

To: Electricity Authority (EA)
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From: Electricity Engineers' Association of NZ

Date: 29 April 2026

Subject: EEA Submission – *Future Security and Resilience: Parts 1, 7 and 8 Common Quality Requirements*

OVERVIEW

The Electricity Engineers' Association (EEA) welcomes the opportunity to provide feedback on the Electricity Authority's consultation on proposed *omnibus amendments to Parts 1, 7 and 8 of the Electricity Industry Participation Code 2010*.

EEA represents distribution businesses, transmission participants, engineering practitioners, and organisations involved in the safe, reliable, and efficient operation of New Zealand's electricity system. Our mandate focuses on technical, engineering, operational, resilience, and long-term system investment matters rather than commercial market interests. Accordingly, this submission focuses on the practical engineering, operational and implementation implications of the proposed common quality amendments.

The EEA supports the Authority's broader Future Security and Resilience work programme and recognises the importance of ensuring the Code remains fit for purpose as the electricity system becomes more dynamic, distributed, and increasingly reliant on inverter-based resources, demand flexibility, and digital control systems.

Overall Position

EEA is broadly supportive of the intent of the proposed amendments where they:

- improve clarity, consistency and usability of common quality obligations
- better reflect modern technologies and operational practices
- support secure system operation and resilience
- reduce ambiguity or duplication in existing provisions
- are implemented in a practical and proportionate way
- support the System Operator in maintaining secure and resilient system operation; and
- provide certainty to industry participants while minimising unnecessary implementation burden.

We encourage the Authority to ensure:

- implementation timeframes are realistic and reflect operational lead times
- obligations are clearly defined and technically practical
- guidance is published alongside final Code amendments
- interfaces between the System Operator, Transpower, distributors and connected parties remain clear; and
- final decisions are aligned with other related regulatory and technical workstreams.

Overall, EEA is broadly supportive of the intent of the proposed amendments, subject to several practical implementation considerations outlined below.

The following comments are provided through a technical, operational and system resilience lens, consistent with EEA's mandate.

1. General comments

1.1. Support for improved clarity and consistency

EEA supports the Authority's objective of improving the coherence of common quality provisions across Parts 1, 7 and 8 of the Code. Clear, well-aligned obligations are increasingly important as:

- inverter-based resources become more prevalent
- system operating conditions become more dynamic
- network visibility and operational coordination requirements increase; and
- participants require greater certainty around compliance expectations.

In principle, EEA supports amendments that remove legacy drafting issues, modernise terminology, and better reflect current technologies and operational practices.

1.2. Importance of practical implementation

While supportive of the policy intent, EEA emphasises that implementation should be:

- proportionate to system risk
- practical and cost-effective
- clearly staged where operational changes are required; and
- supported by sufficient guidance.

Many participants will need time to review internal procedures, testing practices, operational protocols, and compliance systems. Transitional arrangements should therefore be realistic and avoid creating unnecessary compliance risk.

1.3. Need for alignment with related workstreams

EEA encourages the Authority to ensure close alignment with:

- recent March 2026 frequency and voltage Code amendments
- CACTIS implementation
- distributed energy resource integration work
- export limit / operating envelope frameworks; and
- broader future system operation work.

A coordinated implementation pathway will reduce duplication, minimise confusion, and support efficient sector delivery.

2. Key EEA positions

Consistent with our recent submissions, EEA's comments focus on how the proposed changes may affect system operability, engineering obligations, resilience outcomes, compliance practicality, and long-term infrastructure confidence.

2.1. Support amendments that improve technology neutrality

EEA supports moving away from legacy terminology or provisions that may unintentionally favour particular technologies or legacy plant types.

The Code should increasingly focus on required functional outcomes rather than technology-specific assumptions. This is important to:

- support innovation
- enable efficient uptake of new technologies
- avoid unnecessary barriers to connection; and
- maintain a level playing field.

2.2. Support clearer System Operator powers where justified

EEA supports maintaining and clarifying the System Operator's ability to take necessary actions to preserve common quality and system security.

However:

- obligations should be clearly defined
- intervention thresholds should be transparent
- information requirements should be proportionate; and
- responsibilities across Transpower, distributors, generators and connected parties should remain clear.

This is particularly important as operational interfaces become more complex.

2.3. Support removal of drafting inconsistencies and duplication

EEA supports removal of outdated, overlapping, or inconsistent drafting provisions where this improves usability and reduces ambiguity.

The Code should remain technically robust while being practical to interpret and implement.

2.4. Guidance and supporting material

EEA recommends the Authority provide:

- clear implementation guidance where wording changes may alter operational expectations
- worked examples where relevant
- clarity on transitional timing; and
- early communication with affected participants.

This will support consistent interpretation and avoid unintended compliance issues.

Responses to Consultation Questions

The EEA's responses below are provided through a technical, engineering, system operations, and resilience lens, consistent with our mandate. Overall, EEA is broadly supportive of the Authority's omnibus common quality Code amendment proposals, subject to practical implementation and clear supporting guidance.

FSR-101: Align over-frequency limits between the Code and the Policy Statement

Q1. Do you agree the proposed amendments improve clarity and consistency of common quality requirements?

Overall, yes. EEA supports amendments that improve clarity, remove ambiguity, and modernise Code provisions where they better reflect current technologies, operating practices, and system needs.

From a technical and operational perspective, clear and consistent common quality obligations are increasingly important as:

- inverter-based resources become more prevalent
- DER and flexible demand participation increases
- system conditions become more dynamic; and
- operational coordination across transmission, distribution and connected parties becomes more complex.

Greater clarity in Code obligations helps reduce compliance uncertainty, improve operational consistency, and support more efficient planning and system management.

Q2. Do you agree with the analysis presented in this Regulatory Statement?

Yes, broadly. EEA agrees the costs are likely to be negligible, as the proposal largely codifies existing operational practice.

We agree the key benefit is improved clarity and transparency. We also note this amendment provides useful alignment between system operational standards and participant obligations, which supports better operational preparedness.

FSR-102: Clarify requirements for voltage control systems and connection transformers

Q3. Do you agree the proposed Code amendment will achieve the Yes. EEA supports this clarification?

The proposed amendment appropriately reflects how many modern transmission-connected generating stations are designed and operated, particularly wind, solar and hybrid generation stations.

The amendment will:

- improve clarity for developers and the System Operator
- avoid unnecessary compliance costs
- better reflect station-level design and control arrangements; and
- support efficient connection processes.

This is a pragmatic and technology-neutral clarification.

Q4. Do you agree with the analysis presented in this Regulatory Statement?

Yes. EEA agrees the proposal is primarily a clarification and is unlikely to impose material incremental cost. We support the Authority's view that removing ambiguity will reduce transaction costs and connection certainty.

FSR-103: Amend fast instantaneous reserve and sustained instantaneous reserve definitions

Q5. Do you agree the proposed Code amendment will achieve the objective?

Yes, in principle. EEA supports improving clarity around instantaneous reserve definitions and removing ambiguity between the Code and Procurement Plan.

As system flexibility and inverter-based resources increase, clarity around reserve performance obligations is increasingly important.

However, EEA emphasises that:

- Procurement Plan updates should occur before Code amendments take effect
- performance requirements must remain clear, transparent and accessible to participants; and
- implementation should avoid any unintended uncertainty for existing reserve providers.

Subject to these implementation points, EEA supports the proposal.

Q6. Do you agree with the analysis presented in this Regulatory Statement?

Broadly yes. EEA agrees clarification should reduce ambiguity and transaction costs.

However, the practical transition to updated Procurement Plan provisions will be important. Industry should have sufficient notice and opportunity to review any revised technical requirements.

FSR-104: Revise two fault ride through exclusions

Q7. Do you agree the proposed Code amendment will achieve the objective?

Yes. EEA supports technology-neutral treatment of variable and intermittent generation in relation to fault ride through obligations.

The current wind-only exclusion is increasingly difficult to justify given the growing role of solar PV, batteries and hybrid systems. A more technology-neutral approach is appropriate and better aligned with future system needs.

EEA supports the proposal where:

- equivalent technologies facing similar technical constraints are treated consistently; and
- obligations remain proportionate and practical.

Q8. Do you agree with the analysis presented in this Regulatory Statement?

Broadly yes. EEA agrees the proposal should improve competitive neutrality and reduce unintended distortions. We encourage the Authority to ensure technical guidance clearly defines eligible circumstances for exclusions to support consistent application.

FSR-105: Clarify who provides information to assess compliance with fault ride through obligations

Q9. Do you agree the proposed Code amendment will achieve the objective?

Yes. EEA supports updating the Code to reflect actual operational practice.

Aligning the Code with the existing role of the System Operator in providing network models is sensible and should improve clarity, efficiency and consistency in compliance assessments.

This proposal should:

- better reflect real-world compliance processes
- reduce confusion about roles and responsibilities; and
- improve efficiency for generators and the System Operator.

Q10. Do you agree with the analysis presented in this Regulatory Statement?

Yes. EEA agrees this is a practical clarification that should improve efficiency with minimal cost.

We support ensuring that model provision processes remain timely and transparent to avoid unnecessary project delays.

FSR-106: Clarify obligations related to frequency management and frequency support

Q11. Do you agree the proposed Code amendment will achieve the objective?

Yes, broadly. EEA supports improving clarity and consistency regarding which assets are excluded from obligations to support frequency management and under-frequency events.

Clear obligations are important as the system evolves and new technologies participate in system services.

The proposal should:

- improve certainty for participants
- reduce ambiguity at system interfaces; and
- support more consistent operational expectations.

EEA encourages the Authority to ensure final drafting remains technology-neutral and avoids unintended barriers to participation by emerging flexible resources.

Q12. Do you agree with the analysis presented in this Regulatory Statement?

Broadly yes. EEA agrees greater clarity should improve efficient operation and reliable supply.

We encourage practical implementation guidance and targeted engagement with affected participants to ensure consistent interpretation.

3. Specific recommendations

EEA recommends that the Authority:

1. Proceed with the proposed omnibus amendments in principle.
2. Ensure all final drafting remains practical, proportionate, and technology-neutral.
3. Sequence implementation appropriately where supporting documents (such as the Procurement Plan) require updates.
4. Provide clear guidance and worked examples where obligations or exclusions may be interpreted differently.
5. Continue engagement with EEA and technical stakeholders during finalisation and implementation.

4. Closing comments

EEA appreciates the Authority's continued proactive work under the Future Security and Resilience programme. Overall, the proposed amendments are sensible and pragmatic improvements that should help strengthen clarity, consistency, and system resilience as New Zealand's electricity system evolves.

EEA supports the overall direction of travel and would welcome ongoing engagement on final drafting and implementation.

EEA appreciates the Authority's continued engagement with industry on future security and resilience issues. These proposed amendments are an important step in modernising common quality settings to better support a secure, resilient, and increasingly dynamic electricity system.

EEA would welcome the opportunity to discuss this submission further and support implementation as required.

Contact

The EEA's contact person for this submission is Dennis Wang, Programme coordinator & Insights analyst

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