

MINUTES OF CQTG MEETING 2

**Held on 10 August 2023, 9:30am – 3pm
Electricity Authority office – Wellington**

Members present: Sheila Matthews (Chair), Graeme Ancell, Chris Conway, Matt Copland, Barbara Elliston, Brad Henderson, Stuart Johnston, Stuart MacDonald, Mike Moeahu, Jon Spiller, Gareth Williams

Apologies: Rob Orange

In attendance: Phillip Beardmore, Rob Mitchell, Nyuk-Min Vong (Vong), Clive Bull (1pm–3pm)

1. Introduction

- 1.1 The Chair welcomed members to the second meeting of the Common Quality Technical Group (CQTG). A quorum was established, with all members in attendance with the exception of Rob Orange. Brad Henderson, Mike Moeahu and Gareth Williams were in attendance remotely via Microsoft Teams.
- 1.2 The Chair presented the meeting agenda, the objectives of the day, and provided an update on the actions noted from the first meeting.
- 1.3 The group approved the minutes from the first meeting. The Chair will sign the minutes, and the Authority will publish the document on its website.

Action 2.1: CQTG chair to sign the minutes of the CQTG meeting of 6 July 2023 and Authority to publish the minutes.

2. Assessment of options raised by members at the first CQTG meeting

- 2.1 Phillip led a discussion on the 10 additional options raised at the CQTG Meeting #1, confirming 6 of them had been evaluated against criterion 1, and those that passed this assessment had been evaluated further against the remaining 6 evaluation criteria.
- 2.2 Phillip explained that the Authority sought clarification / further information from the CQTG in relation to the remaining 4 additional options in order to evaluate them.
- 2.3 After discussing each of these four options, the CQTG agreed:
 - **Option 36** (to address issues 2-4): The CQTG agreed the Authority should seek clarification from Rob Orange (absent at this meeting) in relation to this option.

- **Option 37** (to address issues 2-4): The CQTG agreed this option did not pass the first evaluation criterion, and that it should be re-evaluated in the first quarter of 2024, along with the other options that did not pass the first evaluation criterion.
- **Option 41** (to address issue 6): The CQTG agreed this is an option distributors should consider, and that this option should be included in the Authority's review of the regulatory settings for distribution networks.
- **Option 43** (to address issue 6): The CQTG agreed the Authority should seek clarification from Rob Orange (absent at this meeting) in relation to this option.

Action 2.2: Authority to:

- **Options 36 and 43:** follow up with Rob Orange
- **Option 37:** revisit this option in the first quarter of 2024, along with the other options that did not pass the first evaluation criterion
- **Option 41:** pass this option to the Authority's Retail & Network Markets team for consideration as part of the Authority's review of the regulatory settings for distribution networks.

3. Ranking of options in the medium list following the Authority's assessment

- 3.1 Phillip presented the medium list of options following their assessment against the seven evaluation criteria.
- 3.2 Following discussion on each of the options, the CQTG agreed the following:
- Options 1, 2, 3, 8, 9, 10, 13, 15, 16, 17, 18, 20, 21, 35, 39: Accepted in the short list of options, with options 17, 20 and 39 to be combined into one option.
 - Options 4, 5, 7, 11, 12: Being done by other projects within the Authority, and therefore will not be considered as part of this project.
 - Option 6: Agreed it can be put on hold for the time being and reviewed in approximately 6–12 months.
 - Option 19: Close / remove from the options because this option should be actioned by way of contract matter rather via the Code.
 - Option 14: Close / remove from the options as this option is included under the 'governance of harmonics' option.
- 3.3 The CQTG discussed the absence of option 34 from the medium list of options. This option was to increase, from 45 Hz to 47 Hz, the minimum frequency at which South Island generation assets must remain synchronised for 30 seconds following an underfrequency event. At the CQTG meeting of 6 July, there was strong support for this option from CQTG members when discussing the long list of options.
- 3.4 The Authority explained that although this option did not pass the first evaluation criterion, it had not been discarded. Rather, this option would be reviewed again in

the first quarter of 2024 along with other options that did not pass the first evaluation criterion.

- 3.5 The CQTG requested the Authority provide the CQTG with visibility of progress on the options being progressed by other Authority teams, and also offered to review and provide input for those projects.

Action 2.3: Authority to update the CQTG of progress of workstreams underway and/or scheduled to be done by other Authority teams that are related to this project.

Action 2.4: Authority to schedule a review in the first quarter of 2024 of the options that have been removed from the short list.

4. Scoping studies – frequency issues

- 4.1 Vong led the discussion on the scoping for the frequency related system studies.

- 4.2 Stuart Johnston raised the question of whether caveats could be included as part of the scoping to specifically indicate what is not being included as part of the studies, and provide the assumptions the studies are being done on.

- 4.3 Jon suggested doing the studies without considering batteries for the 2035 case, and then add in factors to see how the results change. This will assist with giving an indication of the time when changes may be likely to occur, and therefore an indication of how and when these will need to be addressed.

- 4.4 Gareth – Study 1: the effect of solar at the distribution end of the system and EV's connecting need to be considered. Suppliers are seeing an increase in battery installations along with solar PV.

Action 2.5: Authority to include caveats and assumptions as part of all the scoping studies.

Action 2.6: Authority to consider doing initial studies without batteries factored in.

5. Scoping studies – voltage issues

- 5.1 Vong led the discussion on the scoping for the voltage related system studies.

- 5.2 Study 1 & 2: Discussed how and what data can be used to do the modelling, i.e. use real data from a NZ context, or use IEEE (or some other international) data.

- 5.3 Study 3: Same model as above can be used for this study.

Action 2.7: Authority to include, under option 8, amending the voltage support asset owner performance obligations in the Code to clarify the reactive power requirements for inverter-based resources.

Action 2.8: CQTG members to look at options for obtaining distribution network data from distributors.

Action 2.9: System operator to provide details of any additional information required for system studies.

Action 2.10: Authority to incorporate feedback from the CQTG into draft high-level scopes of the system studies, and send draft high-level scopes to the respective CQTG subgroups for feedback by 25 August 2023

Action 2.11: Subgroups to provide feedback on draft high-level scopes for system studies 1 week after receiving them

Action 2.12: Authority to incorporate feedback from CQTG subgroups and circulate final drafts of the high-level scopes for system studies to the CQTG within 2 weeks of receiving feedback

Action 2.13: CQTG to provide feedback on final draft of high-level scopes for system studies 1 week after receiving them

Action 2.14: Authority to finalise high-level scopes for system studies within 2 weeks of receiving feedback

Action 2.15: Authority to determine a plan to progress issues 5 (harmonics) and 6 (information)

6. Next meeting

6.1 The chair stated that there is no need to schedule another meeting for the foreseeable future.

6.2 The meeting closed at 2.51pm.

Summary of outstanding action points

No.	Action	Who	When
1.3	<ul style="list-style-type: none"> Evaluate against the first of the seven evaluation criteria the options added to the draft long list during the CQTG's meeting 1. 	Authority	Completed
1.7	<ul style="list-style-type: none"> Prepare a letter from the CQTG to MBIE, urging MBIE to prioritise proposing an amendment to the Electricity (Safety) Regulations, to permit the supply of electricity to installations operating at 230 volts AC to be within 10% of 230 volts AC. 	Authority	
2.1	<ul style="list-style-type: none"> CQTG chair to sign the minutes of the CQTG meeting of 6 July 2023 and Authority to publish the minutes. 	Authority	Completed
2.2	<ul style="list-style-type: none"> Options 36 and 41: follow up with Rob Orange Option 37: revisit this option in the first quarter of 2024, along with the 	Authority	Completed

	<p>other options that did not pass the first evaluation criterion</p> <ul style="list-style-type: none"> ○ Option 43: pass this option to the Authority's Retail & Network Markets team for consideration as part of the Authority's review of the regulatory settings for distribution networks. 		
2.3	<ul style="list-style-type: none"> ● Update the CQTG of progress of workstreams underway and/or scheduled to be done by other Authority teams that are related to this project. 	Authority	Completed
2.4	<ul style="list-style-type: none"> ● Schedule a review in the first quarter of 2024 of the options that have been removed from the short list. 	Authority	Completed
2.5	<ul style="list-style-type: none"> ● Include caveats and assumptions as part of all the scoping studies. 	Authority	Completed
2.6	<ul style="list-style-type: none"> ● Consider doing initial studies without batteries factored in. 	Authority	Completed
2.7	<ul style="list-style-type: none"> ● Authority to include, under option 8, amending the voltage support asset owner performance obligations in the Code to clarify the reactive power requirements for inverter-based resources. 	Authority	Completed
2.8	<ul style="list-style-type: none"> ● CQTG members to look at options for obtaining distribution network data from distributors. 	Stuart Johnston	Completed
2.9	<ul style="list-style-type: none"> ● System operator to provide details of any additional information required for system studies. 	Authority	Completed
2.10	<ul style="list-style-type: none"> ● Incorporate feedback from the CQTG into draft high-level scopes of the system studies, and send draft high-level scopes to the respective CQTG subgroups for feedback. 	Authority	Completed
2.11	<ul style="list-style-type: none"> ● Provide feedback on draft high-level scopes for system studies 1 week after receiving them 	CQTG sub-groups	Completed

2.12	<ul style="list-style-type: none"> Incorporate feedback from CQTG subgroups and circulate final drafts of the high-level scopes for system studies to the CQTG within 2 weeks of receiving feedback 	Authority	Completed
2.13	<ul style="list-style-type: none"> Provide feedback on final draft of high-level scopes for system studies 1 week after receiving them 	CQTG	Completed
2.14	<ul style="list-style-type: none"> Finalise high-level scopes for system studies within 2 weeks of receiving feedback 	Authority	Completed
2.15	<ul style="list-style-type: none"> Determine a plan to progress issues 5 (harmonics), 6 (information) and 7 (Code terms) 	Authority	

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

Dated this 16th day of April 2024

Sheila Matthews

Chair