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Submissions Electricity Authority Level 7, AON Centre 1 Willis Street Wellington 6011

Via email: OperationsConsult@ea.govt.nz

ERGANZ SUBMISSION ON WHOLESALE MARKET ARRANGEMENTS FOR BESS

The Electricity Retailers' and Generators' Association of New Zealand ('ERGANZ') welcomes the opportunity to provide feedback on the Electricity Authority's Issues and options paper, 'Wholesale market arrangements for batter energy storage systems' from 11 November 2025.

ERGANZ is the industry association representing companies that sell electricity to Kiwi households and businesses. Collectively, our members supply almost 90 per cent of New Zealand's electricity. We work for a competitive, fair, and sustainable electricity market that benefits consumers.

Executive summary

ERGANZ welcomes the Authority's focus on market arrangements for Battery Energy Storage Systems (BESS) and the wider roadmap consulted on earlier this year. Our members have a growing pipeline of BESS projects either currently in operation, under construction, or in the planning and development phase. Fit-for-purpose regulation of grid scale battery technologies represents one of the most significant and immediate opportunities to improve energy affordability and security, and our members support practical measures that maximise the value of BESS for consumers.

An appropriate, tailored framework for BESS has significant potential to firm renewable generation, while addressing demand in super-peaks with less reliance on thermal fuel. The energy arbitrage opportunities of BESS technologies – charging when energy costs are lowest and discharging at times of energy scarcity – have clear benefits for consumers, but only if market settings maximise efficiency. Appropriate settings for BESS technologies will support greater renewable investment by smoothing out the variability of intermittent generation. The well publicised shortage of natural gas for firming increases the urgency of these reforms.

In fact, ERGANZ urges the Authority to move faster, and work more closely with industry, on grid-scale battery reforms. This is one of the Authority's most important workstreams, with the potential to vastly improve the volume of super-peak hedging and the firming of renewable energy, as well as a number of ancillary benefits to system security. In recent submissions we have highlighted the congested nature of the Authority's work programme and emphasised the need to focus on issues

with the clearest demonstrable benefits for consumers. While we question whether other initiatives meet this threshold, optimising the utility of battery technologies is one such area that should be prioritised.

To that end, we encourage the Authority to adopt a collaborative approach, alongside industry, to codesign rules for battery energy systems, through workshops or working groups. Members also see a strong case to accelerate work towards other BESS initiatives, such as rules for co-located hybrid systems with intermittent generation and battery storage, five-minute settlement, and a capability market for control response. A more collaborative approach to these issues and solutions would provide the most efficient and effective regulatory reforms.

Submission points

Issue 1 – Dispatch requirements for BESS while charging

ERGANZ supports the Authority's proposal to make BESS dispatchable while charging. Keeping batteries dispatchable while charging reflects their unique capabilities and provides the System Operator and the market with greater flexibility. Unlike many other types of load, batteries can rapidly reduce consumption or switch from charging to discharging when required. Allowing that flexibility to be used through dispatch improves the ability of the system to respond to changing conditions in real time.

Issue 3 – Gate closure and state of charge constraints

ERGANZ supports measures to recognise the unique characteristics of BESS and improve flexibility of wholesale trading. However, we are concerned the Authority's preferred option does not maximise battery technology flexibility and risks sustaining inefficiencies, with flow-on effects for consumer pricing. In particular, the proposal for one-hour gate closure is not reflective of battery technology's potential.

A core value of grid-scale batteries is their responsiveness. Batteries can react quickly to new information — for example, sudden changes in demand, unexpected changes in renewable output, or changes in system conditions. A one-hour gate closure reduces the ability of batteries to respond to updated information through the market. In practice, this can have several negative effects for the energy system:

- it can lead to more conservative positions than would otherwise be necessary, meaning flexibility is held back rather than offered into the market; and
- it can reduce the accuracy and efficiency of price formation, because prices are being set with less up-to-date information about flexible capability

Less responsive bidding and offering inevitably makes the market less able to reflect real-time conditions and increases the likelihood that higher-cost options must be relied on to manage short-run peaks and system tightness.

ERGANZ's view is that this disadvantages consumers by reducing market efficiency and limiting the ability of batteries to do what they are designed to do — respond quickly and efficiently to changing conditions.

One-hour gate closure also fails to account for the short-term capacity of BESS systems. As the Authority notes in its own example, a typical BESS has an energy capacity (in MWh) that is roughly double its power capacity (in MW). This means the hour between gate closure and dispatch can see a typical state of charge vary by 50%. While ERGANZ acknowledges state of charge constraints could help reduce schedule uncertainty for the System Operator, this does not address price inefficiency. We submit that a shorter gate closure is appropriate and should be explored.

The Authority's Appendix D analysis appears to acknowledge benefits of 30-minute gate closure

ERGANZ recognises the Authority's interest in ensuring gate closure settings support system security. However, the Authority's own analysis in Appendix D appears to acknowledge the benefits of a 30-minute gate closure, particularly in terms of more accurate forecasting and improved battery outcomes under shorter gate closure settings.

In our view, this supports the case for the Authority to more seriously consider reduced gate closure settings for BESS, rather than defaulting to a one-hour arrangement that is inherently less aligned with the operational value batteries provide.

Addressing the Authority's concerns about gaming opportunities

ERGANZ recognises the Authority has raised concerns about potential gaming risks under reduced gate closure settings, particularly while BESS penetration is low. However, we submit that competitive dynamics will change materially as BESS penetration increases. As more batteries enter the market, competition between BESS operators will constrain the ability of any single participant to influence prices or outcomes.

Moreover, the efficiency and flexibility of BESS should not be treated as a "perverse" market outcome. It is an appropriate effect of innovation. The market should evolve to accommodate technologies that can provide more responsive, lower-cost flexibility. If market settings are designed well, these capabilities will drive better outcomes for consumers and incentivise greater investment in grid-scale batteries, deepening competition and further improving efficiency.

Recommendation: develop a roadmap to reduce gate closure for BESS

For these reasons, ERGANZ recommends a reduced gate closure for BESS, beginning with a 30-minute gate closure, before assessing whether this can be further reduced over time. This approach aligns better with the fundamental characteristics of battery storage and would enable more flexibility to be reflected in dispatch outcomes and pricing. It would also provide a pathway to progressively improving market arrangements as experience grows and BESS penetration increases.

Other measures to support the operation of BESS

While ERGANZ acknowledges the measures below are out of scope of this issues and options paper, we submit a number of other initiatives would support optimal use of BESS and deliver significant benefits for the energy system. In particular:

- **5-minute settlement**: Shorter settlement intervals make price signals more accurate and timely, which helps the market reward the fast flexibility that battery technologies are built to deliver
- **Settings for hybrid/co-located systems:** Ensures dispatch rules reflect how integrated sites with intermittent generation and battery storage actually operate. This can reduce unnecessary curtailment and make firming of renewables cheaper and more effective
- Investigate a capability market for control response: Would create clear competitive incentives to reward the fast, reliable system-stability services batteries can provide

As noted, ERGANZ members would value the opportunity to collaborate more closely with the Authority to co-design these and other measures that maximise the utility of BESS.

Conclusion

ERGANZ members support fit-for-purpose rules that maximise the benefits of grid-scale batteries, and support the Authority's direction of travel. This workstream is of critical importance to the future efficiency of the wholesale market and to consumer outcomes, particularly firming of renewables and super-peak costs. ERGANZ urges the Authority to prioritise these initiatives and collaborate with industry on the capabilities, opportunities and unique characteristics of BESS. We also encourage the Authority to accelerate related reforms.

ERGANZ would like to thank the Authority for considering our submission.

If there are any outstanding questions or a need for further comments, please let me know.

Yours sincerely,

Kenny Clark
Policy Consultant