



## AUCKLAND REGIONAL CHAMBER OF COMMERCE SUBMISSION ON TRANSPOWER'S UPPER NORTH ISLAND GRID UPGRADE PROPOSAL

### Introduction

The Auckland Regional Chamber of Commerce and Industry welcomes the opportunity provided by the Minister for the Environment to make a submission on Transpower's Upper North Island Grid Upgrade proposal.

**The Auckland Chamber of Commerce confirms that it wishes to be heard in support of this submission.**

**Contact details for service:** Julie Cooke, PA to Auckland Chamber of Commerce Chief Executive, Michael Barnett; Ph: (09) 302 9916, email: [jcooke@chamber.co.nz](mailto:jcooke@chamber.co.nz) or Fax: (09) 302 9919.

The Auckland Regional Chamber has a corporate membership of more than 7000, including many businesses located in the upper North Island council areas covered by the notices of requirement and applications for resource consents called in by the Minister for the Environment in relation to Transpower's grid upgrade proposal.

The Auckland Chamber is dedicated to the strengthening of the Auckland region's status as New Zealand's pre-eminent commercial, industrial and communications region and to assisting the development of the region in creating a desirable environment for its residents.

### Overview

In general terms the Chamber agrees that Transpower's upper North Island grid upgrade proposal is an important step in a 'must happen' process to provide Auckland and North Auckland with a long-term guaranteed, reliable electricity supply system.

We agree that the proposal has national significance and welcome the Minister of Environment's decision to call in the notices of requirement and resource consent applications and refer them to a single hearing by a Board of Inquiry in accordance with sections 140 to 150 of the Resource Management Act 1991.

To this end, the Chamber strongly believes that it is extremely important that Auckland secures a long-term reputation for having a reliable electricity supply system. Ensuring security of reliable and affordable electricity supply to the greater Auckland region, including the neighbouring areas of Northland, Waikato and Bay of Plenty is of paramount importance to maintaining business confidence and resulting living standards overall.

Given that the Auckland city-region is unlike most world cities in having its electricity generated at a considerable distance from where it is used, and given the significant size of the Auckland region contribution to New Zealand's economy, a reliable grid for electricity supply is critical to

maintaining confidence in not just Auckland's economy but New Zealand's; its growth prospects, investment in business and the welfare of New Zealanders generally.

A reliable grid which has adequate capacity to meet future demands of a growing economy is vital, and therefore the Chamber strongly supports the overall justification of the proposal. However, we have a number of concerns and issues of significance which our submission will focus on.

With warnings of power shortages predicted in the next few years if a grid upgrade does not proceed, Transpower's proposal to develop a new "gold-plated" 400kv-capable national grid electricity transmission line from Whakamaru to Otahuhu and Pakuranga will obviously improve security of power supply for Auckland and provide business confidence benefits.

In particular, we have concerns as to whether potentially more economically viable and environmentally sustainable alternatives have been sufficiently considered, and note that it is within the terms of the Board of Inquiry to examine these concerns. Our preliminary assessment suggests that a 220kv transmission option that is available will meet demand requirements in the medium term and has both significant economic and environmental benefits compared to Transpower's 400kv proposal which submitters have been asked to support or oppose. At the same time, the Chamber's preliminary view needs to be critically assessed.

### **Submission scope**

Transpower's proposal involves 13 notices of requirement and 10 applications for resource consent.

The Chamber notes that in making its submission it is requested to:

- Provide details of the notice(s) of requirement or application(s) it is submitting on;
- Whether the Chamber supports or opposes the relevant notices of requirement or resource consent applications, or whether it is neutral regarding the notices or applications;
- The reasons for our views; and,
- The decision the Chamber wishes the Board of Inquiry to make, including the general nature of any conditions sought.

Accordingly, the Chamber submission supports the overall thrust of the notices of requirements and resource consent applications supporting:

- The upgrade of Pakuranga, Otahuhu and Brownhill substations;
- The provision of underground cables from Pakuranga to Brownhill and Otahuhu to Brownhill.

However, we reserve our support in respect of the seven notices of requirement and two resource consents sought for the construction, operation and maintenance of "a 400kv capable transmission line" between Whakamaru in Taupo District and Brown Hill Road in Manukau City on the basis of the following considerations and requests to Board of Inquiry.

### **Request to Board of Inquiry**

The Chamber requests that the Board of Inquiry conduct an economic and environmental benefit-cost assessment of building a 400kv capable transmission line compared to a duplicate 220kv along the existing line (or immediately adjacent to it, as may technically be required or preferable).

For reasons set out below, we are advised that there is ample time in the project's work programme to undertake a robust assessment on whether a 400kv capacity option (as opposed to a duplicate 220kv line) is desirable and/or needed.

### Considerations

In requesting the Board of Inquiry undertake an assessment of a duplicate 220kv line in preference to Transpower's proposal for a 400kv-capable line, the Chamber offers the following observations for consideration:

- There was never any doubt that new transmission lines would be needed for Auckland eventually. For some years, the question has been what size of line and when?

Based on assessments by major stakeholder groups, including the Major Electricity User Group, reasons for preferring a 220kv line include:

- Only 220kv is needed for at least the next 2 and possibly 3 decades
- It is a possibility that the 400kv line will never actually be used at 400kv.
- From the date the 400kv line is commissioned (in 2011) consumers will begin paying for it.
- It is unreasonable and unfair that consumers will for at least 20 to 30 years be required to pay for the more expensive and environmentally intrusive 400kv line even though it will only be used at 220kv.

The Chamber also notes that the additional cost of the 400kv line compared to the 220kv line has been estimated by the Electricity Commission to be 11% higher until at least 2040, and that it may never be utilised at a capacity above 220kv throughout this time. This is confirmed by the fact that in the Commission's approval of Transpower's grid upgrade proposal (5 July 2007):

- The Commission base case used forecast electricity demands for Auckland for the next 30 years prepared in 2005.
- However, the Commission has subsequently prepared an updated base case (2007) that forecasts a lower rate of demand growth, in which the earliest need date for capacity beyond 220kv is 2015 and the actual need date could be up to 10 or more years later.

Putting aside the question as to why the Commission didn't use the more recent forecasts in coming to a decision on Transpower's request for a 400kv-capable line rather than a duplicate 220kv option, the Chamber urges the Inquiry to note the minority view in the Commission's decision suggesting that:

- As 2015 approaches, the demand growth and new generation in the intervening years will have been revealed, and the actual need date will be able to be predicted with much greater accuracy.

Another key issue requiring further investigation and which appears to support a 220kv alternate centre on the assumption the majority decision of the Commission relied upon to justify the 400kv line that there would be little or no new thermal generation built in Auckland over the next 30 to 40 years. This assumption appears to be wrong.

The Chamber notes that within weeks of the Commission announcement (5 July 2007) supporting a 400kv line:

- Genesis Energy had lodged resource consents with the Rodney District Council for their planned Rodney power station. NBR (19 July) reported consents are being sought for up to 480mw.
- On 31 July Contact Energy announced consents had been filed for the Te Mihi geothermal power station project, for generating 225mw. Contact said it could be on-stream as early as 2011. Contact has also indicated that it expects to file consent applications for another geothermal power station at Tahaura in 2008.

In summary, if the commitments to build the proposed Otahuhu C (Contact Energy) and Rodney (Genesis Energy) power stations within the next decade are achieved, the need for new large transmission lines into Auckland would seem to be unnecessary for meeting demand requirements in the medium-term.

The Chamber believes that from a competitive market perspective, rather than a system that heavily relies on a single large transmission line to supply Auckland power from a long distance, a better option to improve security into Auckland is to diversify supply and to have more thermal generation closer to load.

The Chamber also urges the Inquiry to note and assess the minority Commission view that:

- When the Proposal is fully implemented at 400kV and becomes highly loaded, the Upper North Island would be very dependent on this line. Any double circuit failure in the line under high load, even if of short duration, makes widespread blackouts due to voltage collapse and cascade failure a distinct possibility. Restoration would take days if the failure was physical damage to the conductors or towers, and hours if caused by trippings such as lightning strike.

In summary, the Chamber believes that from an economic/ market viewpoint, there is sufficient planning in place to be confident that other transmission enhancements are capable of providing Auckland and Northland with a very secure electricity supply, and at a lower cost to consumers, faster and with less community concern such as an option to duplicate a 220kv line with a capacity to be 400kv-capable along the existing route.

Clearly, the environmental footprint for a 220kv line is considerably less than that of the 400kv line. Our brevity in making this point should not be interpreted as indicating that this aspect is of any less importance to Chamber members than the economic considerations discussed here at greater length.

### **Concluding comment**

The Chamber supports a call-in of Transpower's grid upgrade proposal. However, for the reasons set out above covering economic, environmental and social considerations, we

strongly encourage the Board of Inquiry to undertake a comprehensive risk assessment of the preference for the alternative 220kv as a better option than the 400kv proposal. We suggest that this assessment be undertaken and to do so either within the current call-in process (if legally possible) or a modified process leading to a second call-in hearing for the alternative 220kv if this is shown to be a better option, as the Chamber's preliminary assessment suggests.

Reinforcing our concluding comment, the Chamber notes published opinion of key stakeholder groups (notably the Major Electricity User Group) that a modified call in process to gain approval for a 220kv option is possible within Transpower's expected timelines.

On balance, we seriously question the need for a gold-plated 400kw-capable grid project which consumers will be paying for over many years and requiring a commitment to large physical build costs with significant environmental consequences, all without any firm indication that any electricity will be transmitted.

On the other hand, we agree it is important to also encourage Transpower to continue proceeding with investigations, approvals and easement procurement for a duplicate 220kv line to be completed by 2010.

Michael Barnett  
Chief Executive  
Auckland Chamber of Commerce  
3 October 2007