

## MINUTES OF CQTG MEETING 8

**Held on Wednesday 29 January 2025, 10:00am – 11:45am**  
**Online meeting**

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**Members present:** Sheila Matthews (Chair), Graeme Ancell (until 11:31am), Matt Copland, Brent Duder-Findlay, Barbara Elliston, Stuart Johnston, Stuart MacDonald, Mike Moeahu, Rob Orange, Gareth Williams.

**Apologies:** Brad Henderson, Jon Spiller.

**In attendance:** Phillip Beardmore, Otis Boyle, Nyuk-Min Vong (Vong), Rob Mitchell.

### Introduction

- 1.1 The Chair welcomed attendees and summarised the purpose of this online meeting, which was to provide Common Quality Technical Group (CQTG) members with an opportunity to provide feedback on the draft Part 8 Code amendment – Part 1 decision paper.
- 1.2 The Chair noted that Gareth Williams will continue as a member of the CQTG in an individual capacity as he is no longer an employee of SolarZero.
- 1.3 Reviewing the minutes from the previous CQTG meeting will be carried forward to the next meeting, scheduled on Tuesday 18 February 2025.

### Summary of the key discussion points

- 1.4 Otis introduced the paper and requested feedback from the CQTG. The key points from the CQTG's discussion are summarised below.

***FSR-001: Remove the exclusion for wind-powered generation from periodic testing requirements***

- 1.5 The Authority is in discussions with the system operator around preparing a document incorporated by reference (DIBR) in the Code that covers asset commissioning, testing and information requirements. The Authority considers this document would be the best place to:
  - (a) clearly define 'point of control'. The current definition can be ambiguous in some cases and may even change when a generating unit is reconfigured. The CQTG have recommended clarifying the definition.

- (b) clarify that the routine testing requirements for IBR in clause 4 of Appendix B of Technical Code A, to specify that the main generating station's transformer needs to be tested, rather the transformer for each generating unit.

**Action Item 8.1: Authority / system operator to define “point of control” and specify the applicable transformer for routine testing of IBR in the DIBR.**

**FSR-002:** *Clarify that embedded generators must provide an asset capability statement in a format specified by the system operator*

- 1.6 The Authority needs to reconsider using the term “continuous rating” in this proposal, as it would not work for batteries. The CQTG recommended that the Authority will note that it specifically refers to AC rather than DC.
- 1.7 The CQTG also suggested that another term or clause for energy storage systems (ESS) may be desirable but agreed that the Authority will not include it as part of this proposal.

**Action Item 8.2: Authority to add “AC” in brackets to the proposed amendment.**

**Action Item 8.3: Graeme to email Vong information on ESS capability as input to the system operator clarifying the ACS information requirements.**

**FSR-003:** *Include all participants as potential causers of under-frequency events*

- 1.8 Matt clarified the comment in the draft paper on Transpower “liking” to back-to-back under-frequency event (UFE) obligations. Transpower passes on UFE causer charges, not UFE obligations, and only does this in certain scenarios. Transpower contracts with generators that have a hard ‘T’ connection to the grid, to pass on any Transpower UFE event charges associated with Transpower’s assets causing a UFE that results in the generator with the hard ‘T’ connection being disconnected from the grid because the generator does not have n-1 security. The Authority agreed to either tweak the wording in the draft paper, or to add quotation marks to make it clear that it is the view of a submitter.
- 1.9 The CQTG also noted that it is unlikely that distributors will seek to back-to-back UFE causer charges because there is unlikely to be enough embedded generation at a GXP to cause a UFE. Any instances would likely be very rare.

**Action Item 8.4: Authority to either tweak the wording of paragraph 3.46 or put submitter feedback in quotation marks.**

**Action Item 8.5: Authority to note in decision paper that it doesn’t consider the possibility of distributors seeking back-to-back UFE causer charges should be a material issue.**

**FSR-004:** *Amend the requirement to have a speed governor*

- 1.10 CQTG members noted that dispensations are in place for generating plant 30MW and above, but dispensations would also be needed for those under 30MW under the proposal. The Authority will consider the grandfathering point as part of the frequency and voltage Code amendment proposal papers.

**Action Item 8.6: Authority to clarify in the DIBR which (i) control setting changes are considered/deemed to affect frequency control, and (ii) firmware changes are considered/deemed to affect frequency response performance.**

***FSR-005:** Amend the requirement to have an excitation system*

1.11 The discussion on FSR-004 also applies to FSR-005.

**Action Item 8.7: Authority to clarify in the DIBR which (i) control setting changes are considered/deemed to affect voltage control, and (ii) firmware changes are considered/deemed to affect voltage response performance.**

***FSR-006:** Amend the Code to apply to all dynamic reactive power compensation devices*

1.12 The Authority will be looking at testing obligations for distribution-connected dynamic reactive power compensation devices as part of a separate workstream. Sheila advised that the Authority is also separately looking at clarifying the term “connected to the grid”.

**Action Item 8.8: Authority to clarify in the decision document that the Authority will look at testing obligations on distribution-connected dynamic reactive power compensation devices as part of a separate Authority workstream.**

**Action Item 8.9: Authority to discuss internally the possibility of the NCTG looking at testing obligations on distribution-connected dynamic reactive power compensation devices.**

***FSR-007:** Treat energy storage systems as only generation for the purposes of Part 8*

1.13 The CQTG raised slightly different interpretations of how clauses 8.17 and 8.19 would apply to BESS under the proposal. Members agreed that the text in the draft paper is fine but recommended adding an explanation that further clarification will be provided in the proposed DIBR.

1.14 Stuart M requested a progress update for the work the Authority is doing to clarify how aggregators with BESS should be treated under the Code’s automatic under-frequency load shedding (AUFLS) obligations. This is an item that is being addressed by another team within the Authority.

**Action Item 8.10: Authority to set out in the decision paper the Authority’s interpretation of ESS obligations under clauses 8.17 and 8.19.**

**Action Item 8.11: Authority to elaborate (under FSR-007) that further clarification of how clauses 8.17 and 8.19 would apply to BESS will be provided in the DIBR.**

**Action Item 8.12: Authority to follow on Stuart M’s question regarding how aggregators with ESS should be treated under the Code’s AUFLS obligations.**

***FSR-008:** Clarify the definition of generating unit*

1.15 Phillip clarified that the intent of the proposal is to clarify that a generating unit is the smallest set of equipment that produces electricity, and then to the extent that we need to put in the Code requirements to build on the definition in different ways, we will do so. The proposed definition itself is not intended to solve every problem.

### ***FSR-009: Clarify the Code's fault ride through requirements***

- 1.16 Members agreed that the Authority's decision not to proceed with this proposal sounds reasonable, based on the explanation given in the draft paper.

#### ***Any other business:***

- 1.17 Stuart M recommended clarifying the difference between this paper's consideration of the information requirements common quality issue (Issue 6) and the consideration of this issue under the information requirements discussion paper.

**Action Item 8.13: Authority to clarify the difference between the consideration of Issue 6 (information requirements) in the decision paper, as opposed to its consideration in the separate information requirements workstream.**

- 1.18 There were issues with CQTG members trying to open documents in the dedicated CQTG Teams channel, using the links provided by Authority staff. It was noted that there was no issue if CQTG members go into the shared folder and find the document themselves.

**Action Item 8.14: Authority to share files via Microsoft Teams, requesting members to go into the folder to find the documents rather than providing direct links.**

- 1.19 The Authority agreed to send the meeting slides out to the CQTG members.

**Action Item 8.15: Authority to send the meeting slides to CQTG members.**

- 1.20 The Authority agreed to consider all feedback and update the paper accordingly.

- 1.21 The meeting ended at 11.45am.

### **Summary of outstanding action points**

No.	Action	Who	When
5.4	<ul style="list-style-type: none"><li>Authority to consider reviewing the periodic testing requirements, so that Part 8 of the Code contains high-level output-focussed obligations and specific testing requirements are placed in a separate document incorporated by reference into the Code.</li></ul>	Authority	In progress
5.15	<ul style="list-style-type: none"><li>Authority to consider the appropriateness of including in the Code a new definition 'generating system'.</li></ul>	Authority	Not started
7.1	<ul style="list-style-type: none"><li>CQTG chair to sign the minutes of the fifth (subject to amendment of paragraph 2.3(a)) and sixth CQTG</li></ul>	Authority	Completed

	meetings and publish the minutes on the Authority's website.		
7.2	<ul style="list-style-type: none"> <li>Voltage issue: Authority to consider clarifying the terms "synchronised", and "available for dispatch" in clause 8.23 of the Code.</li> </ul>	Authority	In progress
7.3	<ul style="list-style-type: none"> <li>Voltage issue: Authority to consider a threshold of 5MW or 10MW, working with the system operator, and considering compliance costs, and considering grandfathering for some or all existing generating stations that are under the 30MW threshold (including what clauses/subclauses would be subject to grandfathering).</li> </ul>	Authority	Completed
7.4	<ul style="list-style-type: none"> <li>Voltage issue: Authority to consult distributors (likely via Electricity Networks Aotearoa (ENA)) on a <math>\pm 33\%</math> net reactive power range for generators connected to distribution networks, explaining the reasons for this range when doing so.</li> </ul>	Authority	Not started
7.5	<ul style="list-style-type: none"> <li>Voltage issue: System operator to carry out further voltage-related studies to determine whether the GXP power factor requirements in the Code should be revised.</li> </ul>	System operator	In progress
7.6	<ul style="list-style-type: none"> <li>Voltage issues: System operator to share the high-level scope of the voltage-related studies with the CQTG's voltage sub-group for feedback.</li> </ul>	System operator	Completed
7.7	<ul style="list-style-type: none"> <li>Voltage issue: Authority to consider submitters' concerns about the potential costs of Option 2 as part of evaluating the option's benefits and costs.</li> </ul>	Authority	In progress
7.8	<ul style="list-style-type: none"> <li>Voltage issue: Authority to obtain from Professor Neville Watson relevant GFM papers (eg, a 2023 PhD thesis, CIGRE papers).</li> </ul>	Authority	Completed
7.9	<ul style="list-style-type: none"> <li>Voltage issue: Authority to add GFM as a topic to the system</li> </ul>	Authority	Not started

	strength work in the FSR roadmap (item 6) in the next financial year.		
7.10	<ul style="list-style-type: none"> <li>Harmonic issue: Authority to raise the device standard issue with MBIE and propose removing NZECP 36:1993.</li> </ul>	Authority	In progress
7.11	<ul style="list-style-type: none"> <li>Harmonic issue: Authority to invite Professor Neville Watson to the Authority/MBIE/WorkSafe monthly meetings on the harmonics issue.</li> </ul>	Authority	Completed
7.12	<ul style="list-style-type: none"> <li>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 2025.</li> </ul>	Authority	Not started
7.13	<ul style="list-style-type: none"> <li>Frequency issue: Authority to consider a threshold of 5MW or 10MW, working with the system operator, and considering compliance costs and grandfathering (including what clauses/subclauses would be subject to grandfathering).</li> </ul>	Authority	Completed
7.14	<ul style="list-style-type: none"> <li>Frequency issue: Authority to clarify whether the proposal is to align the Code with AS/NZS 4777.2 by amending the Code or the standard.</li> </ul>	Authority	Completed
7.15	<ul style="list-style-type: none"> <li>Frequency issue: Authority to further investigate option 2, with a particular focus on learnings from Australia's implementation of a uniform small deadband.</li> </ul>	Authority	In progress
7.16	<ul style="list-style-type: none"> <li>System operator to conduct a literature review on BESS performance obligations and share a proposed high-level scope for system studies with the CQTG.</li> </ul>	System operator	In progress
8.1	<ul style="list-style-type: none"> <li>Authority / system operator to define "point of control" and specify the applicable transformer for routine testing of IBR in the DIBR.</li> </ul>	Authority / system operator	
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Confirming the CQTG has approved these meeting minutes are a true and correct record.

Dated this 11<sup>th</sup> day of April 2025




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Sheila Matthews

**Chair**