
Battery energy storage systems (BESS) feedback

From Oliver Jordan [REDACTED]

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To EA – Future Security and Resilience <fsr@ea.govt.nz>

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Dear Electricity Authority Team,

NZ Clean Energy (NZCE) welcomes the opportunity to provide feedback on the proposed changes to the Battery Energy Storage Systems (BESS) market framework as outlined in the June 2025 regulatory roadmap.

As a developer of utility-scale solar and BESS projects across New Zealand, we commend the Authority's efforts to modernise the electricity market and support the integration of emerging technologies. We particularly support initiatives that simplify market participation, reform transmission pricing, and introduce standardised flexibility products. However, based on our experience and comparative analysis of international BESS markets, we believe there are additional opportunities to enhance the regulatory framework and unlock further value for consumers and investors.

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Many private developers such as NZCE are anticipating changes in the NZ market to enable more revenue streams from BESS, this is evidenced in the amount of new generation projects on the Transpower pipeline that have a BESS to accompany the wind or solar generation. However, if the status quo remains we believe these new generation projects will potentially be initially built without the BESS. We believe widespread BESS adoption -to complement the renewable energy build out- would be hugely beneficial to the energy security of NZ, reducing the likelihood of large wholesale price swings and adding significant resilience to the system as a whole.

We respectfully submit the following recommendations for consideration:

1. Introduce a Balancing Mechanism

Markets such as the UK and Germany allow BESS assets to participate in real-time balancing services, providing dispatchable flexibility to system operators. A similar mechanism in New Zealand would:

- Improve system reliability.
- Create a new revenue stream for BESS operators.
- Enhance responsiveness during peak demand or renewable intermittency.

2. Develop a Capacity Market

Capacity remuneration mechanisms in the UK and Italy offer long-term contracts for availability during peak periods. Establishing a capacity market in New Zealand would:

- Provide revenue certainty for BESS investments.

- Support grid reliability during seasonal stress events.
- Encourage private sector investment in flexible capacity.

3. Enable Negative Price Arbitrage

In high-renewable penetration markets like Germany and Australia, negative pricing events allow BESS operators to profit from charging during surplus generation. We recommend:

- Reviewing market design to allow for negative pricing signals.
- Aligning dispatch incentives with system needs during oversupply.

4. Support Tolling Agreements and Commercial Flexibility Models

Tolling arrangements, common in the UK, allow third-party operators to lease BESS capacity. Enabling such models in New Zealand would:

- Diversify commercial structures.
- Lower barriers for market entry.
- Promote innovation in energy services.

5. Expand Ancillary Services Participation

We support the Authority's proposal to allow BESS participation in the multiple provider frequency keeping market. We further recommend:

- Developing multi-tier ancillary service markets (e.g., fast frequency response, voltage control).
- Creating transparent procurement pathways for BESS-based services.

6. Incentivise Grid-Forming Technologies

Australia's funding for grid-forming inverters has accelerated deployment of advanced BESS systems. We encourage:

- Establishing incentives or co-investment schemes for grid-forming BESS.
- Recognising their role in system strength and islanding capabilities.

We appreciate the Authority's commitment to a competitive, reliable, and innovative electricity market. NZ Clean Energy is keen to collaborate further and contribute to the successful implementation of these reforms.

Please do not hesitate to contact us should you require clarification or further input.

Regards,

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