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Jenny Walton
Electricity Commission

By email to info@electricitycommission.govt.nz

Dear Jenny

Transpower's 20 October 2006 proposal

1. Introduction

On 24th October 2006 Transpower New Zealand Limited lodged with the Electricity Commission a proposal for the North Island Grid Upgrade Project. This updated, and replaced, the original proposal which was submitted to the Commission as part of a full Grid Upgrade Plan (GUP) in September 2005. The Commission released a draft decision to decline the original proposal on 27th April 2006 and, at Transpower's request, the Commission suspended its consideration of the original proposal on 31st May 2006.

The Commission has recently announced that it will undertake two rounds of consultation on the latest proposal. The first in November 2006 to give interested parties the opportunity to make initial written comments on the proposal, including consideration of the possible alternatives. The second period during February and March 2007 will follow the Commission's announcement of its draft decision about whether to approve or to decline the proposal. The Commission hopes to announce its draft decision either in late December this year or early in the New Year.

While Business New Zealand is concerned that there needs to be a secure supply of electricity to Auckland to support its future growth it is not fully convinced that the Transpower proposal as submitted is either the only, or the most cost effective long term option. It appears that the Transpower submission is selective in the inputs it has used in order to justify the timing of the investment and the technology it is prepared to uptake or reject during the period under consideration.

2. Specific Issues

Transpower has based its load forecast in the latest proposal on the higher growth scenario in the Commission's 2005 Statement of Opportunities. In its original proposal it used the mid-point scenario. Transpower has justified its use of the higher growth scenario on the grounds that load was higher than predicted during the 2006 winter; to use the high point is in line with good electricity industry practice; and "improvements in forecasting technology and methods." As a member of the Winter 2007 Working Group on demand forecasting we would have difficulty accepting that forecasting technology is anything other than chance even for one year ahead as weather has a significant impact on peak demand.

In the recent Grid Planning Assumptions (GPA) the demand growth forecasts were significantly lower than those used in the Commission's initial 2005 Statement of Opportunities. Therefore while Transpower has moved to a higher growth scenario the Commission is looking to reduce its forward estimates of growth on the basis of improved forecasting technology and methods. We believe careful consideration is needed on whether the most appropriate load growth scenarios have been used given the evidence now available on demand growth.

The dismissal of high temperature conductors as an option on the grounds that Transpower has no experience of such technology appears to be unreasonable under the circumstances. Prior to the commissioning of the HVDC Link there was no experience in New Zealand and little in the world of this technology. We need to be satisfied that Transpower's concerns regarding the adoption of this technology are justified considering international experience and the proposed timeframe for this project.

Transpower has only considered three non-transmission alternatives each featuring the commissioning of a single generation plant in Auckland. It seems strange that Transpower has not considered Contact's proposed Otahuhu C CCGT combined with peaking plant as an option. By considering only single generation plant the diversity and peak capacity benefits are not considered. To be creditable the proposal should have considered all reasonable generation options.

Neither is it clear if sufficient account has been taken of the potential impact of demand-side management. A non-transmission alternative that includes material demand-side management of system peaks combined with local generation has not been included in the assessment. This is an unacceptable omission especially when considered against Transpower's most recent transmission price methodology (TPM) proposal which contains a coincident peak component clearly targeted at reducing peak demand.

It also flies in the face of confirmed government policy to promote the uptake of energy efficient technology in the commercial and residential sector and the Commissions own work in this area. As New Zealand moves to achieve its climate change targets it would be expected that load growth would reduce significantly from historic data not increase.

Transpower is seeking approval for \$824 million in 2011 dollars. This represents the 90% limit of estimated project costs developed using a Monte Carlo technique. This technique takes into account variations in the exchange rates, inflation, real interest rates, property cost escalation, price accuracy and scope contingencies. In 2011 dollars the amended proposal is \$115 million more expensive than the 400 kV original proposal yet is has been promoted as a cheaper option. Of concern is the fact that the amended proposal appears to be based on Transpower receiving its upper estimate of costs plus a margin plus a contingency.

In considering the timing of the line upgrade, Transpower has used the value of lost load (VOLL). The base value it has adopted is \$20,000 per MWh, as required by the GIT and the sensitivity values it has used are \$10,000 per MWh and \$40,000 per MWh. The latter figure is above the \$30,000 upper sensitivity figure prescribed in the GIT. Transpower has adopted this higher figure because of advice it received from a consultant that there is a strong case for VOLL in the Auckland region being valued at \$41,000. This appears as another example of selective inputs.

3. Recommendations

1. We recommend the Commission carefully considers whether Transpower has:
 - established that there will be the surplus generation to require the amount of additional transmission capacity between Whakamaru and Auckland it is proposing;
 - adopted appropriate load growth scenarios given the evidence available on demand growth and the context in which its estimates will be used;
 - proposed efficient costs and the Commission should look for ways to ensure Transpower will seek out cost savings in planning and construction; and
2. We recommend that the Commission considers the opportunity benefits through the adoption of future new technology that some options create. Comparative analysis of the options should include this value.

3. We recommend that the Commission seeks clarification from Transpower on the following two issues:
 - If a reasonable allowance for demand-side management was included in the non-transmission alternatives would this have a material impact on the analysis and preferred option?
 - Has the expected impact of the proposed transmission price methodology been considered in the use of load growth scenarios? If not why not?
4. We recommend the Commission to review the VOLL it prescribes for use in the GIT and to take a cautious view of Transpower's argument that the value of in Auckland is \$41,000 per MWh.

Contact;

George J Riddell

Manager Energy Environment & Infrastructure

Business New Zealand

Phone +644496 6562