

15 November 2024

Electricity Authority
Level 7
AON Centre
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Via email: fsr@ea.govt.nz

Manawa Energy's Submission: Part 8 common quality requirements review

Introduction

Manawa Energy (**Manawa**) welcomes the opportunity to provide a submission to the Electricity Authority (**Authority**) on its two consultations paper relating to the ongoing part 8 common quality requirements review:

- Addressing common quality information requirements (**Information Consultation Paper**), and
- Part 8 Code amendment proposal (**Code Consultation Paper**).

Manawa is an independent power producer with a proven track record of investing in local and grid scale renewable generation. Manawa operates a diverse portfolio of 44 power stations across 25 hydro-electric power schemes, supplying around 5% of New Zealand's electricity needs. In addition to this Manawa also supplies around 600 Commercial and Industrial customers with electricity.

Submission

Manawa is largely in agreement with the issues that the Authority is looking to address in these two consultation papers but is concerned about the timing of them in relation to the wider part 8 common quality requirements review. As per Manawa's submission on the most recent set of common quality consultations (submission dated 22 August 2024), grandfathering arrangements for some existing assets will be required. No formal decision has been made by the Authority about how existing assets are to be treated in relation to common quality and therefore it's important that any decisions made relating to these current papers fully consider the implications to the wider review.

Information Consultation Paper

Manawa is largely in agreement with the issue that the Authority is looking to address and that the short-list of options being considered is appropriate.

Again, Manawa would like to make clear that while agreeing with the whole of system approach taken by the Authority, there can be significant differences between existing assets and future connections and encourages the Authority to consider Manawa's previous submission on the part 8 common quality review (dated 22 August 2024) where the need for grandfathering existing assets is detailed. It will also be important as part of this process to keep in mind that some information is provided on the assets already in Asset Capability Statements (ACS) and repetition of this information elsewhere would be inefficient.

Please see Appendix A below for Manawa’s response to the specific questions in the Information Consultation Paper.

Code Consultation Paper

Manawa is largely in agreement with the issues that the Authority are looking to address in the Code Consultation Paper. However, similar to above, there are instances where existing assets and future connections will need to be considered separately. Manawa has highlighted these instances in Appendix B below (Manawa’s response to the specific questions in the Code Consultation Paper) and would like to refer the Authority to Manawa’s submission dated 22 August 2024 for further detail.

If you have any questions regarding the content of this submission, please contact Mike Moeahu, Principal Engineer Generation

Appendix A – response to the Information Consultation Paper questions

Question	Manawa’s response
Do you agree with the key drivers of change in power system modelling requirements identified in this section? If you disagree, please explain why	In general, Manawa agrees with the key drivers listed.
Are there any other drivers of change in power system modelling requirements which are not covered in this section? If so, please elaborate.	No further additions to add.
Do you agree with the Authority’s elaboration on the common quality-related information issue set out in this section? If you disagree, please explain why.	No further comments to add.
Do you agree that the current provisions in the Code are insufficient to address the common quality-related information issue described in this section? If you disagree, please explain why	Yes, Manawa agrees there are limitations in some provisions in the Code. However, there currently appears to be no common standard or clarity around how this information is managed. It therefore may be that the Code is not the main cause of the issue but rather, individual entities need to have clearer guidelines around how to manage common quality-related information.
Do you consider there to be any other aspects of the common quality-related asset information issue that are not covered in this section? If so, please elaborate	No further comments to add.
Do you agree with the shortlisted options presented by the Authority? If you disagree, please explain why.	Yes.
Do you have any feedback on the desirability of a document incorporated by reference in the Code specifying various common quality-related information requirements	Manawa does not have a view at this stage, however, would be open to contributing to its development.

Do you agree with the pros and cons associated with each option? What costs are likely to arise for affected parties (eg, asset owners, network operators and network owners) under each of the options?	<p>Yes.</p> <p>There will likely be cost reductions if the sharing of data is adopted however, the cost to manage the data and by who may be a challenge.</p> <p>There is potential for a higher cost initially, and any ongoing costs must be distributed evenly.</p>
Do you consider any perceived conflicts of interest under the second and third shortlisted options to be material in nature? If so, please elaborate	<p>Yes, the conflicts outlined in options 2 & 3 are real and Manawa believes these will be material issues. Sharing non-proprietary information is likely to be acceptable.</p> <p>For example, with suppliers of black boxes and their Intellectual Property. This has been discussed with the System Operator (SO), and it has been difficult for them in recent times to gain Intellectual Property on the vendors' equipment.</p>
Do you propose any alternative options to address the common quality-related information issue? If so, please elaborate.	<p>No.</p> <p>However, clarification in the Code as to how the SO will set the guidelines to meet the Code amendments may be necessary. It may also be necessary to clarify the process for if the asset owners do not agree or cannot meet the obligations.</p>
Do you agree with the Authority's high-level evaluation of the short-listed options to help address the common quality related information issue? If you disagree, please explain why.	<p>Yes.</p>

Appendix B – response to the Code Consultation Paper questions

Proposal	Question	Comments
FSR-001: Remove the exclusion for wind-powered generation from periodic testing requirements	Do you support the Authority's proposal to apply the periodic testing requirements in Appendix B of Technical Code A of Schedule 8.3 to wind generation? If you disagree, please give reasons and provide alternatives that address the identified problem with wind generation being excluded from the periodic testing requirements.	<p>Manawa cannot comment on this until further information on how and what periodic testing can be performed. These will need to be defined before a view can be provided.</p> <p>As an example, it needs to be clear whether this will apply to individual turbines or whole windfarms.</p>

	Do you see any unintended consequences in making such an amendment? Please explain your answers.	Further information is required to understand how the testing can be achieved and the related cost.
	Do you agree the proposed Code amendment is preferable to the other option identified? If you disagree, please explain why and give your preferred option in terms consistent with the Authority's main statutory objective in section 15 of the Electricity Industry Act 2010	No, until further information on how testing can be achieved is clear.
	Do you agree with the analysis presented in this Regulatory Statement? If not, why not.	No, further information required (see above).
FSR-002: Clarify that embedded generators must provide an asset capability statement in a format specified by the system operator	Do you support the Authority's proposal to amend the Code to clarify that: <ul style="list-style-type: none"> (a) embedded generators must provide asset capability information to the system operator in the form from time to time published by the system operator, and (b) the requirement to provide an asset capability statement to the system operator applies only to generators with a generating unit with rated net maximum capacity equal to or greater than 1MW? 	Manawa is comfortable with the requirement to provide an ACS statement to the SO. However, more guidance is needed to determine how it will be managed if the SO requires changes to the ACS information provided (particularly if that information is difficult for older assets with more limited information capabilities).
	Do you see any unintended consequences in making such an amendment? Please explain your answers.	Unsure. The unknown factors are around how the generating units, if above the 1MW. capacity, will be managed if they cannot comply.
	Do you agree with the proposed Code amendment? If you disagree, please explain why and give your	Fundamentally Agree. However, it is important to consider that some current assets may not be able to meet the requirements under the Code and the ACS

	preferred option in terms consistent with the Authority's main statutory objective in section 15 of the Electricity Industry Act 2010	requirements. This will need to be managed through grandfathering or dispensations.
	Do you agree with the analysis presented in this Regulatory Statement? If not, why not.	Agree, but as per comments above.
FSR-003: Include distributors and energy storage systems as potential causers of under-frequency events	Do you support the Authority's proposal to amend the definition of 'causer' in clause 1.1 of the Code so that it refers to the action that results in a UFE, including an increase in electricity demand (load), and the consequential amendments to clauses 8.60 to 8.66, including proposed new clause 8.64A?	Yes.
	Do you see any unintended consequences in making such an amendment? Please explain your answers.	No.
	Do you agree the proposed Code amendment is preferable to the other options identified? If you disagree, please explain why and give your preferred option in terms consistent with the Authority's main statutory objective in section 15 of the Electricity Industry Act 2010.	Yes.
	Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Yes.
FSR-004: Amend the requirement to have a speed governor	Do you support the Authority's proposal to amend clause 1.1 of the Code, and clauses 3, 4 and 5 of Appendix B of Technical Code A of Schedule 8.3, to broaden them to apply to inverter-based generation technologies?	At a conceptual level, Manawa agrees, however, as per our previous submission (dated 22 August 2024) grandfathering arrangements will be required for existing assets unable to achieve this requirement.
	Do you see any unintended consequences in making	As per above comment, this requirement will not work for some existing assets (see previous submission dated 22 August 2024).

	such an amendment? Please explain your answers.	
	Do you agree the proposed Code amendment is preferable to the other option identified? If you disagree, please explain why and give your preferred option in terms consistent with the Authority's main statutory objective in section 15 of the Electricity Industry Act 2010.	Yes.
	Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Yes, subject to grandfathering comments above.
FSR-005: Amend the requirement to have an excitation system	Do you support the Authority's proposal to amend the Code to replace the requirement for an excitation system with a requirement for a voltage control system, to encompass all generating technologies? Please explain your answers.	At a conceptual level, Manawa agrees, however, as per our previous submission (dated 22 August 2024) grandfathering arrangements will be required for existing assets unable to achieve this requirement.
	Do you see any unintended consequences in making such an amendment? Please explain your answers.	As per above comment, this requirement will not work for some existing assets (see previous submission dated 22 August 2024).
	Do you agree the proposed Code amendment is preferable to the other option identified? If you disagree, please explain why and give your preferred option in terms consistent with the Authority's main statutory objective in section 15 of the Electricity Industry Act 2010.	Yes.
	Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Yes, subject to grandfathering comments above.
FSR-006: Amend the Code to apply to all dynamic reactive power	Do you support the Authority's proposal to amend the Code to require all dynamic reactive power compensation devices to undergo periodic testing?	Yes, subject to a reasonable de minimis being applied. The cost of undertaking the testing on small IBRs is not justifiable.

compensation devices	Do you see any unintended consequences in making such an amendment? Please explain your answers.	Yes, additional costs for minimal benefit (particularly for small IBRs).
	Do you agree the proposed Code amendment is preferable to the other option identified? If you disagree, please explain why and give your preferred option in terms consistent with the Authority's main statutory objective in section 15 of the Electricity Industry Act 2010.	Yes.
	Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Yes, subject to a reasonable threshold being applied.
FSR-007: Treat energy storage systems as only generation for the purposes of Part 8	Do you support the Authority's proposal to amend the Code to treat ESSs as generation for the purposes of Part 8?	Yes.
	Do you see any unintended consequences in making such an amendment? Please explain your answers.	No.
	Do you agree the proposed Code amendment is preferable to the other options identified? If you disagree, please explain why and give your preferred option in terms consistent with the Authority's main statutory objective in section 15 of the Electricity Industry Act 2010	Yes.
	Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Yes.
FSR-008: Clarify the definition of generating unit	Do you support the Authority's proposal to amend the definition of generating unit in clause 1.1 of the Code so that it refers to a generating unit having a frequency and/or voltage control system?	<p>Fundamentally yes, but Manawa sees that the definition could be clearer. Clarification will be needed for example, about whether this will apply to a single generating turbine or an entire windfarm.</p> <p>However, as per above comment, this requirement will not work for some existing assets (see previous submission dated 22</p>

		August 2024). For example, asynchronous generators with no speed control or voltage control.
	Do you see any unintended consequences in making such an amendment? Please explain your answers.	Yes. See above comment.
	Do you agree the proposed Code amendment is preferable to the other option identified? If you disagree, please explain why and give your preferred option in terms consistent with the Authority's main statutory objective in section 15 of the Electricity Industry Act 2010.	No. As discussed above, further clarification is needed.
	Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	No, as above.
FSR-009: Clarify the Code's fault ride through requirements	Do you support the Authority's proposal to amend the Code to allow a machine-based synchronous generating unit to be deemed compliant with the Code's FRT requirements if full compliance is not possible due to the generating unit's inherent stability characteristics and the generator has taken all reasonable measures to support grid stability taking into account the generating unit's inherent stability characteristics?	Yes, at a conceptual level. However, again there needs to be clarification that existing generators will need to be grandfathered (see previous submission dated 22 August 2024).
	Do you see any unintended consequences in making such an amendment? Please explain your answers.	As per above comment, this requirement will not work for some existing assets (see previous submission dated 22 August 2024).
	Do you agree the proposed Code amendment is preferable to the other option identified? If you disagree, please explain why and give your preferred option in terms consistent with the Authority's main	Yes.

	statutory objective in section 15 of the Electricity Industry Act 2010	
	Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Yes, subject to our grandfathering comments above.