

TRANSPower NEW ZEALAND LIMITED

Comments to the  
Electricity Commission  
on 400kV Draft Decision

Volume III – Supporting Reports

*June 2006*

**T R A N S P O W E R**



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- **Background**

On 31 May 2006 Transpower informed the Electricity Commission that it intended to amend its Auckland 400 kV grid investment proposal as set out in its Grid Upgrade Plan (GUP) of 30 September 2005. Consequently, the Commission suspended its consideration of the GUP proposal on 1 June 2006 but confirmed that it would still like to have interested parties comment on:

- the alternatives considered in the GUP proposal;
- issues around a potential transmission corridor; and
- the Commission's Draft Decision on the GUP proposal including its application of the Grid Investment Test.

This submission is in response to the Commission's request for such comments. Transpower has commenced work on the proposed amendment to the 400 kV GUP proposal and anticipates that the amendment will be submitted in July 2006.

- ***Document Structure***

Transpower's submission is divided into three volumes:

- Volume I sets out an overview of the key arguments in favour of Transpower's proposal;
- Volume II contains the technical detail and argument supporting the overview contained in Volume I. This includes an appendix containing responses to each of the Commission's 36 specific questions; and
- Volume III contains the supporting documents and references used within the preceding volumes.

This is **Volume III**.

## Contents

### **SUPPORTING REPORTS**

1. KEMA Report: Review of Auckland 400 kV Plans in Regard to Good Utility Practice. 21/6/06
  
2. CRAI Report: Analysis of Transpower's Proposed 400kV Project and Alternatives. 23/6/06
  
3. ROAM Consulting Report: Nodal reliability study of North Island - *Reliability of Supply into Auckland to 2016*. 23/6/06.
  
4. Energy Modelling Consultants  
Ltd Report: A Critique of the Transmission Loss Modelling Methodology as described in "Economic assessment of Transpower's Auckland 400kV grid investment proposal" 21/6/06.
  
5. Jos Arrilliga Report: Use of HVDC Multi Terminal Options for Future Upgrade of the National Grid. 2/6/06
  
6. Teshmont Consultants LP  
Report: Review of Capital Cost Estimates for Transmission Augmentation into Auckland. Revision 2, 22/6/06.
  
7. EEA Paper Allowing for extreme events in transmission planning. 24/4/06