



12 November 2024

Electricity Authority
By email: fsr@ea.govt.nz

Part 8 Code amendment proposal – Part 1 – Consultation Paper

Meridian appreciates the opportunity to provide comment on the Electricity Authority's consultation paper on Part 8 Code amendments – Part 1. Meridian is supportive of the proposed updates to the Code and welcomes the clarity they will bring. In particular, we welcome the treatment of ESSs over 30 MW as generation. This will ensure that their full utility is available to the power system, and we hope that this change makes it easier for participants to bring this plant to market in future.

We have a minor alternative suggestion in respect of FSR-001 given that under- and over-frequency relays cannot usually be tested directly for wind generation.

This submission is not confidential and can be released in full. I can be contacted to discuss any of the points made.

Nāku noa, nā

A handwritten signature in blue ink, appearing to read "J France", enclosed in a light blue rectangular box.

James France
Legal / Regulatory Counsel

Appendix A: Responses to consultation questions

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

Consultation Question	Comment
Q1.1. 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>While Meridian supports the intent of the proposal, we note that it is not feasible to test the frequency response of wind generating units as described in cl 2 of Schedule 8.3, Technical Code A, Appendix B. The Code would require the asset owner to test over- and under-frequency relays.</p> <p>Frequency tests for trips and their time delays cannot be tested for most turbines in the same manner that a more standard protection relay can be tested because those functions are a part of the computerised wind turbine controller. There is no specific relay component which can be tested as per the wording of the Code.</p> <p>We suggest that an alternative frequency response (frequency trips) testing approach be developed and codified in respect of wind.</p>
Q1.2. Do you see any unintended consequences in making such an amendment? Please explain your answers.	Only, as above, the fact that it is not going to be possible for wind asset owners to comply with the wording of clause 2 of Schedule 8.3, Technical Code A, Appendix B.
Q1.3. 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.	Meridian agrees that the proposed Code amendment is preferable to the other option identified.
Q1.4. Do you agree with the analysis presented in this	Meridian agrees with the analysis.

Regulatory Statement? If not, why not?	
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FSR-002: Clarify that embedded generators must provide an asset capability statement in a format specified by the system operator

Consultation Question	Comment
Q2.1. Do you support the Authority's proposal to amend the Code to clarify that: (a) embedded generators must provide asset capability statement 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?	Meridian supports this proposal.
Q2.2. Do you see any unintended consequences in making such an amendment? Please explain your answers.	Meridian does not foresee unintended consequences at this stage.
Q2.3. Do you agree with the proposed Code amendment? 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	Meridian agrees with the proposed Code amendment.
Q2.4. Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Meridian agrees with the analysis.

FSR-003: Include distributors and energy storage systems as potential causers of under-frequency events

Consultation Question	Comment
Q3.1. 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?	Meridian supports this proposal.
Q3.2. Do you see any unintended consequences in making such an amendment? Please explain your answers.	Meridian does not foresee unintended consequences at this stage.
Q3.3. 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.	Meridian agrees that the proposed Code amendment is preferable to the other options identified.
Q3.4. Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Meridian agrees with the analysis.

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

Consultation Question	Comment
Q4.1. 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?	Meridian supports this proposal.
Q4.2. Do you see any unintended consequences in making such an amendment? Please explain your answers.	Meridian does not foresee unintended consequences at this stage.
Q4.3. 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.	Meridian agrees that the proposed Code amendment is preferable to the other option identified.
Q4.4. Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Meridian agrees with the analysis.

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

Consultation Question	Comment
Q5.1. 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.	Meridian supports this proposal.
Q5.2. Do you see any unintended consequences in making such an amendment? Please explain your answers.	Meridian does not foresee unintended consequences at this stage.
Q5.3. 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.	Meridian agrees that the proposed Code amendment is preferable to the other option identified.
Q5.4. Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Meridian agrees with the analysis.

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

Consultation Question	Comment
Q6.1. Do you support the Authority's proposal to amend the Code to require all dynamic reactive power compensation devices to undergo periodic testing?	Meridian supports this proposal.
Q6.2. Do you see any unintended consequences in making such an amendment? Please explain your answers.	Meridian does not foresee unintended consequences at this stage.
Q6.3. 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.	Meridian agrees that the proposed Code amendment is preferable to the other option identified.
Q6.4. Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Meridian agrees with the analysis.

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

Consultation Question	Comment
Q7.1. Do you support the Authority's proposal to amend the Code to treat ESSs as generation for the purposes of Part 8?	Meridian supports this proposal. Meridian has run into Part 8 issues in the development and commissioning of its Ruakaka BESS and the changes are welcomed.
Q7.2. Do you see any unintended consequences in making such an amendment? Please explain your answers.	Meridian does not foresee unintended consequences at this stage.
Q7.3. 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.	Meridian agrees that the proposed Code amendment is preferable to the other options identified.
Q7.4. Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Meridian agrees with the analysis.

FSR-008: Clarify the definition of generating unit

Consultation Question	Comment
Q8.1. 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?	Meridian supports this proposal.
Q8.2. Do you see any unintended consequences in making such an amendment? Please explain your answers.	Meridian does not foresee unintended consequences at this stage.
Q8.3. 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.	Meridian agrees that the proposed Code amendment is preferable to the other option identified.
Q8.4. Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Meridian agrees with the analysis.

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

Consultation Question	Comment
Q9.1. 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?	Meridian supports this proposal.
Q9.2. Do you see any unintended consequences in making such an amendment? Please explain your answers.	Meridian does not foresee unintended consequences at this stage.
Q9.3. 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.	Meridian agrees that the proposed Code amendment is preferable to the other option identified.
Q9.4. Do you agree with the analysis presented in this Regulatory Statement? If not, why not?	Meridian agrees with the analysis.