Submissions Electricity Authority PO Box 10041 Wellington 6143

Email to: battery@ea.govt.nz

5 May 2021

Subject: Consultation Paper - Battery energy storage systems offering instantaneous reserve

I welcome the opportunity to provide a submission to the Electricity Authority ("Authority") on the consultation paper "Battery energy storage systems offering instantaneous reserve" dated 8th April 2021.

I note the paper is focused on Grid Scale BESS and I am strongly in favour of the proposal to enable BESS to provide short-term, instantaneous reserve to support power system stability.

I further note the Authority recognises that further development work is required to enable a wider range of services that can be provided by BESS in addition to reserves eg voltage support, frequency keeping, deferral/avoidance or mitigation of the upgrade cost of distribution/transmission infrastructure.

The benefits to development of energy storage system capability at the distribution and residential level in New Zealand has been well established in several industry studies.¹

I encourage the Authority to accelerate the workstream to monitise the value of BESS applications at all levels in the power system, from the grid to distribution networks, and embedded within consumer premises.

I would further submit that the Authority take a technology indifferent stance when defining what might constitute an energy storage system, batteries are but one form of energy storage. I recommend the Authority focus on the function and capability vs inputs and open the door to future proof the Code to make it easy to introduce new technologies as they are proven.

I look forward to the timely development of suitable procurement arrangements, including the proposed roadmap and timeline to develop the required operational protocols and inverter performance standards, specific to energy storage systems

¹ Transpowers 2017 https://www.transpower.co.nz/resources/battery-storage-new-zealand 2019 Update: https://www.transpower.co.nz/news/exploring-battery-storage-enable-new-zealand's-energy-future

that may provide instantaneous reserves and other ancillary services on an aggregated or smaller scale than contemplated in the current consultation paper.

Yours sincerely

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