



Comalco New Zealand Limited

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9 February 2006

Attention: Jenny Walton
Electricity Commission
P O Box 10041
Wellington

Dear Jenny

SUBMISSION ON THE SCENARIOS FOR THE WIND GENERATION INVESTIGATION PROJECT

Introduction

1. This submission is made by Comalco New Zealand Limited (*Comalco*), on behalf of Comalco Power (N.Z.) Limited (*Comalco Power*) and New Zealand Aluminium Smelters Limited (*NZAS*). It is made in response to the Commission's consultation paper titled 'Scenarios for the Wind Generation Investigation Project' (the *Paper*) of December 2005. Nothing in this submission is confidential.

General Response to Questions

2. The range of scenarios appear reasonable to Comalco. Recent announcements by Meridian and Trustpower regarding wind energy potential in Otago suggest developed potential is much higher than that reasoned by the Commission. However, Comalco believes that Scenario B and C should be sufficient to draw conclusions on the potential impact of larger capacity investments in the South Island.
3. In respect of limiting and causing factors, Comalco agrees with the factors identified in Table 6. Comalco notes, for the Commission's consideration in latter stages of this project, that overcoming the identified limitations is likely to impose costs on industry participants. It is important that the Commission considers the appropriate allocation of these costs.

4. For example, large and sudden changes in wind generation output can have a significant impact on frequency keeping. Currently costs for that service are solely allocated to consumers. It would be economically inefficient if wind energy providers were not to face the incremental costs that they impose upon the need for frequency keeping service.

Transmission Investment

5. A significant omission from the paper is a discussion on impacts on investment in the transmission system. Paragraph 33 of the Paper suggests that this might be discussed in the next phase of the project, but Comalco wishes to ensure that the project focuses on this issue as soon as possible.
6. It is likely that the output from some future investments in wind generation will be constrained by the capacity of the transmission system. Investment in the transmission system will be required in order to obtain full output from such generation investments. The cost of the required investment to expand transmission capacity must be allocated to the investor in the generation assets. Any other cost allocation approach is inconsistent with maximising dynamic efficiency. Potential investors in generation must be allocated the full incremental costs of their investment decisions, otherwise they will be receiving a subsidy from others. This leads to nationally sub-optimal investment decisions.
7. In return for the investment, the generator can be allocated a firm capacity right on the expanded transmission links.

General

8. We would be happy to discuss any questions or comments you may have in relation to the points and recommendations raised above. If you would like to discuss Comalco's comments further, please contact me.

Yours faithfully

A handwritten signature in black ink, appearing to read 'M Scotton', written in a cursive style.

Michael Scotton
Power Manager