dispatch notifications</p> <p>(1) The system operator must ensure that each dispatch instruction and dispatch notification it issues under clause 13.72(1) instructs the generator, ancillary service agent, or dispatchable load purchaser or battery energy storage system owner to carry out 1 of the following:</p> <ul style="list-style-type: none"> (a) provide a quantity of active power: (b) provide a quantity of instantaneous reserve: (c) provide a quantity and quality of reserve power or alternative to regulate frequency continuously: (d) provide a quantity of reactive power: (e) adjust transformer tap positions to maintain voltage levels: (f) provide a level of voltage:

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>(g) synchronise or de-synchronise generating plant within the current trading period or the next trading period either directly or in accordance with any process that may be agreed with the generator:</p> <p>(h) switch on or switch off schemes for over frequency tripping where such capability exists in generating plant that a generator has offered to provide to the system operator:</p> <p>(i) manage the generating plant within a block dispatch group or station dispatch group so as to ensure the largest single reserve risk within that block dispatch group or station dispatch group does not exceed the relevant maximum reserve risk advised by the system operator for the North Island or the South Island for each trading period:</p> <p>(j) manage the total aggregate generation for each sub-block dispatch group or sub-station dispatch group for that generator so as not to exceed the total sum of the dispatched quantities for each generating plant or generating unit comprising that sub-block dispatch group or sub-station dispatch group for the duration of the notice received under clauses 13.60, 13.61, or 13.64 to 13.66:</p> <p>(k) manage the total aggregate generation for each block dispatch group or station dispatch group for that generator so as to meet the total sum of the dispatched quantities for each generating station or generating unit comprising that block dispatch group or station dispatch group:</p> <p>(l) use a specified quantity of electricity.</p> <p>(1A) The system operator must include an indication (flag) in each dispatch instruction it issues to an intermittent generator under clause 13.72(1)(a) if the intermittent generator is dispatched for a</p>	<p>(g) synchronise or de-synchronise generating plant within the current trading period or the next trading period either directly or in accordance with any process that may be agreed with the generator:</p> <p>(h) switch on or switch off schemes for over frequency tripping where such capability exists in generating plant that a generator has offered to provide to the system operator:</p> <p>(i) manage the generating plant within a block dispatch group or station dispatch group so as to ensure the largest single reserve risk within that block dispatch group or station dispatch group does not exceed the relevant maximum reserve risk advised by the system operator for the North Island or the South Island for each trading period:</p> <p>(j) manage the total aggregate generation for each sub-block dispatch group or sub-station dispatch group for that generator so as not to exceed the total sum of the dispatched quantities for each generating plant or generating unit comprising that sub-block dispatch group or sub-station dispatch group for the duration of the notice received under clauses 13.60, 13.61, or 13.64 to 13.66:</p> <p>(k) manage the total aggregate generation for each block dispatch group or station dispatch group for that generator so as to meet the total sum of the dispatched quantities for each generating station or generating unit comprising that block dispatch group or station dispatch group:</p> <p>(l) use a specified quantity of electricity.</p> <p>(1A) The system operator must include an indication (flag) in each dispatch instruction it issues to an intermittent generator under clause 13.72(1)(a) if the intermittent generator is dispatched for a</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>trading period at a quantity less than the potential output of the relevant intermittent generating station.</p> <p>(1B) For the purposes of subclause (1A), the potential output of an intermittent generating station is the potential output for the relevant intermittent generating station determined by the system operator under clause 13.69B(4).</p> <p>(2) <i>[Revoked]</i></p> <p>...</p> <p>13.75 Form of dispatch instruction and dispatch notification</p> <p>(1) When issuing a dispatch instruction or dispatch notification under clause 13.72(1), the system operator must specify—</p> <ul style="list-style-type: none"> (a) the generating plant, generating unit, block dispatch group, station dispatch group, interruptible load, dispatch-capable load station, <u>battery energy storage system station</u> or frequency keeping units to which the dispatch instruction or dispatch notification applies; and (b) the desired outcome of the dispatch instruction or dispatch notification; and (c) if the start time for the dispatch instruction or dispatch notification differs from the issue time, the start time within the current trading period or the next trading period; and (d) if specific ramp rates are concerned, a specific target time to reach the desired outcome; and (e) the time at which the dispatch instruction or dispatch notification was issued; and (f) any block security constraint that occurs within a block dispatch group and how the block security constraint divides the generating stations or generating units of a block dispatch group into sub-block dispatch groups as part of such a dispatch instruction or dispatch notification; and 	<p>trading period at a quantity less than the potential output of the relevant intermittent generating station.</p> <p>(1B) For the purposes of subclause (1A), the potential output of an intermittent generating station is the potential output for the relevant intermittent generating station determined by the system operator under clause 13.69B(4).</p> <p>(2) <i>[Revoked]</i></p> <p>...</p> <p>13.75 Form of dispatch instruction and dispatch notification</p> <p>(1) When issuing a dispatch instruction or dispatch notification under clause 13.72(1), the system operator must specify—</p> <ul style="list-style-type: none"> (i) the generating plant, generating unit, block dispatch group, station dispatch group, interruptible load, dispatch-capable load station, <u>battery energy storage system station</u> or frequency keeping units to which the dispatch instruction or dispatch notification applies; and (j) the desired outcome of the dispatch instruction or dispatch notification; and (k) if the start time for the dispatch instruction or dispatch notification differs from the issue time, the start time within the current trading period or the next trading period; and (l) if specific ramp rates are concerned, a specific target time to reach the desired outcome; and (m) the time at which the dispatch instruction or dispatch notification was issued; and (n) any block security constraint that occurs within a block dispatch group and how the block security constraint divides the generating stations or generating units of a block dispatch group into sub-block dispatch groups as part of such a dispatch instruction or dispatch notification; and

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>(g) any station security constraint that occurs within a station dispatch group and how the station security constraint divides the generating stations or generating units of a station dispatch group into sub-station dispatch groups; and</p> <p>(h) if it is a dispatch instruction or dispatch notification specified in clause 13.73(1)(i), the maximum reserve risk for the relevant island; and</p> <p>(i) when issuing a dispatch instruction or dispatch notification to a dispatchable load purchaser, the trading period for which the dispatch instruction or dispatch notification is issued.</p>	<p>(o) any station security constraint that occurs within a station dispatch group and how the station security constraint divides the generating stations or generating units of a station dispatch group into sub-station dispatch groups; and</p> <p>(p) if it is a dispatch instruction or dispatch notification specified in clause 13.73(1)(i), the maximum reserve risk for the relevant island; and</p> <p>(i) when issuing a dispatch instruction or dispatch notification to a dispatchable load purchaser, the trading period for which the dispatch instruction or dispatch notification is issued.</p>
<p>13.76 System operator to issue and log dispatch instructions and dispatch notifications</p> <p>(1) The system operator must issue dispatch instructions and dispatch notifications—</p> <p>(a) to each generator <u>and each battery energy storage system owner</u> (other than a generator <u>or battery energy storage system owner</u> receiving dispatch instructions in its capacity as an ancillary service agent) and each dispatchable load purchaser, using an approved system; and</p> <p>...</p>	<p>13.76 System operator to issue and log dispatch instructions and dispatch notifications</p> <p>(1) The system operator must issue dispatch instructions and dispatch notifications—</p> <p>(a) to each generator <u>and each battery energy storage system owner</u> (other than a generator <u>or battery energy storage system owner</u> receiving dispatch instructions in its capacity as an ancillary service agent) and each dispatchable load purchaser, using an approved system; and</p> <p>...</p>
<p>13.82 Dispatch instructions to be complied with</p> <p>(1) This clause applies to—</p> <p>(a) a generator; and</p> <p>(b) an ancillary service agent; and</p> <p>(c) a dispatched purchaser; <u>and</u></p> <p><u>(d) a battery energy storage system owner.</u></p> <p>(2) Each participant to which this clause applies must comply with a dispatch instruction properly issued by the system operator under</p>	<p>13.82 Dispatch instructions to be complied with</p> <p>(1) This clause applies to—</p> <p>(a) a generator; and</p> <p>(b) an ancillary service agent; and</p> <p>(c) a dispatched purchaser; <u>and</u></p> <p><u>(d) a battery energy storage system owner.</u></p> <p>(2) Each participant to which this clause applies must comply with a dispatch instruction properly issued by the system operator under</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>clause 13.72(1)(a) unless,—</p> <ul style="list-style-type: none"> (a) in the participant's reasonable opinion,— <ul style="list-style-type: none"> (i) personnel or plant safety is at risk; or (ii) following the dispatch instruction will contravene a law; <p>or</p> <ul style="list-style-type: none"> (b) the generating plant, <u>battery energy storage system</u> or dispatch-capable load station is already responding to an automated signal to activate— <ul style="list-style-type: none"> (i) capacity reserve; or (ii) instantaneous reserve; or (iii) automatic under-frequency load shedding; or (iv) over frequency reserve; or (c) the participant is a generator or ancillary service agent acting in accordance with clause 13.86; or (d) the participant is an intermittent generator and— <ul style="list-style-type: none"> (i) is generating electricity during a trading period at a rate that is not more than 30MW below the forecast of generation potential specified in the intermittent generator's final offer; and (ii) the system operator has not flagged the dispatch instruction in accordance with clause 13.73(1A); or (e) the participant— <ul style="list-style-type: none"> (i) is a generator; and (ii) deviates from a dispatch instruction for active power to comply with clause 8.17; or (f) the participant— <ul style="list-style-type: none"> (i) is a dispatched purchaser <u>or battery energy storage system owner</u>; and (ii) deviates from the dispatch instruction— <ul style="list-style-type: none"> (A) to comply with a request issued by the system 	<p>clause 13.72(1)(a) unless,—</p> <ul style="list-style-type: none"> (a) in the participant's reasonable opinion,— <ul style="list-style-type: none"> (i) personnel or plant safety is at risk; or (ii) following the dispatch instruction will contravene a law; <p>or</p> <ul style="list-style-type: none"> (b) the generating plant, <u>battery energy storage system</u> or dispatch-capable load station is already responding to an automated signal to activate— <ul style="list-style-type: none"> (i) capacity reserve; or (ii) instantaneous reserve; or (iii) automatic under-frequency load shedding; or (iv) over frequency reserve; or (c) the participant is a generator or ancillary service agent acting in accordance with clause 13.86; or (d) the participant is an intermittent generator and— <ul style="list-style-type: none"> (i) is generating electricity during a trading period at a rate that is not more than 30MW below the forecast of generation potential specified in the intermittent generator's final offer; and (ii) the system operator has not flagged the dispatch instruction in accordance with clause 13.73(1A); or (e) the participant— <ul style="list-style-type: none"> (i) is a generator; and (ii) deviates from a dispatch instruction for active power to comply with clause 8.17; or (f) the participant— <ul style="list-style-type: none"> (i) is a dispatched purchaser <u>or battery energy storage system owner</u>; and (ii) deviates from the dispatch instruction— <ul style="list-style-type: none"> (A) to comply with a request issued by the system

Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)	Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)
<p style="text-align: center;">operator under clause 5(4) of Technical Code B of Schedule 8.3; or</p> <p style="text-align: center;">(B) to comply with clause 8.18; or</p> <p>(g) the participant—</p> <p style="padding-left: 20px;">(i) is a dispatched purchaser <u>or battery energy storage system owner</u>; and</p> <p style="padding-left: 20px;">(ii) cannot comply with the dispatch instruction because demand has been electrically disconnected under clause 7(20) of Technical Code B of Schedule 8.3; or</p> <p>(ga) the participant—</p> <p style="padding-left: 20px;">(i) is a dispatched purchaser; and</p> <p style="padding-left: 20px;">(ii) the dispatch instruction is issued for a trading period for which the latest nominated bid for the relevant dispatch-capable load station is a nominated non-dispatch bid; or</p> <p>(h) the participant—</p> <p style="padding-left: 20px;">(i) is a generator or an ancillary service agent; and</p> <p style="padding-left: 20px;">(ii) deviates from a dispatch instruction to comply with clause 9 of Technical Code B of Schedule 8.3; or</p> <p>(i) the participant—</p> <p style="padding-left: 20px;">(i) is a generator or an ancillary service agent; and</p> <p style="padding-left: 20px;">(ii) is acting in accordance with a commissioning plan or test plan that—</p> <p style="padding-left: 40px;">(A) is required under clause 2(6) of Technical Code A of Schedule 8.3; and</p> <p style="padding-left: 40px;">(B) expressly allows the generator or ancillary service agent to depart from the dispatch instruction for the purpose of the commissioning plan or test plan; and</p> <p style="padding-left: 20px;">(iii) has no reasonable means of complying with the dispatch</p>	<p style="text-align: center;">operator under clause 5(4) of Technical Code B of Schedule 8.3; or</p> <p style="text-align: center;">(B) to comply with clause 8.18; or</p> <p>(g) the participant—</p> <p style="padding-left: 20px;">(i) is a dispatched purchaser <u>or battery energy storage system owner</u>; and</p> <p style="padding-left: 20px;">(ii) cannot comply with the dispatch instruction because demand has been electrically disconnected under clause 7(20) of Technical Code B of Schedule 8.3; or</p> <p>(ga) the participant—</p> <p style="padding-left: 20px;">(i) is a dispatched purchaser; and</p> <p style="padding-left: 20px;">(ii) the dispatch instruction is issued for a trading period for which the latest nominated bid for the relevant dispatch-capable load station is a nominated non-dispatch bid; or</p> <p>(h) the participant—</p> <p style="padding-left: 20px;">(i) is a generator or an ancillary service agent; and</p> <p style="padding-left: 20px;">(ii) deviates from a dispatch instruction to comply with clause 9 of Technical Code B of Schedule 8.3; or</p> <p>(i) the participant—</p> <p style="padding-left: 20px;">(i) is a generator or an ancillary service agent; and</p> <p style="padding-left: 20px;">(ii) is acting in accordance with a commissioning plan or test plan that—</p> <p style="padding-left: 40px;">(A) is required under clause 2(6) of Technical Code A of Schedule 8.3; and</p> <p style="padding-left: 40px;">(B) expressly allows the generator or ancillary service agent to depart from the dispatch instruction for the purpose of the commissioning plan or test plan; and</p> <p style="padding-left: 20px;">(iii) has no reasonable means of complying with the dispatch</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p style="text-align: center;">instruction while acting in accordance with the commissioning plan or test plan; or</p> <p>(j) the participant is a type B co-generator and the system operator has not advised that there is—</p> <ul style="list-style-type: none"> (i) a grid emergency; or (ii) a system constraint that directly affects the type B co-generator. <p>(3) A participant to which the exception in subclause (2)(a) applies must immediately advise the system operator of the circumstance in which the exception arises.</p> <p>(4) If a dispatched purchaser is issued with more than 1 dispatch instruction for the same dispatch-capable load station for the same trading period, the dispatched purchaser must comply with the latest dispatch instruction.</p> <p>(5) To avoid doubt, a dispatch instruction listed in clause 13.73(1)(b) to 13.73(1)(f) or 13.73(1)(h) is properly issued only if—</p> <ul style="list-style-type: none"> (a) the generator or ancillary service agent to which the dispatch instruction is given has an enforceable contract with the system operator for the provision of services relating to the dispatch instruction; or (b) the dispatch instruction is consistent with an enforceable contract between the system operator and the generator or ancillary service agent for the provision of services relating to the dispatch instruction; or (c) the dispatch instruction is given for the purposes of clause 8.5 or 13.70; or (d) the dispatch instruction is consistent with— <ul style="list-style-type: none"> (i) the asset owner performance obligations under clauses 8.22 to 8.24; or (ii) the technical codes concerning voltage; or 	<p style="text-align: center;">instruction while acting in accordance with the commissioning plan or test plan; or</p> <p>(j) the participant is a type B co-generator and the system operator has not advised that there is—</p> <ul style="list-style-type: none"> (i) a grid emergency; or (ii) a system constraint that directly affects the type B co-generator. <p>(3) A participant to which the exception in subclause (2)(a) applies must immediately advise the system operator of the circumstance in which the exception arises.</p> <p>(4) If a dispatched purchaser is issued with more than 1 dispatch instruction for the same dispatch-capable load station for the same trading period, the dispatched purchaser must comply with the latest dispatch instruction.</p> <p>(5) To avoid doubt, a dispatch instruction listed in clause 13.73(1)(b) to 13.73(1)(f) or 13.73(1)(h) is properly issued only if—</p> <ul style="list-style-type: none"> (a) the generator or ancillary service agent to which the dispatch instruction is given has an enforceable contract with the system operator for the provision of services relating to the dispatch instruction; or (b) the dispatch instruction is consistent with an enforceable contract between the system operator and the generator or ancillary service agent for the provision of services relating to the dispatch instruction; or (c) the dispatch instruction is given for the purposes of clause 8.5 or 13.70; or (d) the dispatch instruction is consistent with— <ul style="list-style-type: none"> (i) the asset owner performance obligations under clauses 8.22 to 8.24; or (ii) the technical codes concerning voltage; or

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

(iii) a **dispensation**.

(6) A **dispatched purchaser** issued with a **dispatch instruction** for a **dispatch-capable load station** must not make changes to its other load at the same **GXP** with the intention of offsetting the **dispatch instruction** for the **dispatch-capable load station**.

...

13.83A Dispatchable load purchasers to make staff or facilities available to meet dispatch instructions and dispatch notifications

(1) Each **dispatchable load purchaser, or battery energy storage system owner**, that has submitted a **nominated dispatch bid** must ensure that appropriate personnel or facilities are available to receive and comply with each **dispatch instruction** or **dispatch notification** issued to the **dispatchable load purchaser or battery energy storage system owner**.

(2) Nothing in this clause limits the ability of a **dispatchable load purchaser or battery energy storage system owner** to have a control centre that operates 1 or more **dispatch-capable load stations or battery energy storage system stations** by remote control.

...

13.105A Information to be made available to purchasers, generators, and ancillary service agents

(1) At the same time as the **system operator** is required to make information available in accordance with clause 13.104(1), the **system operator** must make available on **WITS**—

(aa) for each **dispatchable load purchaser** that has submitted a **nominated dispatch bid**, information from the current **non-response schedule** relating to the scheduling of the **dispatchable load purchaser’s nominated dispatch bids** for the **trading periods** covered in the **schedule length period**; and

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

(iii) a **dispensation**.

(6) A **dispatched purchaser** issued with a **dispatch instruction** for a **dispatch-capable load station** must not make changes to its other load at the same **GXP** with the intention of offsetting the **dispatch instruction** for the **dispatch-capable load station**.

...

13.83A Dispatchable load purchasers to make staff or facilities available to meet dispatch instructions and dispatch notifications

(1) Each **dispatchable load purchaser, or battery energy storage system owner**, that has submitted a **nominated dispatch bid** must ensure that appropriate personnel or facilities are available to receive and comply with each **dispatch instruction** or **dispatch notification** issued to the **dispatchable load purchaser or battery energy storage system owner**.

(2) Nothing in this clause limits the ability of a **dispatchable load purchaser or battery energy storage system owner** to have a control centre that operates 1 or more **dispatch-capable load stations or battery energy storage system stations** by remote control.

...

13.105A Information to be made available to purchasers, generators, and ancillary service agents

(1) At the same time as the **system operator** is required to make information available in accordance with clause 13.104(1), the **system operator** must make available on **WITS**—

(aa) for each **dispatchable load purchaser** that has submitted a **nominated dispatch bid**, information from the current **non-response schedule** relating to the scheduling of the **dispatchable load purchaser’s nominated dispatch bids** for the **trading periods** covered in the **schedule length period**; and

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>(a) for each purchaser, information from the current price-responsive schedule relating to the scheduling of the purchaser’s bids for the trading periods covered in the schedule length period; and</p> <p>(b) for each generator, information from the current price-responsive schedule and non-response schedule relating to the scheduling of the generator’s offers for the trading periods covered in the schedule length period; and</p> <p>(c) for each ancillary service agent who has submitted a reserve offer for the scheduling period, information from the current price-responsive schedule and non-response schedule relating to the scheduling of the ancillary service agent’s reserve offers for the trading periods covered in the schedule length period; and</p> <p><u>(d) for each battery energy storage system owner that has submitted an offer or bid, information on the capped quantities scheduled for the battery energy storage system owner’s battery energy storage system stations from the current price-responsive schedule and non-response schedule relating to the scheduling of the battery energy storage system owner’s offers or bids for the trading periods covered in the schedule length period.</u></p> <p>...</p>	<p>(a) for each purchaser, information from the current price-responsive schedule relating to the scheduling of the purchaser’s bids for the trading periods covered in the schedule length period; and</p> <p>(b) for each generator, information from the current price-responsive schedule and non-response schedule relating to the scheduling of the generator’s offers for the trading periods covered in the schedule length period; and</p> <p>(c) for each ancillary service agent who has submitted a reserve offer for the scheduling period, information from the current price-responsive schedule and non-response schedule relating to the scheduling of the ancillary service agent’s reserve offers for the trading periods covered in the schedule length period; and</p> <p><u>(d) for each battery energy storage system owner that has submitted an offer or bid, information on the capped quantities scheduled for the battery energy storage system owner’s battery energy storage system stations from the current price-responsive schedule and non-response schedule relating to the scheduling of the battery energy storage system owner’s offers or bids for the trading periods covered in the schedule length period.</u></p> <p>...</p>

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

Calculation of constrained off amounts

...

13.194 Clearing manager to calculate constrained off amounts

...

(2) If a **constrained off situation** occurs in relation to a **dispatch-capable load station or battery energy storage system station** during a **trading period**, the **clearing manager** must calculate the **constrained off amounts** for each **dispatch-capable load station or battery energy storage system station**, for each affected **nominated dispatch bid price band**, using the following formula:

$$\text{ConOffAmtdisp} = \text{ConOffQ} * (\text{Pb} - \text{Pf})$$

where

ConOffAmtdisp is the **constrained off amount** for a **dispatch-capable load station or battery energy storage system station** for the **nominated dispatch bid price band**

...

13.199 Clearing manager to make details of constrained off amounts available

The **clearing manager** must, at the time specified in clause 13.197, **publish** the details of **constrained off amounts** for each **generator** and each **dispatched purchaser** for the previous **billing period** as follows:

- (a) the **constrained off amounts** calculated in accordance with clauses 13.194 to 13.196:
- (b) the **generator, battery energy storage system owner** or **dispatched purchaser** (as the case may be) that was **constrained off**:
- (c) the applicable **grid injection point, or grid exit point, or block dispatch group, or station dispatch group**.

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

Calculation of constrained off amounts

...

13.194 Clearing manager to calculate constrained off amounts

...

(2) If a **constrained off situation** occurs in relation to a **dispatch-capable load station or battery energy storage system station** during a **trading period**, the **clearing manager** must calculate the **constrained off amounts** for each **dispatch-capable load station or battery energy storage system station**, for each affected **nominated dispatch bid price band**, using the following formula:

$$\text{ConOffAmtdisp} = \text{ConOffQ} * (\text{Pb} - \text{Pf})$$

where

ConOffAmtdisp is the **constrained off amount** for a **dispatch-capable load station or battery energy storage system station** for the **nominated dispatch bid price band**

...

13.199 Clearing manager to make details of constrained off amounts available

The **clearing manager** must, at the time specified in clause 13.197, **publish** the details of **constrained off amounts** for each **generator** and each **dispatched purchaser** for the previous **billing period** as follows:

- (a) the **constrained off amounts** calculated in accordance with clauses 13.194 to 13.196:
- (b) the **generator, battery energy storage system owner** or **dispatched purchaser** (as the case may be) that was **constrained off**:
- (c) the applicable **grid injection point, or grid exit point, or block dispatch group, or station dispatch group**.

Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)	Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)
<p>...</p> <p>13.201A Dispatched purchasers entitled to constrained off compensation and purchasers to pay constrained off compensation</p> <p>(1) A dispatched purchaser <u>or battery energy storage system owner</u> in respect of whose <u>dispatch-capable load station or battery energy storage system station</u> there was a constrained off situation as described in clause 13.192(1)(c) is owed constrained off compensation for the constrained off amounts calculated under clause 13.194(2).</p> <p>(2) A purchaser that purchases electricity at a grid exit point incurs an amount owing to the clearing manager for constrained off compensation, calculated under subclause (6).</p> <p>(2A) The clearing manager must advise each purchaser of the amount owing by the purchaser for constrained off compensation for a billing period when the clearing manager advises amounts owing under subpart 4 of Part 14.</p> <p>(3) The clearing manager owes constrained off compensation received under subclause (2), for each <u>dispatch-capable load station or battery energy storage system station</u>, to the <u>dispatched purchaser or battery energy storage system owner</u> that purchased electricity for the <u>dispatch-capable load station or battery energy storage system station</u>.</p> <p>(4) The clearing manager must advise each <u>dispatched purchaser or battery energy storage system owner</u> of the amount owing to the <u>dispatched purchaser or battery energy storage system owner</u> for constrained off compensation for a billing period when the clearing manager advises amounts owing under subpart 4 of Part 14.</p> <p>(5) <i>[Revoked]</i></p>	<p>...</p> <p>13.201A Dispatched purchasers entitled to constrained off compensation and purchasers to pay constrained off compensation</p> <p>(1) A dispatched purchaser <u>or battery energy storage system owner</u> in respect of whose <u>dispatch-capable load station or battery energy storage system station</u> there was a constrained off situation as described in clause 13.192(1)(c) is owed constrained off compensation for the constrained off amounts calculated under clause 13.194(2).</p> <p>(2) A purchaser that purchases electricity at a grid exit point incurs an amount owing to the clearing manager for constrained off compensation, calculated under subclause (6).</p> <p>(2A) The clearing manager must advise each purchaser of the amount owing by the purchaser for constrained off compensation for a billing period when the clearing manager advises amounts owing under subpart 4 of Part 14.</p> <p>(3) The clearing manager owes constrained off compensation received under subclause (2), for each <u>dispatch-capable load station or battery energy storage system station</u>, to the <u>dispatched purchaser or battery energy storage system owner</u> that purchased electricity for the <u>dispatch-capable load station or battery energy storage system station</u>.</p> <p>(4) The clearing manager must advise each <u>dispatched purchaser or battery energy storage system owner</u> of the amount owing to the <u>dispatched purchaser or battery energy storage system owner</u> for constrained off compensation for a billing period when the clearing manager advises amounts owing under subpart 4 of Part 14.</p> <p>(5) <i>[Revoked]</i></p>

Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)	Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)
<p>(6) The clearing manager must calculate constrained off compensation owing by a purchaser under subclause (2) for each trading period using the following formula: $\text{ConOffC}_p = \text{ConOffC}_{\text{DLPS}} * (\text{Pur}_i / \text{TotPur})$ where ConOffC_p is the constrained off compensation owing by a purchaser $\text{ConOffC}_{\text{DLPS}}$ is the sum of constrained off compensation owing to all dispatched purchasers <u>and battery energy storage system owners whose bids were dispatched</u> for the trading period Pur_i is the total quantity in MWh of all purchases by the purchaser from the clearing manager during the trading period, as shown by reconciliation information calculated by the reconciliation manager under Part 15 TotPur is the quantity in MWh of all purchases by all purchasers from the clearing manager during the trading period, as shown by reconciliation information calculated by the reconciliation manager under Part 15.</p>	<p>(6) The clearing manager must calculate constrained off compensation owing by a purchaser under subclause (2) for each trading period using the following formula: $\text{ConOffC}_p = \text{ConOffC}_{\text{DLPS}} * (\text{Pur}_i / \text{TotPur})$ where ConOffC_p is the constrained off compensation owing by a purchaser $\text{ConOffC}_{\text{DLPS}}$ is the sum of constrained off compensation owing to all dispatched purchasers <u>and battery energy storage system owners whose bids were dispatched</u> for the trading period Pur_i is the total quantity in MWh of all purchases by the purchaser from the clearing manager during the trading period, as shown by reconciliation information calculated by the reconciliation manager under Part 15 TotPur is the quantity in MWh of all purchases by all purchasers from the clearing manager during the trading period, as shown by reconciliation information calculated by the reconciliation manager under Part 15.</p>
<p>...</p> <p>13.204 Calculation of constrained on amounts</p> <p>(1) If a constrained on situation occurs during any trading period during a previous billing period,—</p> <p>(a) the clearing manager must calculate the constrained on amounts for a constrained on situation described in clause 13.202(1)(a) or (b) for each generator for each affected price band in accordance with the following formula:</p>	<p>...</p> <p>13.204 Calculation of constrained on amounts</p> <p>(1) If a constrained on situation occurs during any trading period during a previous billing period,—</p> <p>(a) the clearing manager must calculate the constrained on amounts for a constrained on situation described in clause 13.202(1)(a) or (b) for each generator for each affected price band in accordance with the following formula:</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>$COC = Q_{con} * (P_o - P_f)$</p> <p>where</p> <p>COC is the constrained on amount for a generator</p> <p>Q_{con} is the dispatched quantity in MWh (calculated under paragraph (b)) from that price band in the offer that was constrained on during a trading period, or the positive difference between the reconciliation information and the scheduled quantity, whichever is less</p> <p>P_o is the price offered for that price band by the generator for the quantity of electricity from the generating plant which was constrained on</p> <p>P_f is the final price for that trading period at the grid injection point; and</p> <p>(aa) the clearing manager must calculate the constrained on amounts for a constrained on situation described in clause 13.202(1)(d) for each dispatch-capable load station for each affected nominated dispatch bid price band, using the following formula:</p> $ConOnAmt = ConOnQ * (P_f - P_b)$ <p>where</p> <p>ConOnAmt is the constrained on amount for a dispatch-capable load station <u>or battery energy storage system station</u> for the nominated dispatch bid price band</p>	<p>$COC = Q_{con} * (P_o - P_f)$</p> <p>where</p> <p>COC is the constrained on amount for a generator</p> <p>Q_{con} is the dispatched quantity in MWh (calculated under paragraph (b)) from that price band in the offer that was constrained on during a trading period, or the positive difference between the reconciliation information and the scheduled quantity, whichever is less</p> <p>P_o is the price offered for that price band by the generator for the quantity of electricity from the generating plant which was constrained on</p> <p>P_f is the final price for that trading period at the grid injection point; and</p> <p>(aa) the clearing manager must calculate the constrained on amounts for a constrained on situation described in clause 13.202(1)(d) for each dispatch-capable load station for each affected nominated dispatch bid price band, using the following formula:</p> $ConOnAmt = ConOnQ * (P_f - P_b)$ <p>where</p> <p>ConOnAmt is the constrained on amount for a dispatch-capable load station <u>or battery energy storage system station</u> for the nominated dispatch bid price band</p>

Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)	Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)
<p>ConOnQ is the amount in MWh by which the lowest of Q_{disp} and Q_{rec} exceeds Q_b</p> <p>where</p> <p>Q_b is the quantity, in MWh, in the nominated dispatch bid price band where the bid price is below the final price.</p> <p>Q_{disp} is the dispatched quantity in MWh in the trading period, calculated under paragraph (b), for the nominated dispatch bid price band in the trading period</p> <p>Q_{rec} is the reconciled quantity provided by the reconciliation manager under clause 15.20C allocated by the clearing manager to the nominated dispatch bid price band in the trading period</p> <p>P_f is the final price for the trading period at the grid exit point</p> <p>P_b is the price bid for the nominated dispatch bid price band for the dispatch-capable load station <u>or battery energy storage system station</u> that was constrained on; and</p> <p>(b) for the purposes of clauses 13.202 to 13.211 dispatched quantity must be calculated taking into account—</p> <p>(i) the quantity in MW recorded in the log kept by the system operator in accordance with clause 13.76; and if required, the clearing manager must aggregate such quantities for—</p> <p>(A) generating stations or generating units in the relevant station dispatch group; or</p>	<p>ConOnQ is the amount in MWh by which the lowest of Q_{disp} and Q_{rec} exceeds Q_b</p> <p>where</p> <p>Q_b is the quantity, in MWh, in the nominated dispatch bid price band where the bid price is below the final price.</p> <p>Q_{disp} is the dispatched quantity in MWh in the trading period, calculated under paragraph (b), for the nominated dispatch bid price band in the trading period</p> <p>Q_{rec} is the reconciled quantity provided by the reconciliation manager under clause 15.20C allocated by the clearing manager to the nominated dispatch bid price band in the trading period</p> <p>P_f is the final price for the trading period at the grid exit point</p> <p>P_b is the price bid for the nominated dispatch bid price band for the dispatch-capable load station <u>or battery energy storage system station</u> that was constrained on; and</p> <p>(b) for the purposes of clauses 13.202 to 13.211 dispatched quantity must be calculated taking into account—</p> <p>(i) the quantity in MW recorded in the log kept by the system operator in accordance with clause 13.76; and if required, the clearing manager must aggregate such quantities for—</p> <p>(A) generating stations or generating units in the relevant station dispatch group; or</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>(B) generating units, if the clearing manager requires a dispatched quantity to be determined on a grid injection point basis; and</p> <p>(ii) for an offer, the ramp rate applying to that constrained on situation that is specified in the offer submitted by the generator, or—</p> <p>(A) for a block dispatch group or a station dispatch group; or</p> <p>(B) for generating units, if the clearing manager requires the dispatched quantity to be determined on a grid injection point basis—</p> <p>the fastest of the ramp rates applying to that constrained on situation that are specified in the offers submitted by the generator in that block dispatch group, that station dispatch group or those generating units electrically connected to the relevant grid injection point (as the case may be); and</p> <p>(iii) plus or minus the MW bandwidth applicable for each generator affected by a frequency keeping requirement as advised by the system operator to the clearing manager under clause 13.76 and, if required, the clearing manager must aggregate the MW bandwidth applicable to determine the MW bandwidth on a grid injection point basis; and</p> <p>(c) the clearing manager must calculate the constrained on amounts for a constrained on situation described in clause 13.202(1)(c) for each ancillary service agent for each affected price band in accordance with the following formula:</p> <p style="margin-left: 40px;">$COC = Q_{con} * (P_o - P_f)$</p>	<p>(B) generating units, if the clearing manager requires a dispatched quantity to be determined on a grid injection point basis; and</p> <p>(ii) for an offer, the ramp rate applying to that constrained on situation that is specified in the offer submitted by the generator, or—</p> <p>(A) for a block dispatch group or a station dispatch group; or</p> <p>(B) for generating units, if the clearing manager requires the dispatched quantity to be determined on a grid injection point basis—</p> <p>the fastest of the ramp rates applying to that constrained on situation that are specified in the offers submitted by the generator in that block dispatch group, that station dispatch group or those generating units electrically connected to the relevant grid injection point (as the case may be); and</p> <p>(iii) plus or minus the MW bandwidth applicable for each generator affected by a frequency keeping requirement as advised by the system operator to the clearing manager under clause 13.76 and, if required, the clearing manager must aggregate the MW bandwidth applicable to determine the MW bandwidth on a grid injection point basis; and</p> <p>(c) the clearing manager must calculate the constrained on amounts for a constrained on situation described in clause 13.202(1)(c) for each ancillary service agent for each affected price band in accordance with the following formula:</p> <p style="margin-left: 40px;">$COC = Q_{con} * (P_o - P_f)$</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>where</p> <p>COC is the constrained on amount for an ancillary service agent</p> <p>Q_{con} is the dispatched quantity of instantaneous reserve in MW (calculated under paragraph (d)) from that price band in the reserve offer that was constrained on during a trading period</p> <p>P_o is the price offered for that price band by that ancillary service agent for the quantity Q_{con}</p> <p>P_f is the final reserve price for that trading period at the point of connection on the grid; and</p> <p>(d) for the purposes of paragraph (c), in determining the dispatched quantity, the clearing manager must take into account the quantity in MW of instantaneous reserve dispatched for the ancillary service agent recorded in the log kept by the system operator in accordance with clause 13.76; and</p> <p>(e) the constrained on amounts for a block dispatch group or station dispatch group equal the sum of the amounts calculated in accordance with paragraphs (a) and (b) for the generating plant in that block dispatch group or station dispatch group (as the case may be); and</p> <p>(f) in relation to any 2 adjacent trading periods, a generator is entitled to be paid for the 2nd trading period at the final price for the grid injection point if the generator—</p>	<p>where</p> <p>COC is the constrained on amount for an ancillary service agent</p> <p>Q_{con} is the dispatched quantity of instantaneous reserve in MW (calculated under paragraph (d)) from that price band in the reserve offer that was constrained on during a trading period</p> <p>P_o is the price offered for that price band by that ancillary service agent for the quantity Q_{con}</p> <p>P_f is the final reserve price for that trading period at the point of connection on the grid; and</p> <p>(d) for the purposes of paragraph (c), in determining the dispatched quantity, the clearing manager must take into account the quantity in MW of instantaneous reserve dispatched for the ancillary service agent recorded in the log kept by the system operator in accordance with clause 13.76; and</p> <p>(e) the constrained on amounts for a block dispatch group or station dispatch group equal the sum of the amounts calculated in accordance with paragraphs (a) and (b) for the generating plant in that block dispatch group or station dispatch group (as the case may be); and</p> <p>(f) in relation to any 2 adjacent trading periods, a generator is entitled to be paid for the 2nd trading period at the final price for the grid injection point if the generator—</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<ul style="list-style-type: none"> (i) was in a constrained on situation in the 1st trading period; and (ii) continues to generate in the 2nd trading period as a result of a dispatch instruction given for the 1st trading period; but (iii) has not made an offer in the 2nd trading period. <p>(2) To avoid doubt, nothing in this clause entitles the system operator to issue any instruction to a generator in relation to unoffered generation.</p> <p>(3) In this clause,—</p> <ul style="list-style-type: none"> (a) an offer made by a generator means the last offer made by the generator which applied during the relevant trading period; and (b) a bid made by a purchaser means the last bid made by the purchaser which applied during the relevant trading period. 	<ul style="list-style-type: none"> (i) was in a constrained on situation in the 1st trading period; and (ii) continues to generate in the 2nd trading period as a result of a dispatch instruction given for the 1st trading period; but (iii) has not made an offer in the 2nd trading period. <p>(2) To avoid doubt, nothing in this clause entitles the system operator to issue any instruction to a generator in relation to unoffered generation.</p> <p>(3) In this clause,—</p> <ul style="list-style-type: none"> (a) an offer made by a generator means the last offer made by the generator which applied during the relevant trading period; and (b) a bid made by a purchaser means the last bid made by the purchaser which applied during the relevant trading period.
<p>...</p> <p>13.212 Payment of constrained on compensation</p> <p>(1) For each trading period,—</p> <ul style="list-style-type: none"> (a) a generator or ancillary service agent is owed constrained on compensation for constrained on amounts determined under clauses 13.204 and 13.205; and (b) a dispatched purchaser <u>or battery energy storage system owner</u> is owed constrained on compensation for constrained on amounts determined under clause 13.204. <p>(1A) Constrained on compensation for each dispatch-capable load station <u>or battery energy storage system station</u> is an amount owing to the dispatched purchaser <u>or battery energy storage system owner</u> that purchased electricity for the dispatch-capable load station <u>or battery energy storage system station</u>.</p>	<p>...</p> <p>13.212 Payment of constrained on compensation</p> <p>(1) For each trading period,—</p> <ul style="list-style-type: none"> (a) a generator or ancillary service agent is owed constrained on compensation for constrained on amounts determined under clauses 13.204 and 13.205; and (b) a dispatched purchaser <u>or battery energy storage system owner</u> is owed constrained on compensation for constrained on amounts determined under clause 13.204. <p>(1A) Constrained on compensation for each dispatch-capable load station <u>or battery energy storage system station</u> is an amount owing to the dispatched purchaser <u>or battery energy storage system owner</u> that purchased electricity for the dispatch-capable load station <u>or battery energy storage system station</u>.</p>

Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)	Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)
<p>(2) The system operator must pay to a generator, or ancillary service agent any constrained on amount calculated under clause 13.205.</p> <p>(3) The clearing manager must advise each generator, ancillary service agent, and dispatched purchaser <u>or battery energy storage system station owner</u> of the amount owing to the generator, ancillary service agent, or dispatched purchaser <u>or battery energy storage system station owner</u> for constrained on compensation for a billing period when the clearing manager advises amounts owing under subpart 4 of Part 14.</p> <p>(4) <i>[Revoked]</i></p> <p>(5) Each purchaser that purchases electricity at a grid exit point incurs an amount owing to the clearing manager for constrained on compensation, calculated under subclause (7).</p> <p>(5A) <i>[Revoked]</i></p> <p>(6) Instantaneous reserve constrained on compensation is an instantaneous reserve cost that must be allocated in accordance with clauses 8.59 to 8.66.</p> <p>(7) The clearing manager must calculate constrained on compensation for each trading period using the following formula:</p> $COC_p = (COC_g - COC_{so}) * (P_q / TP_q)$ <p>where</p> <p>COC_p is the constrained on compensation owing by a purchaser</p> <p>COC_g is the sum of constrained on compensation owing to all generators and all dispatched purchasers for the trading period calculated in accordance with clause 13.204(1)(a) and 13.204(1)(aa)</p>	<p>(2) The system operator must pay to a generator, or ancillary service agent any constrained on amount calculated under clause 13.205.</p> <p>(3) The clearing manager must advise each generator, ancillary service agent, and dispatched purchaser <u>or battery energy storage system station owner</u> of the amount owing to the generator, ancillary service agent, or dispatched purchaser <u>or battery energy storage system station owner</u> for constrained on compensation for a billing period when the clearing manager advises amounts owing under subpart 4 of Part 14.</p> <p>(4) <i>[Revoked]</i></p> <p>(5) Each purchaser that purchases electricity at a grid exit point incurs an amount owing to the clearing manager for constrained on compensation, calculated under subclause (7).</p> <p>(5A) <i>[Revoked]</i></p> <p>(6) Instantaneous reserve constrained on compensation is an instantaneous reserve cost that must be allocated in accordance with clauses 8.59 to 8.66.</p> <p>(7) The clearing manager must calculate constrained on compensation for each trading period using the following formula:</p> $COC_p = (COC_g - COC_{so}) * (P_q / TP_q)$ <p>where</p> <p>COC_p is the constrained on compensation owing by a purchaser</p> <p>COC_g is the sum of constrained on compensation owing to all generators and all dispatched purchasers for the trading period calculated in accordance with clause 13.204(1)(a) and 13.204(1)(aa)</p>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>COC_{so} is the sum of constrained on compensation for that trading period payable by the system operator to generators under subclause (2)</p>	<p>COC_{so} is the sum of constrained on compensation for that trading period payable by the system operator to generators under subclause (2)</p>
<p>P_q is the total electricity purchased by that purchaser from the clearing manager during the trading period as shown by the reconciliation information calculated by the reconciliation manager under Part 15</p>	<p>P_q is the total electricity purchased by that purchaser from the clearing manager during the trading period as shown by the reconciliation information calculated by the reconciliation manager under Part 15</p>
<p>TP_q is the total electricity purchased by all purchasers from the clearing manager during the trading period as shown by reconciliation information calculated by the reconciliation manager under Part 15.</p>	<p>TP_q is the total electricity purchased by all purchasers from the clearing manager during the trading period as shown by reconciliation information calculated by the reconciliation manager under Part 15.</p>
<p>(8) The clearing manager must advise each purchaser of the amount owing by the purchaser for constrained on compensation for a billing period when the clearing manager advises amounts owing under subpart 4 of Part 14.</p>	<p>(8) The clearing manager must advise each purchaser of the amount owing by the purchaser for constrained on compensation for a billing period when the clearing manager advises amounts owing under subpart 4 of Part 14.</p>
<p>...</p>	<p>...</p>
<p style="text-align: center;">Schedule 13.1 Forms 1 to 9</p>	<p style="text-align: center;">Schedule 13.1 Forms 1 to 9</p>
<p>...</p>	<p>...</p>
<p style="text-align: center;">no change</p>	<p style="text-align: center;">Form 10 – Battery energy storage system owner offer</p>
<p style="text-align: center;">no change</p>	<p style="text-align: center;">Form 11 – Battery energy storage system owner instantaneous reserve offer</p>
<p>...</p>	<p>...</p>

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

no change

Form 10: Battery energy storage system owner offer and bid

Date: _____

Battery Energy Storage System Owner Participant Identifier: _____

Battery Energy Storage System Owner Name: _____

Grid Injection Point : _____

Battery Energy Storage System Maximum Output _____ MW

Trading Period: _____ Starting at _____ : _____ 0 hours

Battery Energy Storage System Station Minimum Storage Limit: _____ MWh

Battery Energy Storage System Station Maximum Storage Limit: _____ MWh

Battery Energy Storage System Station Fixed BESS Loss Factor : _____ MWh

Battery Energy Storage System Station Variable BESS Loss Factor:
_____ MWh/MWh

Battery energy storage system offer to sell electricity:

Band 1: From 0 MW to _____ MW @ \$ _____ per MWh

Band 2: plus _____ MW @ \$ _____ per MWh

Band 3: plus _____ MW @ \$ _____ per MWh

Band 4: plus _____ MW @ \$ _____ per MWh

Band 5: plus _____ MW @ \$ _____ per MWh

Band 6: plus _____ MW @ \$ _____ per MWh

Band 7: plus _____ MW @ \$ _____ per MWh

Band 8: plus _____ MW @ \$ _____ per MWh

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

Band 9: plus _____ MW @ \$ _____ per MWh
Band 10: plus _____ MW @ \$ _____ per MWh

Battery energy storage system bid to purchase electricity

Band 1: From 0 MW to _____ MW @ \$ _____ per MWh
Band 2: plus _____ MW @ \$ _____ per MWh
Band 3: plus _____ MW @ \$ _____ per MWh
Band 4: plus _____ MW @ \$ _____ per MWh
Band 5: plus _____ MW @ \$ _____ per MWh
Band 6: plus _____ MW @ \$ _____ per MWh
Band 7: plus _____ MW @ \$ _____ per MWh
Band 8: plus _____ MW @ \$ _____ per MWh
Band 9: plus _____ MW @ \$ _____ per MWh
Band 10: plus _____ MW @ \$ _____ per MWh

no change

Form 11: Battery energy storage system owner instantaneous reserve offer

Date: _____
Ancillary Service Agent: _____
Battery Energy Storage System Station Name: _____
Grid Injection Point: _____
Trading Period: _____ Starting at _____ 0 hours

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

Instantaneous reserve capability

Holds a Reserve Contract with the System Operator " Yes

Fast Instantaneous Reserve Interruptible Load Available " Yes

Sustained Instantaneous Reserve Interruptible Load Available " Yes

Trading Period: _____ Starting at _____ : _____ 0 hours

Offer to provide reserve

1 Generation reserve

Band 1:

Up to a maximum of _____ MW @ \$ _____ per MW as Fast Instantaneous Reserve

Up to a maximum of _____ MW @ \$ _____ per MW as Sustained Instantaneous Reserve

Band 2:

Up to a maximum of _____ MW @ \$ _____ per MW as Fast Instantaneous Reserve

Up to a maximum of _____ MW @ \$ _____ per MW as Sustained Instantaneous Reserve

Band 3:

Up to a maximum of _____ MW @ \$ _____ per MW as Fast Instantaneous Reserve

Up to a maximum of _____ MW @ \$ _____ per MW as Sustained Instantaneous Reserve

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

2 Interruptible load

Band 1:

Up to a maximum of ____ MW @ \$ _____ per MW as Fast Instantaneous Reserve

Up to a maximum of ____ MW @ \$ ___per MW as Sustained Instantaneous Reserve

Band 2:

Up to a maximum of ____ MW @ \$ _____ per MW as Fast Instantaneous Reserve

Up to a maximum of ____ MW @ \$ ___per MW as Sustained Instantaneous Reserve

Band 3:

Up to a maximum of ____ MW @ \$ _____ per MW as Fast Instantaneous Reserve

Up to a maximum of ____ MW @ \$ ___per MW as Sustained Instantaneous Reserve

...

no change

Schedule 13.3 The Modelling System

1 Purpose of modelling system

(1) The purpose of the modelling system is to provide schedules of quantities and prices that maximise the gross **purchaser** benefit from purchases of **electricity** from the **clearing manager** less the total cost of production of **electricity** and **instantaneous reserves** as specified in this Schedule.

(2) *[Revoked]*

(2A) A **price-responsive schedule** and **non-response schedule** must use the scheduled generation at the end of the previous **trading period** as the expected output for the purpose of clause 9A(b).

(2B) A price-responsive schedule and non-response schedule must use the predicted state of charge of each battery energy storage system

<p>Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p>Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>no change</p>	<p>station at the end of the previous trading period as the expected state of charge for the purpose of clause 9A(d).</p> <p>(3) The modelling system must provide prices for electricity and instantaneous reserve that are consistent with the above purpose and the scheduled quantities of electricity and instantaneous reserve.</p> <p>(4) The modelling system must be used, using different inputs, to produce—</p> <ul style="list-style-type: none"> (a) price-responsive schedules; and (b) non-response schedules; and (c) dispatch schedules (d) [Revoked] (e) [Revoked] (f) [Revoked] (g) [Revoked] <p>...</p> <p>9A Constraints relating to generation</p> <p>The constraints for the purpose of clause 9(b) are that—</p> <ul style="list-style-type: none"> (a) for each price band, the modelling system does not schedule electricity generation that would result in the scheduled quantity of electricity to be generated by a generator being greater than the quantity offered by the generator for the price band; and (b) the modelling system schedules electricity generation for each generating unit or generating station, including a battery energy storage system station, in a trading period within the offered maximum ramp up and ramp down rates of the generating unit or generating station, given the expected (or actual) output at the start of the trading period; and (c) the modelling system schedules electricity generation for each intermittent generating station in a trading period at a level that is

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>no change</p>	<p>no higher than the potential output of the intermittent generating station, determined as follows:</p> <ul style="list-style-type: none"> (i) in relation to the price-responsive schedule, in accordance with clause 13.58A(1)(aa): (ii) in relation to the non-response schedule, in accordance with clause 13.58A(2)(aa): (iii) in relation to the dispatch schedule, in accordance with clause 13.71(3): (iv) in relation to the input information referred to in clause 13.141, in accordance with clause 13.141(1)(caa); <u>and</u> (v) <i>[Revoked]</i> <p><u>(d) the modelling system schedules electricity generation for each battery energy storage system station in a trading period such that:</u></p> <ul style="list-style-type: none"> <u>(i) the level of generation can be maintained for the trading period, or the level of sustained instantaneous reserves can be maintained for 15 minutes, whichever is applicable:</u> <u>(ii) the scheduled quantity of electricity to be generated by the battery energy storage system station does not exceed the difference between the state of charge at the beginning of the trading period, calculated in accordance with clause 10A, and the minimum storage limit specified in the offer submitted by the battery energy storage system owner for that trading period, adjusted for any BESS loss factors specified in the offer.</u> <p><u>9B State of charge for battery energy storage systems</u></p> <p><u>(1) For the purposes of clauses 9A and 10, the starting state of charge for a battery energy storage system station for each trading period is to be determined:</u></p> <ul style="list-style-type: none"> <u>(a) for the purposes of the dispatch schedule, using the current</u>

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
	<p>be provided by each ancillary service agent in each island to meet the requirements of the dispatch objective in each island.</p> <p>(2) In making the calculation in subclause (1), the modelling system must identify the risk (in MW) associated with the largest “Contingent Event” as the largest of—</p> <ul style="list-style-type: none"> (a) the transfer on a single pole of the HVDC link; or (b) the generation from a single generating unit (whether or not this is a generator’s generating unit); or (c) any other risk specified in the dispatch objective. <p>(3) The modelling system must calculate the total amount of fast instantaneous reserve and sustained instantaneous reserve required to meet the requirements of the dispatch objective. The amount of fast instantaneous reserve and sustained instantaneous reserve to be provided by each ancillary service agent is this amount less any instantaneous reserve being provided by any other person who is not an ancillary service agent (as advised by the system operator).</p> <p>(4) The modelling system must not schedule instantaneous reserve at a generating unit or generating station that would result in the scheduled quantity of electricity to be generated plus the scheduled quantity of instantaneous reserve to be provided that is greater than the maximum generator effective reserve capacity of that generating unit or generating station as specified in the reserve offer for that generating unit or generating station.</p> <p><u>(4A) The modelling system must not schedule instantaneous reserve at a battery energy storage system station that would result in the scheduled quantity of electricity to be generated plus the scheduled quantity of sustained instantaneous reserve to be provided exceeding the maximum effective reserve capacity of that battery</u></p>

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

no change

[energy storage system station as specified in the reserve offer for that battery energy storage system station.](#)

(5) The modelling system must use the price and quantity values set out in the table in clause 13.58AA(3) for the following model parameters:

- (a) **fast instantaneous reserve** contingent event risk violation:
- (b) **sustained instantaneous reserve** contingent event risk violation.

...

Schedule 13.3B
Information for schedules prepared by system operator

1 Purpose of this schedule

- (1) This Schedule sets out the information required to be contained in, and/or published by, the **dispatch schedule**, **price-responsive schedule** and **non-response schedule**.
- (2) Contents of schedules, columns 1, 2, and 3, are those values derived by the modelling system using the input information listed in clause 13.69B for the **dispatch schedule** and clause 13.58A for the **price-responsive schedule** and **non-response schedule**.
- (3) Published information, columns 4, 5, and 6, are those values that are required to be transmitted by the **system operator** to the **WITS manager** for public consumption at the time the schedules are published.

		1	2	3	4	5	6
Information required		Contents of schedules			To be published		
Row	Schedule	PRS	NRS	Dispatch	PRS	NRS	Dispatch
	...						
	Offers and bids quantities (in MW) for each battery energy storage system station limited by state of charge constraints						
48	station limited by state of charge constraints	X	X	X	X	X	X

...

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p style="text-align: center;">Part 15 Reconciliation</p> <p>15.1 Contents of this Part This Part provides for the following:</p> <ul style="list-style-type: none"> (a) the improvement of information about electricity conveyed as more volume information becomes available over time: (b) the correction of information to remedy errors in information provided: (c) how reconciliation participants must gather, store and provide information about electricity conveyed: (d) how reconciliation participants must prepare and provide submission information: (da) how dispatchable load purchasers <u>and battery energy storage system owners</u> must collect volume information in accordance with Schedule 15.2: (e) how the reconciliation manager must calculate responsibility for electricity among reconciliation participants: (f) how the reconciliation manager must pass information to the clearing manager, for the calculation of amounts owing under Part 14: (g) obligations of the reconciliation manager to pass the information to reconciliation participants, the registry manager and the Authority: (h) requirements for the creation, approval and maintenance of profiles: (i) requirements for audits, approvals and certifications. ... <p>15.5A Dispatchable load purchaser <u>and battery energy storage system owner</u> must prepare dispatchable load information</p> <ul style="list-style-type: none"> (1) Each dispatchable load purchaser <u>and battery energy storage system owner</u> must prepare dispatchable load information using 	<p style="text-align: center;">Part 15 Reconciliation</p> <p>15.1 Contents of this Part This Part provides for the following:</p> <ul style="list-style-type: none"> (a) the improvement of information about electricity conveyed as more volume information becomes available over time: (b) the correction of information to remedy errors in information provided: (c) how reconciliation participants must gather, store and provide information about electricity conveyed: (d) how reconciliation participants must prepare and provide submission information: (da) how dispatchable load purchasers <u>and battery energy storage system owners</u> must collect volume information in accordance with Schedule 15.2: (e) how the reconciliation manager must calculate responsibility for electricity among reconciliation participants: (f) how the reconciliation manager must pass information to the clearing manager, for the calculation of amounts owing under Part 14: (g) obligations of the reconciliation manager to pass the information to reconciliation participants, the registry manager and the Authority: (h) requirements for the creation, approval and maintenance of profiles: (i) requirements for audits, approvals and certifications. <p>15.5A Dispatchable load purchaser <u>and battery energy storage system owner</u> must prepare dispatchable load information</p> <ul style="list-style-type: none"> (1) Each dispatchable load purchaser <u>and battery energy storage system owner</u> must prepare dispatchable load information using

Proposed INTERIM Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

volume information prepared in accordance with Schedule 15.2.
(2) If clause 15.5B applies to a **dispatch-capable load station's metering installation**, the **dispatchable load purchaser** responsible for the **dispatch-capable load station** must comply with clause 15.5B in relation to the **dispatch-capable load station**.

...
15.5C Aggregating and rounding dispatchable load information

- (1) When preparing **dispatchable load information**, a **each dispatchable load purchaser or battery energy storage system owner** must—
- (a) aggregate **volume information** to the following level:
 - (i) NSP code;
 - (ii) **battery energy storage system station** identifier;
 - (iii) **loss category** code;
 - (iv) **trading period**; and
 - (b) round the aggregated **volume information**—
 - (i) to 2 decimal places; and
 - (ii) so that if the digit to the right of the second decimal place is—
 - (A) greater than or equal to 5, the second digit is rounded up; or
 - (B) less than 5, the second digit is unchanged.
- (2) When aggregating **volume information** for a **dispatch-capable load station or a battery energy storage system station** to the NSP, the **dispatchable load purchaser or battery energy storage system owner** must use the NSP code as shown in the **registry** at the time the **volume information** is derived.

15.5D Dispatchable load information to be delivered to reconciliation manager

(1) Each **dispatchable load purchaser or battery energy storage**

Proposed FINAL Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

volume information prepared in accordance with Schedule 15.2.
(2) If clause 15.5B applies to a **dispatch-capable load station's metering installation**, the **dispatchable load purchaser** responsible for the **dispatch-capable load station** must comply with clause 15.5B in relation to the **dispatch-capable load station**.

...
15.5C Aggregating and rounding dispatchable load information

- (1) When preparing **dispatchable load information**, a **each dispatchable load purchaser or battery energy storage system owner** must—
- (a) aggregate **volume information** to the following level:
 - (i) NSP code;
 - (ii) **battery energy storage system station** identifier;
 - (iii) **loss category** code;
 - (iv) **trading period**; and
 - (b) round the aggregated **volume information**—
 - (i) to 2 decimal places; and
 - (ii) so that if the digit to the right of the second decimal place is—
 - (A) greater than or equal to 5, the second digit is rounded up; or
 - (B) less than 5, the second digit is unchanged.
- (2) When aggregating **volume information** for a **dispatch-capable load station or a battery energy storage system station** to the NSP, the **dispatchable load purchaser or battery energy storage system owner** must use the NSP code as shown in the **registry** at the time the **volume information** is derived.

15.5D Dispatchable load information to be delivered to reconciliation manager

(1) Each **dispatchable load purchaser or battery energy storage**

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

- system owner** must provide to the **reconciliation manager**—
- (a) **dispatchable load information** for each **GXP** at which the **dispatchable load purchaser** or **battery energy storage system owner** has purchased electricity for a **dispatch-capable load station** or **battery energy storage system station** during the **consumption period** immediately before each **reconciliation period**; and
 - (b) if the **dispatchable load purchaser** or **battery energy storage system owner** knows that **dispatchable load information** previously provided has changed, revised **dispatchable load information** for the **consumption period** for which the **dispatchable load information** was initially provided.
- (2) Each **dispatchable load purchaser** or **battery energy storage system owner** must provide—
- (a) the information described in subclause (1)(a) by 1600 hours on the 4th **business day** of each **reconciliation period**; and
 - (b) the information described in subclause (1)(b) by 1600 hours on the 13th **business day** of each **reconciliation period**.

...

15.20B Reconciliation manager loss adjusts and summarises dispatchable load information

- (1) The **reconciliation manager** must apply **loss factors** to **dispatchable load information** received under clause 15.5D—
 - (a) for each **trading period**; and
 - (b) using the **loss category** codes advised by the **dispatchable load purchaser** or **battery energy storage system owner** when submitting **dispatchable load information** under clause 15.5D.
- (2) After applying **loss factors** under subclause (1), the **reconciliation manager** must summarise—

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

- system owner** must provide to the **reconciliation manager**—
- (a) **dispatchable load information** for each **GXP** at which the **dispatchable load purchaser** or **battery energy storage system owner** has purchased electricity for a **dispatch-capable load station** or **battery energy storage system station** during the **consumption period** immediately before each **reconciliation period**; and
 - (b) if the **dispatchable load purchaser** or **battery energy storage system owner** knows that **dispatchable load information** previously provided has changed, revised **dispatchable load information** for the **consumption period** for which the **dispatchable load information** was initially provided.
- (2) Each **dispatchable load purchaser** or **battery energy storage system owner** must provide—
- (a) the information described in subclause (1)(a) by 1600 hours on the 4th **business day** of each **reconciliation period**; and
 - (b) the information described in subclause (1)(b) by 1600 hours on the 13th **business day** of each **reconciliation period**.

...

15.20B Reconciliation manager loss adjusts and summarises dispatchable load information

- (1) The **reconciliation manager** must apply **loss factors** to **dispatchable load information** received under clause 15.5D—
 - (a) for each **trading period**; and
 - (b) using the **loss category** codes advised by the **dispatchable load purchaser** or **battery energy storage system owner** when submitting **dispatchable load information** under clause 15.5D.
- (2) After applying **loss factors** under subclause (1), the **reconciliation manager** must summarise—

Proposed **INTERIM** Code amendment
(proposed to be in place for 17 months from approx. Sept 2026)

- (a) into 1 file for each **consumption period, dispatchable load information** received under clause 15.5D(1)(a); and
 - (b) into 1 file for each **consumption period, dispatchable load information** received under clause 15.5D(1)(b) and updated under clause 15.20A.
- (3) The **Authority** may direct the **reconciliation manager** to apply specified values for **loss factors** for each **loss category** for a **reconciliation period** for which the **registry manager** does not provide the **reconciliation manager** with the **loss factors** for each **loss category** in accordance with clause 11.26(b).
- (4) If the **Authority** makes a direction under subclause (3), the **reconciliation manager** must apply the values as **loss factors** to the relevant **dispatchable load information** for all **reconciliation periods** during which the direction applies.

...

15.20D Reconciliation manager to provide loss adjusted and summarised dispatchable load information to dispatchable load purchasers and battery energy storage system owners

At the same time the **reconciliation manager** provides the information described in clause 15.20C to the **clearing manager**, the **reconciliation manager** must provide each **dispatchable load purchaser and battery energy storage system owner** with the part of the information that relates to the **dispatchable load purchaser or battery energy storage system owner**.

...

15.38 Functions requiring certification

- (1) Subject to subclause (3), and to clauses 2A and 2B of Schedule 15.1, a **reconciliation participant** must obtain and maintain **certification** under Schedule 15.1 to be permitted to perform, or to have performed by an agent or agents, any of the following functions

Proposed **FINAL** Code amendment
(proposed to replace the interim amendment after 17 months, approx. Dec 2027)

- (a) into 1 file for each **consumption period, dispatchable load information** received under clause 15.5D(1)(a); and
 - (b) into 1 file for each **consumption period, dispatchable load information** received under clause 15.5D(1)(b) and updated under clause 15.20A.
- (3) The **Authority** may direct the **reconciliation manager** to apply specified values for **loss factors** for each **loss category** for a **reconciliation period** for which the **registry manager** does not provide the **reconciliation manager** with the **loss factors** for each **loss category** in accordance with clause 11.26(b).
- (4) If the **Authority** makes a direction under subclause (3), the **reconciliation manager** must apply the values as **loss factors** to the relevant **dispatchable load information** for all **reconciliation periods** during which the direction applies.

15.20D Reconciliation manager to provide loss adjusted and summarised dispatchable load information to dispatchable load purchasers and battery energy storage system owners

At the same time the **reconciliation manager** provides the information described in clause 15.20C to the **clearing manager**, the **reconciliation manager** must provide each **dispatchable load purchaser and battery energy storage system owner** with the part of the information that relates to the **dispatchable load purchaser or battery energy storage system owner**.

...

15.38 Functions requiring certification

- (1) Subject to subclause (3), and to clauses 2A and 2B of Schedule 15.1, a **reconciliation participant** must obtain and maintain **certification** under Schedule 15.1 to be permitted to perform, or to have performed by an agent or agents, any of the following functions

<p style="text-align: center;">Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)</p>	<p style="text-align: center;">Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)</p>
<p>under this Code:</p> <ul style="list-style-type: none"> (a) maintaining registry information and performing ICP switching (except if the maintenance of registry information is carried out by a distributor under Part 11): (b) gathering and storing raw meter data: (c) creating and managing (including validating, estimating, storing, correcting and archiving)— <ul style="list-style-type: none"> (i) half hour volume information; or (ii) non half hour volume information; or (iii) half hour and non half hour volume information: (iv) <i>[Revoked]</i> (d) delivery of: <ul style="list-style-type: none"> (i) a report under clause 15.6 and the calculation of the number of ICP days detailed in the report: (ii) electricity supplied information under clause 15.7: (iii) information from retailer and direct purchaser half hourly metered ICPs under clause 15.8: (da) <i>[Revoked]</i> (db) <i>[Revoked]</i> (e) provision of submission information for reconciliation. (f) <i>[Revoked]</i> <p>(1A) In addition to the functions in subclause (1), a reconciliation participant that is a dispatchable load purchaser <u>or battery energy storage system owner</u> must obtain and maintain certification under Schedule 15.1 to be permitted to perform, or to have performed by an agent or agents, any of the following functions under this Code:</p> <ul style="list-style-type: none"> (a) <i>[Revoked]</i> (b) creating and managing (including validating, estimating, storing, correcting, and archiving) dispatchable load information; and 	<p>under this Code:</p> <ul style="list-style-type: none"> (a) maintaining registry information and performing ICP switching (except if the maintenance of registry information is carried out by a distributor under Part 11): (b) gathering and storing raw meter data: (c) creating and managing (including validating, estimating, storing, correcting and archiving)— <ul style="list-style-type: none"> (i) half hour volume information; or (ii) non half hour volume information; or (iii) half hour and non half hour volume information: (iv) <i>[Revoked]</i> (d) delivery of: <ul style="list-style-type: none"> (i) a report under clause 15.6 and the calculation of the number of ICP days detailed in the report: (ii) electricity supplied information under clause 15.7: (iii) information from retailer and direct purchaser half hourly metered ICPs under clause 15.8: (da) <i>[Revoked]</i> (db) <i>[Revoked]</i> (e) provision of submission information for reconciliation. (f) <i>[Revoked]</i> <p>(1A) In addition to the functions in subclause (1), a reconciliation participant that is a dispatchable load purchaser <u>or battery energy storage system owner</u> must obtain and maintain certification under Schedule 15.1 to be permitted to perform, or to have performed by an agent or agents, any of the following functions under this Code:</p> <ul style="list-style-type: none"> (a) <i>[Revoked]</i> (b) creating and managing (including validating, estimating, storing, correcting, and archiving) dispatchable load information; and

Proposed INTERIM Code amendment (proposed to be in place for 17 months from approx. Sept 2026)	Proposed FINAL Code amendment (proposed to replace the interim amendment after 17 months, approx. Dec 2027)
<p>(c) providing dispatchable load information.</p> <p>(1B) <i>[Revoked]</i></p> <p>(2) <i>[Revoked]</i></p> <p>(3) A distributor that is a reconciliation participant need not obtain or maintain certification in accordance with subclause (1) if it is a reconciliation participant only because it is responsible for an interconnection point.</p>	<p>(c) providing dispatchable load information.</p> <p>(1B) <i>[Revoked]</i></p> <p>(2) <i>[Revoked]</i></p> <p>(3) A distributor that is a reconciliation participant need not obtain or maintain certification in accordance with subclause (1) if it is a reconciliation participant only because it is responsible for an interconnection point.</p>

Appendix B Format for submissions

Wholesale market arrangements for battery energy storage systems – Code amendment consultation

Submitter	
------------------	--

Questions	Comments
<i>Issue 1: Dispatch requirements for BESS when charging</i>	
Q1. Do you agree with our proposal to require BESSs to be dispatchable while consuming?	
Q2. Do you have any comments on our proposed Code drafting for issue 1?	
<i>Issue 2: bids and offer forms for BESS</i>	
Q3. Do you agree with our proposal to have separate offers and dispatch for interruptible load and generation reserve?	
Q4. Do you agree with our proposal that BESS owners have 10 price bands for their bids and 10 price bands for their offers. If not, how many price bands do you think they should have?	
Q5. Do you agree with our proposal that BESS owners not be required to submit maximum up and down ramp rates?	
Q6. Do you agree with our proposal to address issue 2?	
Q7. Do you have any comments on our proposed Code drafting for issue 2?	
<i>Issue 3: gate closure arrangements for BESS</i>	
Q8. Should BESS owners be able to withhold energy if requested to do so in a grid emergency?	
Q9. Should BESS bid and offer arrangements be aligned?	
Q10. Do you think greater clarity is needed around the circumstances which allow trade revisions after gate closure?	
Q11. Do you agree that, to align with forecast schedules, the SoC constraint that	

applies in the dispatch schedule should be based on energy availability over a half hour period? If not, do you think it should be based on energy availability over a 5 minute period, or the energy availability over the time remaining before the end of the trading period?	
Q12. Should state of charge constraints account for round trip losses? If not, why not?	
Q13. Do you agree that the WITS manager and clearing manager require SoC constrained bid and offer information to perform their functions?	
<i>Issue 3: final proposal</i>	
Q14. Do you agree with our proposal to make gate closure arrangements the same between operational states and between grid-connected and embedded BESSs?	
Q15. If we decided to make gate closure one hour for embedded BESSs, do you consider a legacy clause may be warranted? If so, what do you consider the details of that clause should be?	
Q16. Do you agree with how we propose to incorporate round-trip losses in calculating state of charge constraints? If not, is there a better alternative to ensure state of charge constraint accuracy?	
Q17. Are there any other factors that need to be taken into account in adjusted capacities and limits?	
Q18. Are there are any other reasons why a BESS owner should be able to, or need to, revise their trades after gate closure? If so, what?	
Q19. Do you agree with our proposal to address issue 3?	
Q20. Do you have any comments on our proposed Code drafting to address issue 3?	
<i>Issue 3: Interim proposal</i>	
Q21. Are there any other factors that need to be taken into account in adjusted capabilities under our interim proposal??	

Q22. Are there any other reasons why a BESS owner should be able to, or need to, revise their trades after gate closure under our interim proposal? If so, what are these reasons?	
Q23. Do you agree with our interim proposal to address issue 3?	
Q24. Do you have any comments on our proposed Code drafting for our interim proposal to address issue 3?	
<i>Issue 4: constrained off payments</i>	
Q.25. Do you agree with the Authority's decision not to propose removing constrained off payments for BESSs while charging at this stage? If not, why not?	
<i>BESS owners' existing obligations</i>	
Q26. Do you consider our proposed Code amendment accurately captures BESS owners' obligations in Parts 13, 14, and 15 of the Code?	
<i>Regulatory Statement for the proposed Code amendment</i>	
Q27. Do you agree with the objectives of the proposed amendment? If not, why not?	
Q28. Do you agree the benefits of the proposed amendment outweigh its costs?	
Q29. Can you provide any evidence or further information about potential benefits or costs?	
Q30. Do you agree the proposed amendment 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 Act.	
Q31. Do you agree the Authority's proposed amendment complies with section 32(1) of the Act?	
<i>Code drafting</i>	
Q32. Do you have any comments on the drafting of the proposed amendment?	