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Electricity Authority
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Wellington 6143

Via email: fsr@ea.govt.nz

Feedback – A regulatory roadmap for battery energy storage systems

The WEL Networks appreciates the opportunity to provide feedback on Battery Energy Storage Systems (BESS) road map.

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 supports the general direction outlined in the road map and offer the following considerations to enhance effectiveness and equitable market participation.

A. Entity classification and market access.
We recommend that BESS classified as separate entity from generator or consumer given their unique characteristics. A new 'Trading Only' ICP type could be applied to BESS connections that would provide the ability for BESS operators to engage with the electricity markets and end consumers without the need for a retailer.

B. Data Visibility
Connection of BESS to distribution networks appears to be where most benefit across multiple areas will be realised. To allow EDBs to be able to make the most of connected BESS they will need access to consistent and reliable energy data. Mechanisms for the provision of this data should be included in any roadmap developments.

C. System Stability
Inverter technology will be a key factor in the uptake of BESS. Increasing penetration of inverter based systems means that there needs to be a focus on both grid-forming and grid-following technologies. This is especially important if BESS are to provide system support functions such as inertia and also the ability to operate in islanded mode.

D. AUFLS obligations
There is a disparity in the provision of AUFLS between grid connected and distribution network connected energy storage systems (ESS). Grid connected ESS above the size threshold in 8.21 (1) are not considered connected asset owners and therefore do not have to provide AUFLS when charging, with the system operator procuring the additional reserves required and the costs recovered from generators. Whereas for ESS embedded in a distribution network the provision of AUFLS will need to be accounted for by the

distributor and are likely to offset by the distributor placing either operational or financial obligations on the ESS operator which creates a competitive advantage for grid connected ESS. WEL suggest that work needs to be included in the roadmap to address the disparity.

E. Cost Benefit analysis

WEL is concerned many code amendment proposals have cost-benefit analyses without quantifiable costs and benefits. WEL believes that costs and benefits should be quantified as early as possible in the code amendment process. The quantification of costs and benefits helps in the prioritisation of workstreams and provides greater confidence that any code amendment proposal will deliver good net benefit.

Should you require clarification on any part of this feedback, please do not hesitate to contact me.

Yours sincerely

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