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Mr Roy Hemmingway
Chairman
Electricity Commission
P O Box 10041
WELLINGTON

Dear Roy,

System Operator Submission on the Proposed Exemption in Favour of the Whareroa Joint Venture

This submission responds to the Commission's published Notice of Intention to grant an Exemption in favour of the Whareroa Joint Venture. The proposed exemption would allow the Whareroa generation plant (Whareroa) a 5MW band for compliance with dispatch instructions issued by the System Operator in respect of HAW1102.

The System Operator has the following comments:

1. The key issue for the System Operator is that, in clear distinction to other participants for whom a similar exemption has been granted, Whareroa exports electricity onto the grid. Todd Energy and Meridian Energy jointly offer the generation from Whareroa net of factory demand. This means that when there is a reduction in the electricity usage of the factory, up to 5MW of un-offered generation will be exported to the grid. This creates the following issues:
 - this electricity is not able to be dispatched by the System Operator. The rules do not permit the System Operator to issue dispatch instructions for un-offered generation and neither is it able to do so.
 - the System Operator is concerned about the effect the un-offered (and hence unplanned) additional generation may have on equipment loadings. If generation can come onto the power system in an unplanned way, especially (as in the case under consideration) where it is close to a security constraint, the generation could cause an overload on that constraint. This may mean the System Operator could be unable to keep assets (in the area) within their stated capability.



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The draft terms of the exemption do not propose any operational restrictions to mitigate the effects of the foregoing problems. In our view:

- such an exemption could, in fact, lead to up to a 10 MW deviation from the actual dispatch instruction, as the participant could be permitted to offer at the 'plus 5MW level', that is, at a level above what they expect to operate. In doing so, the participant would be compliant. Then, if the participant's unplanned generation of (say) 9 MW comes into the system, the participant would still be compliant, as it would now be at the + 5 MW exemption limit from the offer point. The EGRs reflect the need for participants to offer based on where they expect to be operating or able to be operating for the majority of the trading period. We believe participants should not be able to offer above where they expect to run or are able to run simply to allow compliance with unexpected generation they may require to inject into the system. To be able to do so makes planning difficult for the System Operator, especially where grid constraints may be affected
- the variation could last for a number of trading periods if the deviation from the original offer quantity is 5MW or less. This is because the rules do not require a revised offer for amounts of under 5MW (see rule 3.15 of GII). This means the System Operator may not be able to issue a revised dispatch instruction, or incorporate the deviation into its tools for quite some time. This has implications for alignment of dispatch with the load (plus losses) in the power system. Where a generator with the +/- 5 MW exemption offers 35 MW while actually only generating 30 MW the 5 MW difference still has to be accounted for by the Dispatcher. While the 'offer and injection amounts' are limited to small plants with exemptions, nevertheless together they may constitute a larger and material number, making consistent dispatch and management of the frequency keeper band difficult. The result may lead to increased constrained on/off quantities as other plant is dispatched to make up the sum of the differences.
- the exemption should require Whareroa to comply with dispatch instructions in certain circumstances, such as those for which the System Operator issues a formal notice. There may be times when the System Operator needs Whareroa to comply with its dispatch instruction, such as in an emergency, or where assets are exceeding, or are about to exceed, their capability. Technical Code B (the Emergency Code) requires participants to use reasonable endeavours to comply with System Operator requests; the obligation is not mandatory. In effect, the System Operator needs to be able to suspend the exemption under emergency circumstances.

Accordingly, the System Operator opposes the grant of the exemption in the current draft form. Instead, the System Operator believes it should be granted subject to the following conditions:



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- the MW deviation from dispatch instructions must not continue for longer than 1 trading period
 - the participant must comply with dispatch instructions (in respect of Whareroa) where the System Operator issues a formal notice, as defined in Part A of the EGRs in accordance with the Policy Statement.
2. We note the Grid Injection Point HAW1102 does not exist. The System Operator believes the correct GXP reference is HWA 1102. That should be reflected in the terms of the exemption.
3. We re-state and emphasise the two factors that distinguish this exemption proposal from similar ones that have been considered by the board:
- this plant is a net exporter of energy to the grid
 - the plant is close to a known grid constraint and, when binding, the plant has a material impact on that constraint.

Yours sincerely



Dan Twigg
Risk and Performance Manager

