

Pricing Team  
Transpower New Zealand Limited  
Waikoukou  
22 Boulcott Street  
PO Box 1021  
Wellington, 6011

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By Email: [pricingteam@transpower.co.nz](mailto:pricingteam@transpower.co.nz)

## **SUBMISSION: UPDATED CNI & HVDC REACTIVE SUPPORT STARTING BBI CUSTOMER ALLOCATIONS**

### **Executive Summary**

1. New Zealand Aluminium Smelters (NZAS) appreciates the opportunity to provide feedback on Transpower's consultation regarding updated Benefit-Based Investment (BBI) allocations for the Central North Island (CNI) and HVDC Reactive Support projects. This submission is specific to the HVDC Reactive Support BBI.
2. While NZAS supports a benefit-based cost allocation approach, Transpower's proposed approach is both inconsistent with the processes described in the TPM and results in overstated allocations.
3. Our submission centres on four primary concerns:
  - i. Transpower's proposed approach appears inconsistent with the mechanisms provided for in the Transmission Pricing Methodology (TPM). The assumption change regarding NZAS's longevity does not appear to be consistent with Clause 81, and that Clause 43(5) does not apply;
  - ii. The proposal to apply Clause 52 as opposed to Clause 51 for the HVDC BBI unfairly shifts the cost burden from generators (who gain export capacity) to consumers, and NZAS's private benefit (and avoided self-supply) is overstated due to lack of inclusion of explicit demand response. This is exacerbated by the inconsistent underlying assumptions between the assumption that Tiwai remains, and the resultant shift in generation investment that has occurred as a consequence;
  - iii. By using version 1.1 of the Assumptions Book, Transpower is understating the significant demand growth projected in Assumptions Book 2.0, which would consequently dilute a number of consumers' (including NZAS) relative share of the BBI cost allocation, and is using an assumptions set (particularly generation build profile) that is inconsistent with Tiwai remaining to 2044. We have described some of the generation project assumptions changes in our response to Q3 later in this submission; and

- iv. The introduction of a new modelling assumption (NZAS remains until 2044) is not coupled with an update to assumptions that includes NZAS's active demand response and "self-insurance" during market stress (i.e. often circumstance which can result in periods of prolonged HVDC southward transfer). The omission exacerbates the inconsistency of assumptions and results in overstated benefits, and this allocated costs, to NZAS.
4. NZAS is not supportive of the proposed approach to restate starting BBI's as the proposed approach is inconsistent with the methodology described in the TPM to accommodate adjustments to BBI's.
5. The proposed allocations do not yet satisfy the TPM requirement of being "broadly proportionate" to benefits as the proposed approach overstates NZAS's benefit by ignoring the smelter's significant demand response, shifts costs away from the generators who benefit from additional export capacity, and uses outdated generation and demand forecasts that fail to reflect NZAS's shrinking relative share of national consumption.
6. Specifically, the piece-meal approach convolves:
  - a) a "Tiwai stays" assumption;
  - b) an assumptions book consistent with two "Tiwai leaves" scenarios; and
  - c) no recognition or modelling of other aspects of the demand response arrangements underpinning the Tiwai stays scenario).

This is unrealistic, problematic and would not produce consistent and fair outcomes.

## Responses to Consultation Questions

*Q1. Do you support our proposal to update the proposed starting allocations... rather than use the April 2023 consultation?*

7. NZAS does not support this approach. The HVDC Reactive Support starting allocations were determined in 2023, therefore any changes should be treated as an adjustment event. NZAS does not believe that any of the provisions in Clause 81 of the TPM apply as there are no events in (a) to (l) of Clause 81 that apply to a change in assumption.
8. NZAS believe Transpower appropriately assessed the risk and timing of closure in 2023 when the investment test was met, and consequently and appropriately determined starting allocations for all participants. Any proposal to retrospectively reset starting allocations should be separately consulted on as a potential TPM amendment.
9. It is NZAS's belief that Clause 43(5), which Transpower has proposed as the reason for re-determining the starting BBI, only applies to the initial determination of the BBI. Furthermore 43(5) refers to dealing with modelling differences arising between the determination of the BBI and the investment test.
10. NZAS recommends that any revision of TPM BBI determinations that do not adequately fit within existing TPM methodology be consulted on as part of a TPM Operational Review.

*Q2. Do you support the revision of the assumptions as to the timing of the closure of the smelter... to remaining in operation throughout the entire standard method calculation period?*

11. NZAS does not support this revision. While the closure timing proposed by Transpower aligns to the current commercial contracts with NZAS' contractual counterparties, it is NZAS's view that the revision of assumptions is:
  - a) not a Benefit-based Charge Adjustment Event as specified within the TPM;
  - b) inconsistent in that it fails to capture other aspects of NZAS's operational and contractual demand management capability; and
  - c) results in inconsistencies and a piece-meal approach to modelling assumptions, which are expanded further in our response to Q3.
12. NZAS is partially "self-insured" against stressed market and dry-year periods through controllable demand and active participation in security arrangements, which were demonstrated during 2024 and 2025.
13. The current modelling approach treats NZAS as a static load. By reducing load during stressed situations, NZAS reduces its own "benefit" from grid investments designed to alleviate those very stresses. Consequently the net private benefit attributed to NZAS is overstated. If NZAS provides the "solution" (via demand response), it should not be charged as if the grid investment is the sole provider of that security. In a market that is valuing and enabling flexibility Transpower's modelling should be updated to ensure consistency and fairness.
14. NZAS's view is that Transpower must incorporate NZAS's demand response capabilities into the scenario analysis to reflect a realistic benefit profile. NZAS notes that it would be reasonable to assume exercise of the 50MW calls with a reasonably high frequency of occurrence as NZAS has reduced load 8 out of the last 10 years in response to security of supply related issues. Furthermore, in 2024 and 2025 NZAS reduced demand by ~600GWh and 220GWh versus its baseload 572MW volume. NZAS recommends that Transpower could and should explicitly model the NZAS contractual demand response in full, as demand response and energy storage/BESS increasingly become material and influential.

*Q3. Do you agree we should use the Assumptions Book (1.1) assumptions used at the time of the April 2023 consultation?*

15. NZAS disagrees with this approach. Transpower's decision to ignore version 2.0 of the Assumptions Book results in a skewed allocation and introduces an inherent inconsistency between the change in assumption relating to NZAS remaining, and the resultant generation projects (particularly solar and wind projects) that have appeared in the market due to NZAS achieving commercial arrangements to 2044. Transpower should use the most current data available to ensure allocations are "broadly proportionate" to actual benefits based on a consistent assumption set that reflects rational investment behaviour.
16. Transpower's proposal to adhere to with Assumptions Book 1.1 for "consistency" ignores the updated assumptions in available in version 2.0. For example, Assumptions Book 2.0 projects a significant uplift in national demand across most scenarios. Given total New Zealand electricity demand is higher in 2.0 than 1.0, individual's share of that total demand will change which will impact net private benefits. Fixed demand, that is not subject to growth, will have a lower relative share of that demand and consequently its share of the BBI must be lower.

17. In addition to NZAS's long term contracting arrangements, several recent market changes and announcements since the initial allocation demonstrate the need for Transpower to maintain up-to-date assumptions when redetermining TPM cost allocations. These include:
- a) a number of new commissioned projects (Harapaki, Tauhara Stage 2, Te Huka, various smaller grid connected scale solar wind and geothermal projects as examples);
  - b) commitment to construction of a number of additional projects (Tauhei, Te Rāhui, Kaiwera Downs 2, Te Mihi Stage 2, Kaiwaikawe, Ruakaka and Kōwhai Park);
  - c) delayed increase in HVDC northwards capacity to 1400MW;
  - d) new contracting arrangements now in place to extend Huntly Rankine operation until 2035; and
  - e) new demand projects including various process heat electrification projects and prospective projects (such as Datagrid's recent announcement).

At a minimum, Transpower should be including NZAS's demand response in future Assumptions Book and TPM cost allocation modelling.

*Q4. Do you agree we need to update the IRA values for the period 1 September 2018 to 31 August 2023?*

18. NZAS supports this approach.

Yours sincerely



Andrew Elder  
Principal Advisor Energy  
New Zealand Aluminium Smelters Limited