#### TRANSPOWER

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John Gleadow Director Transmission Electricity Commission PO Box 10041 WELLINGTON

Dear John,



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# **Proposed New Investment at Woodville**

Scanpower Limited (Scanpower) is Transpower's connected customer at the Woodville grid exit point (GXP). Transpower and Scanpower propose to enter into an Investment Contract to provide a second 110 / 11 kV 10 MVA three-phase transformer at the Woodville GXP (Proposed Investment). Commissioning of the proposed investment will increase the level of reliability at the Woodville grid exit point above Grid Reliability Standards (GRS) under Scanpower's default Transmission Agreement.

Rule 5.1 of section II of part F of the Electricity Governance Rules 2003 (EGRs) provides that, subject to rule 5.5, if a proposed transmission agreement increases the level of reliability above the GRS for a particular grid exit point, the parties must certify in writing to the Electricity Commission Board that they have consulted with affected end use customers in relation to the proposed increase in reliability and any resulting price implications, and that there are no material unresolved issues affecting the interests of those end use customers.

The purpose of this letter is to comply with the obligations on Scanpower and Transpower under rule 5.1.

## Background

The existing T1 110/11kV 5 MVA transformer bank at Woodville has reached the end of its service life and is scheduled for replacement. T1 comprises three single-phase units and a spare single-phase unit. The replacement for T1 will be a single three-phase unit.

The absence of a second transformer causes periodic disruption to the local community as outages result in a complete loss of supply to the community. No back-feed is available via the Scanpower network.

Scanpower has requested a second transformer be installed, in conjunction with the planned replacement of the existing transformer, to provide no-break N-1 security.

## Proposed Investment

Upon commissioning, the proposed investment will increase the level of reliability at the Woodville Grid Exit Point above GRS under the default Transmission Agreement between Scanpower and Transpower.

The application of the economic test to the situation demonstrates that, at a value of lost load (VOLL) of \$20,000 per MWh, investment in a second transformer would be uneconomic. Nevertheless, Scanpower had determined that the intangible certainty benefit that the higher level of security would bring makes the investment cost-effective.

## Compliance with Rule 5.1

Scanpower is a Trust owned network company (its customers are also its shareholders). They are represented by an elected Board of Trustees, who directly influence company policy and strategy.

As a trust owned company, the focus of Scanpower is on the electricity requirements of the region and it acts in its consumers' interests in ensuring a reliable electricity supply at a reasonable price. Scanpower's Statement of Corporate Intent outlines its principal objectives, and these reflect the importance of the region's consumers and delivering a high quality electricity distribution network in a cost effective manner to the local community. The Scanpower Board of Trustees therefore represents the affected end users.

The Scanpower Board of Trustees has considered the proposed investment, including the associated increase in reliability and resulting price implications. Weighing up the costs and benefits, the Scanpower Board elected to proceed with the investment. The rationale for this decision was as follows:

- The community experiences an annual maintenance outage of 6-8 hours per year. The feedback they receive on this indicates that the community is finding a total loss of supply increasingly unacceptable.
- In addition a single transformer site leaves the community exposed to the risk
  of an extended unplanned outage in the event of a catastrophic failure of that
  single unit. Scanpower finds this risk unacceptable. The higher security of
  supply gained due to the existence of a second transformer means a total loss
  of supply to the Woodville network would be very unlikely.
- Scanpower investigated an alternative arrangement: stand-by generation.
   However, there were several complicating factors associated with this option which resulted in Scanpower favouring the second Woodville transformer option.
- Scanpower had earlier also investigated the possibility of extending their network to link the Dannevirke and Woodville networks. However the costs involved and technical issues due to the distances involved made this a less attractive option than the second Woodville transformer.

#### Certification

On this basis, Transpower and Scanpower certify to the Electricity Commission Board that consultation in accordance with the requirements of rule 5.1.2 of section II of part

F of the EGRs has taken place and that there are no material unresolved issues affecting the interests of affected end users.

Yours sincerely

Len Gould

**Customer Services Manager** 

Grid Development

Transpower



Lee Bettles

CEO

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**Kerry Sutherland** 

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Scanpower Customer Trust