

MINUTES OF CQTG MEETING 15

Held on Wednesday 3 December 2025, 1.02pm – 2.42pm
Electricity Authority office – Wellington (online)

Members present: Sheila Matthews (Chair), Graeme Ancell, Matt Copland, Brent Duder-Findlay, Barbara Elliston, Brad Henderson, Stuart Johnston, Stuart MacDonald, Mike Moeahu, Rob Orange, Jon Spiller, Philip Wong Too.

In attendance: Phillip Beardmore, Otis Boyle, Elzeth Grant-Fargie, David Hume, Victor Lo, Roger Miller, Rob Mitchell, Amelia Tan, Nyuk-Min Vong (Vong).

1. Introduction

- 1.1 The Chair welcomed attendees to the fifteenth meeting of the Common Quality Technical Group (CQTG). A quorum was established, with all twelve members present.
- 1.2 The purpose of the meeting was for CQTG members to provide feedback on the Authority's draft consultation paper, which contained various Code amendment proposals related to the common quality obligations.
- 1.3 The CQTG approved the minutes from meetings 13 and 14.

Action Item 15.1: Authority to finalise and publish the minutes from meetings 13 and 14.

2. FSR 101 – Align over frequency Limits between Code and Policy Statement

- 2.1 Elzeth presented issue FSR 101. Key points from the discussion included:
 - (a) The CQTG discussed the existence of different frequency limits in the North Island and South Island. There was consensus that it would be a big undertaking to move from the current arrangement to having the same frequency limits across the islands, with careful consideration required.
 - (b) CQTG members queried whether there is an obligation for generators to remain connected up to 55 Hertz (Hz). The Authority noted that the Code is silent on that point and there are no asset owner performance obligations (AOPOs) on generators for over-frequency. The system operator noted that it agrees over-frequency protection settings with generators during the commissioning of a new generating station.

- (c) The CQTG queried whether the system operator monitors over-frequency events. The system operator confirmed that it monitors both over- and under-frequency events. The system operator does online frequency studies to make sure it has enough over-frequency arming.
- (d) There was a broader discussion about the under- and over-frequency limits in the Code and whether these are still appropriate. The limits were put in place in 2001 and there has been a lot of changes since then and further changes expected in the future with large loads connecting, such as data centres. It was agreed that the under- and over-frequency limits in the Code should be reviewed. The CQTG agreed that such a review is beyond the scope of the current consultation paper and should be added to the Authority's work programme to be done in the future.

Action Item 15.2 Authority to add to its work programme a review of the under- and over-frequency limits in the Code, considering changes expected to the power system such as large loads connecting.

- (e) There is a requirement in the Code for generators to notify the system operator of actions they have taken when frequency rises above 50.5Hz. The CQTG noted frequency rises about 50.5Hz when a pot line trips at the Tiwai aluminium smelter. CQTG members queried if the system operator gets these notifications and whether they are useful. The system operator responded that it generally does not need this information only gets it upon request. The CQTG agreed that this obligation should be reviewed to see whether it is still needed.

Action Item 15.3: Authority to consider reviewing the obligation on generators to notify the system operator of actions they have taken when frequency rises above 50.5Hz.

3. FSR 102 – Clarify the connection transformer is at the point of connection

3.1 Elzeth presented issue FSR 102. Key points from the discussion included:

- (a) The CQTG queried whether this amendment would apply to existing as well as future generating stations. The Authority confirmed this was the case but existing generating stations with connection transformers that have no on-load tap changers will be covered by dispensations, and so would not be affected by the Code amendment proposal.
- (b) The CQTG thought the proposed drafting could cause confusion and recommended the Authority review the wording further. For example:
 - (i) The words 'directly connected to the grid' might imply there is no step-up transformer at the generating station's point of connection to the grid.
 - (ii) Is it necessary to have both clause 2 and the proposed clause 2A?

Action Item 15.4: Authority to review the Code drafting for item FSR 102 (Clarify the connection transformer is at the point of connection) to address feedback from the CQTG.

4. FSR 103 – Amend the definitions for ‘fast instantaneous reserve’ and ‘sustained instantaneous reserve’ to remove confusion

4.1 Elzeth presented issue FSR 103. Key points from the discussion included:

- (a) Did the proposal represent an improvement on the status quo? Under the proposal, the ‘fast instantaneous reserve’ and ‘sustained instantaneous reserve’ products were not fully defined in the main body of the Code, as is currently the case under the status quo. The Authority responded that fully defining these products in the main body of the Code would be more cumbersome and inflexible than doing so in the ancillary services procurement plan. It is sufficient for the main body of the Code to say that ‘fast instantaneous reserve’ applies for up to 60 seconds and ‘sustained instantaneous reserve’ applies for at least 15 minutes. This enables the two types of reserve to be easily differentiated.
- (b) Another query raised by the CQTG was whether the definition of ‘interruptible load’ should be amended to say that this reserve product must be provided within six seconds rather than within one second. This would be to try and avoid complicating a future state containing a different type of fast reserve product. The Authority responded that this is best considered as part of the market capability work the Authority has signalled will be happening in the future.
- (c) There was a query whether ‘contingent event’ should be replaced with ‘under-frequency event’, and whether ‘extended contingent event’ should be referred to in the definitions of ‘fast instantaneous reserve’ and ‘sustained instantaneous reserve’? The CQTG agreed that these two definitions should refer to ‘contingent event’ and ‘extended contingent event’.

Action Item 15.5 Authority to add ‘extended contingent event’ after ‘contingent event’ in the definitions of ‘fast instantaneous reserve’ and ‘sustained instantaneous reserve’ under FSR 103.

5. FSR 104 – Updating fault ride through exclusions

5.1 Elzeth presented issue FSR 104.

5.2 CQTG members queried whether it would be possible to simplify the wording for clause 8.25B(2) and (3). It could be done by combining the 2 sub-clauses. After some discussion it was agreed that the current wording would be sufficient and no further changes were needed.

6. FSR 105 – Clarify who provides information to assess compliance with fault ride through obligations

6.1 Amelia presented issue FSR 105. Key points from the discussion included:

- (a) The Authority clarified that the intention of the proposed Code amendment is to reflect what is currently happening.
- (b) The CQTG noted that the current drafting does not cover the information from embedded generation and suggested including another subclause

to capture this. The CQTG suggested avoiding the use of 'and/or' in Code drafting as this is ambiguous – only use it if absolutely needed.

Action Item 15.6: Authority to add a subclause in the Code drafting under FSR 105 to explicitly capture embedded generation and network models provided by distributors.

7. FSR 106 – Administrative timeline for dispensations, equivalence arrangements and alternative ancillary arrangements

- 7.1 Amelia presented issue FSR 106.
- 7.2 The CQTG was generally comfortable with the proposal to extend the administrative timeline from 5 business days to 10 business days.
- 7.3 A potential issue noted was if there is a need for an application to be progressed quickly. The Authority responded that the wording 'as soon as practicable' should address this concern. The CQTG agreed no changes were required to the proposal.
- 7.4 The CQTG noted that Transpower, as a transmission grid owner, has needed to review a couple of dispensation applications for potential impacts on the transmission grid. The system operator has had to get agreement from the asset owners to share information with the grid owner. The Authority agreed it should consider this information-sharing need as part of stage 2 of the common quality-related information workstream.

Action Item 15.7: Authority to consider allowing the system operator to share dispensation information with the grid owner under stage 2 of the common quality-related information work.

8. FSR 107 – Frequency support requirements for South Island generators

- 8.1 Amelia presented issue FSR 107.
- 8.2 The CQTG was generally comfortable with the proposal. The Authority noted that it will clarify the drafting of clause 8.17 to refer to the asset being synchronised, not the asset owner.

Action Item 15.8 Authority to amend drafting in clause 8.17 of the Code to clarify that the term “synchronised” applies to the asset not the asset owner (FSR 107).

9. AOB

- 9.1 It was noted that there will be a workshop on reactive power flow at the grid exit point on 26 February 2026. Attendees will be encouraged to attend the event in person.
- 9.2 The next CQTG meeting will likely be held in February 2026 to discuss the draft options papers for harmonics and AOPOs for hybrid plant and battery energy storage systems in the 'idle' state. Dates will be advised in December 2025.
- 9.3 The meeting closed at 2.42pm.

Summary of outstanding action points

No.	Action	Who	Status
5.15	Authority to consider the appropriateness of including in the Code a new definition ‘generating system’. Update: This is now included in the hybrid stations/BESS AOPO work.	Authority	In progress
7.2	Voltage issue: Authority to consider clarifying the terms “synchronised”, and “available for dispatch” in clause 8.23 of the Code.	Authority	In progress
7.7	Voltage issue: Authority to consider submitters’ concerns about the potential costs of Option 2 as part of evaluating the option’s benefits and costs.	Authority	In progress
7.12	Harmonic issue: Authority to develop harmonics options 1 and 2, discuss with the harmonics sub-group, and present a draft options consultation paper to the CQTG in Q1 2026.	Authority	In progress
8.11	Authority to elaborate (under FSR-007 in the first tranche of Code amendment proposals covering Issues 6 (information) and 7 (Code terminology)) that further clarification of how clauses 8.17 and 8.19 would apply to BESS will be provided in the DIBR. Update: This is now included in the hybrid stations/BESS AOPO work rather than the DIBR	Authority	In progress
9.6	Authority to further develop Alternative 1 for the co-ordination of reactive power flows through GXPs, to establish a bilateral information-sharing framework between the system operator and distributors.	Authority	Not started
9.9	Authority to clarify the definition of “idle” in relation to BESS AOPOs, and to clarify the voltage AOPOs when in standby mode.	Authority	In progress

	Update: This is now included in the hybrid stations/BESS AOPO work.		
12.1	Authority to consider an external peer review on the system strength work.	Authority	Not started
13.1	Authority to consider incorporating the CQTG's feedback into the frequency-related decision paper.	Authority	In progress
13.2	Authority to consider incorporating the CQTG's feedback into the voltage-related decision paper.	Authority	In progress
13.3	Authority to consider incorporating the CQTG's feedback into the information-related decision paper.	Authority	Not started
13.4	System operator to consider incorporating the CQTG's feedback into the CACTIS.	System operator	In progress
14.1	Clarify that the reactive power threshold for asset group 2 is 10MVAR not 10MW.	System operator	
14.2	Draft the Code clauses on grandfathering common quality information obligations, so as to link an existing asset's grandfathering status to its capability to comply with the Code obligation – ie, per the grandfathering provisions in the frequency and voltage Code amendment proposals.	Authority	
14.3	Consider using 'reasonable endeavours' instead of 'best endeavours' in the CACTIS.	System operator	
14.4	System operator to include in its periodic testing guidelines guidance on how high-speed data can be used for periodic testing.	System operator	
14.5	Investigate the option of a uniform standard for use in timestamping / data recording for the New Zealand power system and electricity market.	System operator	

14.6	System operator to incorporate in its commissioning guideline a recommendation that asset owners / developers submit draft studies to the system operator three months prior to the commissioning date.	System operator	
14.7	Liaising with the Authority, the system operator to work with asset owners and OEMs to prepare contract template terms relating to the provision of models by OEMs. Include escrow terms.	System operator	
14.8	Include in Part 8 of the Code a cost recovery mechanism for the system operator to do studies and model benchmarking on behalf of asset owners.	Authority	
15.1	Authority to finalise and publish the minutes from meetings 13 and 14.	Authority	In progress
15.2	Authority to add to its work programme a review of the under- and over-frequency limits in the Code, considering changes expected to the power system such as large loads connecting.	Authority	In progress
15.3	Authority to consider reviewing the obligation on generators to notify the system operator of actions they have taken when frequency rises above 50.5Hz.	Authority	Not started
15.4	Authority to review the Code drafting for item FSR 102 (Clarify the connection transformer is at the point of connection) to address feedback from the CQTG.	Authority	Completed
15.5	Authority to add 'extended contingent event' after 'contingent event' in the definitions of 'fast instantaneous reserve' and 'sustained instantaneous reserve' under FSR 103.	Authority	Completed
15.6	Authority to add a subclause in the Code drafting under FSR 105 to explicitly capture embedded	Authority	Completed

	generation and network models provided by distributors.		
15.7	Authority to consider allowing the system operator to share dispensation information with the grid owner under stage 2 of the common quality-related information work.	Authority	Not started
15.8	Authority to amend drafting in clause 8.17 of the Code to clarify that the term “synchronised” applies to the asset not the asset owner (FSR 107).	Authority	Completed

Confirming the CQTG has approved these meeting minutes are a true and correct record.

Dated this 4th day of March 2026



Sheila Matthews

Chair