

20 August 2025

System Operator Transpower

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Kia ora koutou

RE: Cross submission: Evolving market resource co-ordination: Tie-breaker provisions

Eastland Generation Limited (Eastland) appreciates the opportunity to make this cross-submission on the System Operator's proposals to introduce a tie-breaker rule in SPD.

Eastland's entire dispatchable generation is geothermal - three operating generation plant totalling 66MW plus our 49MW TOPP2 geothermal plant due to be fully operational in late 2025 - all located in Kawerau, Bay of Plenty.

Eastland strongly supports Ngawha's submission – that the physical operation of geothermal generation plant means it should not be 'constrained off' in a tie breaker event. "Geothermal plants are relatively inflexible generation assets and are designed to operate continuously at consistent generation. Therefore, changing the output frequently or below the minimum operating level is not good industry practice."

Mercury also highlights this issue in their submission – expecting the System Operator will take into account generation technology before applying a tie-breaker rule: "There are, however, limitations to a simple application of a solution that allocates dispatch at a given pricing node in proportion to offered quantities. In particular, we note the System Operator will still need to apply discretion where scaling an offer at a node is not feasible, such as in the case of geothermal generation plant".² [emphasis added]

Genesis also submit the System Operator should be exploring additional options to supplement its preferred proportional dispatch option. This includes "Recognition of technology-specific response capabilities: different technologies have varying capabilities to respond, which should be factored into dispatch decisions".³

The System Operator's consultation paper even notes that geothermal generation plant is relatively inflexible: "It also may cause considerable operational difficulty for generators themselves, especially relatively inflexible "must-run" renewable plant like geothermal ..." ⁴

Eastland submits the System Operator's preferred tie-breaker solution is not feasible, has costly operational implications for geothermal plant, and an unintended consequence of raising the cost of energy for all New Zealanders.

Eastland suggests the only solution that makes sense and takes into account the cost of generating electricity (incurred by generation owners and ultimately end consumers) as well as the requirement on the

¹ Ngawha **submission** answer to Q2, page 2

² Mercury <u>submission</u> page 1

³ Genesis <u>submission</u> answer to Q2, page 2

⁴ System Operator <u>consultation paper</u> paragraph 28, page 8

System Operator to meet its Principal Performance Obligations (PPOs) is option 5 - prioritising different types of generation.

The System Operator acknowledges this approach can support more efficient dispatch outcomes as well as "prioritising geothermal generation over intermittent sources due to its contribution to system inertia and generation certainty".⁵

The System Operator discounts this option because "Its implementation would require complementary solutions, introducing additional complexity into the SPD solution". In Eastland's view these implementation issues are far outweighed by the efficient dispatch outcomes and good industry practice operation of inflexible geothermal generation plant. Option 1 is Eastland's preferred second step in this tiebreaker arrangement.

The System Operator has set a precedent for this approach. Ngawha's submission notes that on "30 January 2025, the System Operator issued an Upcoming THI_WKM Planned Outage Plan and a Customer Advice Notice—New Permanent Market Nodes. This plan contained a high-level constraining off generation order", - which had geothermal last. "The SO issued a CAN with new permanent market node constraints to prevent geothermal generation from being dispatched below their minimum safe operating levels during periods of zero pricing." ⁶

Eastland strongly submits that tie-breakers should be resolved on fuel type, favouring must run baseload over intermittent generation. Generation curtailment should occur in the following order:

- 1. Battery
- 2. Wind
- 3. Solar
- 4. Hydro
- 5. Geothermal, ie curtailed last

Adopting a clear rule relating to the hierarchy of generation technology provides all participants with a certain, consistent, efficient and predictable dispatch outcome and does not undermine investor confidence. If a new wind farm is dispatched at a pricing node that has geothermal also dispatched it will be clear that the geothermal plant will be constrained off / curtailed last.

Further work required

The consultation paper notes the Dispatch Objective is "subject to the offered capacity of the transmission grid and dispatched resources, achieving the Principal Performance Obligations...". The System Operator is managing its problems by reducing the economic return available for generators by constraining off / curtailing generation output. Maybe a solution is for the System Operator to pre-contract with generators who are interested to reduce output in a tie-breaker situation.

Other submitters have highlighted the need for further work as intermittent fuel is increasing used to generate electricity. Eastland strongly supports submissions by:

• Genesis: "... it will only provide a partial solution and does not address broader issues with current market design. We therefore support the System Operator (working with the Electricity Authority as needed) considering broader issues with market design to address issues from oversupply of must-run generation"

⁷ System Operator <u>consultation paper</u> page 7



⁵ System Operator consultation paper paragraph 51

⁶ Ngawha <u>submission</u> answer to Q2, page 2

• Mercury: "further work is required to find a more enduring, long-term solution or solutions to address the increase in the level of variable, renewable, increasingly fragmented generation".

Please contact me if you have any queries about this submission.

Yours sincerely

Ben Gibson

Strategic Projects Manager

