9 July 2025

Electricity Authority
PO Box 10041
Wellington 6143

Via email: fsr@ea.govt.nz

Consultation Paper – Promoting reliable electricity supply – a voltage-related Code amendment proposal

The WEL Networks appreciates the opportunity to provide feedback on the proposed voltage code amendments.

WEL Networks (WEL) is New Zealand's sixth largest electricity distribution company and is 100% owned by our community through our sole shareholder WEL Energy Trust. Our guiding statement of strategic intent is to be leading Waikato's energy future, and we work to ensure that our customers have access to reliable, affordable, and environmentally sustainable energy.

WEL is generally supportive of the proposed code amendment for fault ride-through obligations, however we have concerns about the lack of rigour in the cost-benefit analysis in the code amendment proposal. The costs and benefits are not quantified and as such the final conclusion that the proposals have a net benefit is quite subjective.

WEL Networks also supports Newpower's submission in response to this proposed code amendment.

Our responses to the specific questions sought by the Authority are attached and should you require clarification on any part of this submission, please do not hesitate to contact me.

Yours sincerely

Andrew Maseyk
Regulatory Specialist
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Submitter	WEL Networks

Questions	Comments
Q1. Do you agree the issues identified by the Authority are worthy of attention?	Yes.
Q2. Do you agree with the objective of the proposed amendment? If not, why not?	No. Economic efficiency considerations such as barriers to entry should also be considered.
Q3. Do you agree we have correctly identified the benefits and costs of the proposed amendment?	Yes.
Q4. Do you agree the benefits of the proposed amendment outweigh its costs?	It is hard to say at this stage as the costs and benefits have not been sufficiently quantified. It has not been demonstrated that mandating default reactive power requirements of 33% of the maximum continuous MW output power of the generating station is optimal for voltage management on distribution networks or in terms of equipment capability reactive capability.
Q5. Do you agree the proposed amendment is preferable to other options? If you disagree, please explain your preferred option in terms consistent with the Authority's statutory objective in section 15 of the Electricity Industry Act 2010	In regards to the voltage support obligation, no. The status quo option is likely to be superior. In practice, distributors will likely place higher reactive power capability requirements on embedded generation above 10 MW. The placement higher requirements effectively nullifies the code amendment. In respect of the fault ride through obligation, yes
Q6. Do you agree the proposed amendment complies with sections 17(1) and 32(1) of the Act?	Yes.

Q7. Do you have any comments on the drafting of the proposed amendment?	1. The maximum export definition refers to generating plant yet the AOPOs refers to the maximum export of a generation station. WEL suggests that these definitions should be aligned or linked. For avoidance of doubt, there should be clarity around how the maximum export power for generation stations with multiple generation plant should be calculated. It is not simply the summation of all nameplate ratings as there can be material losses between the generating plant and the point of connection. We would also like to highlight that the "nameplate" rating of intermittent generation is subjective. We suggest the following changes to the definition of 'maximum export power' to cover the issues raised above: *maximum export power means, in respect of a generating plant, the lesser of—* *(a) the design maximum power that can be exported at the point of connection; or* *(b) the power export limit which applies to at least a full trading period imposed by an active power export control device under normal system conditions.* 2. The change to **8.21 Excluded generating stations** proposed in in this consultation is different to that proposed in the Frequency-related Code amendment proposals consultation paper. The frequency related code amendment has the definition for an excluded generation station as "...means a **generating station** that has a **maximum export power** of less than *10 MW*...". Whereas the voltage related code amendment has the definition for an excluded generation station as "...means a **generating station** that has a **maximum export power** of less than *30 MW*...".

	Clarity is required as to the intended situation with regard to the threshold (30 MW or 10 MW). 3. Technical Code 5 (2C) requires that embedded generating units in respective of reactive power "...is at all times capable...". WEL considers this requirement should only apply under normal operation not during momentary fluctuations which the term 'at all times' seems to capture. Additionally the Technical Code should specify over what voltage operating range at the point of connection the DG is expected to meet the reactive power requirement, such as in clause 8.23 (a) "...when the voltage at its grid injection point is within the applicable range of nominal voltage....".