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Your letter of	
Our reference	PTD SE PTI /ue 1485 / AECT
Date	April 13, 2007

### Auckland Electricity Network - Status and Performance Report 2006

Dear Trustees,

Vector Limited is required to execute an independent annual review of its electricity network in Auckland according to the "New Deed Recording Essential Operating Requirements" and to provide this review to the AECT. The thematic areas to be addressed are:

- The state of the electricity network with regard to maintenance programs and expenditure,
- Any need for upgrading the electricity network,
- The capacity of the electricity network, and
- Any security risks to the electricity network.

Siemens PTD SE PTI was asked to prepare this report for Vector Limited in the context of an extensive consulting project investigating the Reliability of Power Supply to the Auckland Region that Siemens PTD SE PTI is currently undertaking at the request of Vector Limited and Transpower New Zealand Limited. Siemens PTD SE PTI is active in the network consulting business for more than 30 years and has significant international experience in several hundred projects. The Status and Performance Report 2006 of the Auckland Electricity Network was worked out mainly by Dr. Carsten Böse and Dr. Michael Schwan.

The key findings and statements of the Status and Performance Report 2006 are summarized as follows:

- In total, today's overall network size and network topology is considered to be appropriate for the supply of the Auckland Region.
- The technical performance of the network in total and of the separate equipments is closely monitored and analyzed. Poorly performing equipment is identified and addresses appropriately in planning and operation.
- The planning process and the asset management process – including the definition and scheduling of preventive maintenance – are clearly defined and thoroughly implemented, with Vector's IT architecture and also organizational structure explicitly reflecting the defined requirements and responsibilities.

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- The significant comprehensive scope of Vector's asset management process, the broad scope of data recording and analyzing and the level of detail used in the definition of explicit programs and schedules is considered to be above the average state of the art in electrical distribution network operators.
- The age profiles of the network equipment do not feature any critical issues.
- An on-site survey of the condition of several equipments in the Auckland Electricity Network confirmed that the system is in an overall good physical condition.
- The levels of capital expenditure spending and of asset management expenditure are considered to be appropriate. It is especially noted that Vector has successfully installed comprehensive processes to plan and forecast capital and asset management expenditures in a high level of detail – which is an important prerequisite for systems facing a highly dynamic development such as Auckland.
- The review of the system's supply reliability performance showed that the defined Service Levels and target thresholds are clearly met – and that especially in the Auckland Region the supply reliability level is even better than the average of Vector's systems, and significantly better than the New Zealand average.
- In the separate analysis of the power infeed from the transmission system, of the sub-transmission system and of the MV distribution system, several issues that are potentially posing a threat to supply security in the Auckland Region were identified – as it would be expected in any system. Vector and Transpower had already been aware of these issues and appropriate measures are taken. In general, the level of awareness and the handling of such security-related issues are highly adequate. In this context, also the efforts taken by Vector to be prepared for the handling of major outages are considered to be highly adequate.

Sincerely yours,



Dr. Michael Schwan



Dr. Carsten Böse