

30 June 2026

Electricity Authority

By email: OperationsConsult@ea.govt.nz



Wholesale market arrangements for battery energy storage systems

Dear Operations team,

Haast Energy Trading Limited welcomes the opportunity to comment on the Electricity Authority's proposed Code amendments for wholesale market arrangements for utility-scale battery energy storage systems (BESS).

Haast supports the Authority's overall direction. BESS can improve system flexibility, reserve capability, price discovery and resilience as New Zealand's generation mix becomes more variable. The value of the reforms will depend on whether the final market arrangements are participant-neutral, transparent and workable for both asset owners and non-asset-owning market participants who rely on dispatch, price and reserve information to manage risk.

Haast's interest is as an active wholesale-market, hedge-market, FTR and risk-management participant. Our submission is therefore focused on dispatch transparency, market information, efficient risk transfer and implementation details that may affect prices, reserves, hedge valuation and FTR analysis.

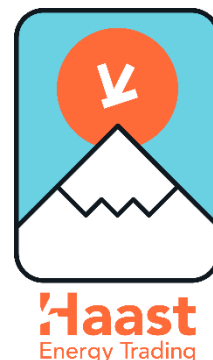
Executive summary

- 1 Haast supports requiring utility-scale BESS to be dispatchable while charging, provided the rights, obligations and compensation treatment remain participant-neutral.
- 2 Haast supports a single BESS bid/offer framework for energy, and supports separate sections and pricing for generation reserve and interruptible-load reserve where those operating modes have different dispatch and price consequences.
- 3 State-of-charge constraints are the right long-term mechanism for feasible full-capacity participation, but the Authority should publish the SPD/vSPD formulations, input data and telemetry treatment needed for participants to reproduce and risk-manage dispatch outcomes.
- 4 The interim ability to update quantities after gate closure should be limited to genuine capability and feasibility changes, with prices locked, so it does not become a strategic rebidding route.
- 5 The Authority should investigate shorter BESS gate closure, but any BESS-specific advantage should be trial-based, transparent and protected against portfolio-level market-power risks.
- 6 The Authority should clarify how trading conduct monitoring will apply to BESS energy offers, reserve offers, state-of-charge constraints and post-gate-closure revisions, including at portfolio level.
- 7 Haast agrees with the Authority's current view that five-minute settlement is not justified now, but the issue should remain under evidence-based review as BESS, intermittent generation and short-duration volatility develop.

Dispatchable charging

Haast supports requiring utility-scale BESS to be dispatchable while charging. A BESS is controllable in both charging and discharging modes. Treating only the generation side as dispatchable risks inefficient scheduling, weaker System Operator visibility of flexible load and inconsistent price formation.

The Code drafting should preserve participant-neutral treatment. If a BESS is required to be dispatchable while charging, the resulting obligations should be coherent with the treatment of other dispatchable load, generation



and reserve providers. Haast supports the Authority's decision not to remove existing financial compensation arrangements for BESS at this stage. Any broader review of compensation for flexible plant should be technology-neutral rather than targeted at BESS alone.

Bid, offer and reserve forms

Haast supports moving to a single BESS bid and offer framework for energy where that helps SPD and participant systems represent the asset cleanly. The form should still preserve clear information about whether the BESS is charging, discharging, constrained by state of charge or providing reserve.

Haast also supports separate sections for generation reserve and interruptible-load reserve. A BESS can provide reserve through materially different operating modes. Conflating those products could distort reserve dispatch, reserve pricing or the interpretation of available capability.

The Authority should ensure that published market data and vSPD inputs make BESS offers, reserve capability, dispatch instructions and constrained outcomes clear to all participants. This matters for trading, hedging, FTR valuation and ex-post reconciliation of dispatch outcomes.

State-of-charge constraints and full-capacity trading

Haast supports state-of-charge constraints as the preferred long-term mechanism for allowing full-capacity BESS trading while preserving dispatch feasibility.

The critical implementation point is transparency. State-of-charge constraints can affect dispatch, reserve availability, prices and possibly FTR and hedge-market outcomes. Participants should be able to understand how SPD and vSPD use:

- telemetered state of charge;
- submitted state-of-charge minimums and maximums;
- charging and discharging efficiency assumptions;
- parasitic-load assumptions;
- reserve commitments, including sustained instantaneous reserve;
- constraint formulations used in SPD and vSPD; and
- post-gate-closure quantity revisions.

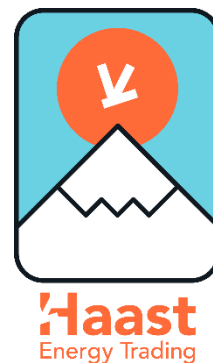
Haast recommends that the Authority publish enough information for participants to model BESS constraints in vSPD and in ordinary trading-risk tools. A constraint may be efficient inside SPD, but if the drivers are opaque outside SPD it will still create avoidable risk premia and reduce confidence in price outcomes.

Gate closure and interim quantity revisions

Haast supports the interim ability for BESS owners to revise quantities after gate closure where expected capability changes, provided prices remain locked and the permission is limited to genuine feasibility and capability changes.

This should reduce inefficient conservative trading without opening a back door to strategic rebidding. The Authority should monitor the use of the interim permission and publish enough aggregate information to give market participants confidence that it is being used for capability reasons rather than commercial re-optimisation after gate closure.

Haast also supports the Authority's proposal to accelerate work on reducing the gate closure period for BESS. A one-hour gate closure is a conservative starting point. BESS capability, opportunity cost and system value can move quickly. If a shorter gate-closure period can be trialled safely, the Authority should trial it and publish the evidence.



However, a permanent BESS-only gate-closure advantage should not be introduced lightly. It could give a portfolio with generation, load, reserve capability or hedge positions asymmetric optionality, allowing the participant to use late BESS revisions to optimise a broader book after other participants are locked.

If the Authority proceeds with BESS-specific reduced gate closure, Haast recommends safeguards: the arrangement should be trial-based, transparent, limited to genuine capability, state-of-charge or feasibility changes where appropriate, and monitored at portfolio level rather than only at individual asset level. The Authority should also consider whether a technology-neutral shorter gate-closure pathway is feasible over time.

Trading conduct and portfolio monitoring

The BESS reforms should also be assessed through the trading conduct regime. The trading conduct rule is an important market-power backstop, but BESS offers and reserve offers may reflect dynamic factors that are harder for other participants to observe, including state of charge, reserve commitments, charging or discharging mode, efficiency assumptions and the opportunity cost of stored energy.

That does not mean BESS should be constrained to a static operating model. It does mean the Authority should make clear how trading conduct monitoring will distinguish genuine capability or feasibility changes from strategic behaviour, particularly where a BESS sits inside a broader portfolio with generation, load, reserve capability, hedge positions, FTRs or other exposures.

Haast recommends that the Authority confirm how BESS bids, offers, reserve offers, state-of-charge constraints and post-gate-closure quantity revisions will be monitored under the trading conduct framework. The supporting data should be sufficient for the Authority and market participants to identify whether price-affecting BESS behaviour is driven by physical feasibility and opportunity cost, or by portfolio-level exercise of market power.

Five-minute settlement

Haast agrees with the Authority's current view that a move to five-minute settlement does not appear justified at this stage.

The Australian experience is useful, but New Zealand's market design, hydro flexibility, gate closure settings, trading conduct rules and observed five-minute volatility are materially different. Full five-minute settlement would impose significant system, metering, reconciliation, clearing and participant costs. The case should be made only if the expected consumer and market-efficiency benefits are clear.

The Authority should keep the issue under evidence-based review. BESS uptake, intermittent generation, reserve-market design and intra-trading-period volatility may change the balance over time. In the meantime, the more proportionate path is to implement the targeted BESS reforms, improve SPD/vSPD transparency, investigate shorter gate closure and ensure ancillary-service settings allow BESS capability to compete efficiently.

Recommendations

- 1 Proceed with dispatchable charging for utility-scale BESS, with participant-neutral rights, obligations and compensation treatment.
- 2 Proceed with BESS bid, offer and reserve-form changes, while preserving separate and transparent treatment for materially different reserve operating modes.
- 3 Implement state-of-charge constraints, but publish the formulations, inputs, telemetry treatment and vSPD/SPD data needed for participants to reproduce outcomes.
- 4 Treat post-gate-closure quantity revision rights as a limited interim feasibility tool, not a general rebidding permission.
- 5 Investigate reduced BESS gate closure, but make any BESS-specific advantage trial-based, transparent and subject to safeguards against portfolio-level market-power use.

- 6 Clarify how BESS energy offers, reserve offers, state-of-charge constraints and post-gate-closure quantity revisions will be monitored under the trading conduct framework, including at portfolio level.
- 7 Defer five-minute settlement for now, while maintaining the evidence base needed to revisit the issue if market conditions change.



Closing

Haast supports the Authority's BESS wholesale-market work programme. The reforms should help batteries contribute to flexibility, resilience and efficient price formation if the

implementation detail is transparent and participant-neutral.

We would be happy to discuss any of these points with the Authority.

Yours sincerely,

Phillip Anderson
Haast Energy Trading Limited