

IN THE MATTER OF The Resource Management Act 1991

AND

IN THE MATTER OF The Notices of Requirement for the Upper
North Island Grid Upgrade Proposal

**STATEMENT OF EVIDENCE BY MATTHEW RICHARDS
FOR THE AUCKLAND REGIONAL COUNCIL**

Introduction

1. My full name is Matthew Peter Richards. I hold the degrees of Bachelor of Arts and Master of Planning Practice from the University of Auckland. I have 7 years professional planning experience and I am currently employed as a Senior Policy Planner in the Policy Implementation Group for the Auckland Regional Council (ARC).
2. I have previously held planning positions in private consultancy, with Serco Highways and Traffic and Connell Wagner, and with Central Government agencies - Transit New Zealand Ltd and most recently with Transpower New Zealand Ltd.
3. I confirm that I have read and am familiar with the Code of Conduct for Expert Witnesses in the Environment Court Consolidated Practice Note (2006).
4. I appear in relation to the ARC submission to the Board of Inquiry for the Upper North Island Grid Upgrade Proposal.
5. I have reviewed the relevant background documentation, including the ARC's submission, the Proposed Notices of Requirement for the Upper North Island Grid Upgrade Proposal as notified, and the relevant evidence lodged by Transpower New Zealand.

ARC Submission

6. The ARC made a submission to the Board of Inquiry opposing the proposal in part, and sought that the Board of Inquiry recommend that Transpower withdraw the NoR for Manukau City Council and Franklin District Council, for the overhead section of transmission line between Brownhill Rd and Sowerby Heights Rd. It was considered that Transpower had not given adequate consideration to alternative methods, particularly methods involving underground transmission cables.
7. Further analysis has been undertaken on the impact of the proposal on three matters that were of concern to the ARC. These were potential adverse effects on the Hunua Ranges Regional Park, Ardmore Aerodrome and the potential growth of Hunua Village.

Detailed further consideration and input from other parties within the ARC suggests that in terms of these matters the proposal does not generate the level of concern that was anticipated at the time the submission was drafted. However, significant concerns remain about the impact of the proposal on the rural character of the areas through which it passes.

Security of Supply

8. A secure supply of electricity to the Auckland Region, with sufficient capacity to meet current and future demand, is a fundamental pre-requisite to the social and economic objectives of the Auckland Region. Partial or total losses of supply to the Auckland Region impose significant economic costs not only to Auckland but to the whole country. The proposed grid upgrade provides the opportunity to increase the security of supply to the Auckland Region.
9. The New Zealand Energy Strategy as well as Chapter 5 (Energy) of the Auckland Regional Policy Statement support a shift to renewable forms of energy. A shift towards renewable energy may require a strengthened transmission network to take account of the reliance on uncertain weather conditions of some forms of renewable generation. In terms of the Auckland Region it is clear that for the foreseeable future the majority of Auckland's base-load electricity supply, whether renewable or non-renewable, will come from outside the region and rely on transmission infrastructure.
10. One conclusion of the ARC's June 2006 submission to the Electricity Commission on the Commission's draft decision was;

"When planning upgrades of transmission infrastructure, there is a need to take a conservative approach and use high future demand predictions. There is also a need to ensure that transmission capacity does not act to constrain the uptake of renewable generation. This indicates that there is strategic economic value in additional transmission capacity, beyond that which might be considered adequate based on medium growth projections. The ARC therefore considers that 'spare' capacity should be attributed a reasonably significant value in investment decisions."

I concur with the view that there is significant value in the additional transmission capacity and the spare capacity.

Hunua Ranges Regional Park

11. The ARC submission raised concerns about the impact of the proposal on views to and from the Hunua Ranges Regional Park. I have undertaken a subsequent site visit with ARC Parks Officers to key areas of the regional park that were of primary concern:

- Mounoukai park entry - at this point the proposed transmission line will pass beyond an escarpment to the south. It will not be seen by people entering the park. On exiting, park visitors are unlikely to view the transmission line, due to the presence of the escarpment.
 - Repeater Road passes along a ridge and for part of the Wairoa Loop Track. I was only able to identify very short sections of the proposed route by moving off the road and several metres into the bush. The view would also be at quite some distance.
 - Mangatangi Trig - the main views from the Mangatangi Trig are to the south. If the lines were to be visible from this location they would be a considerable distance away.
 - Oram Road passes along a wide/ flat ridge with forestry on both sides. I did not see the transmission corridor from the road although future harvesting to the west of Orams Road (on private land) may open up views. Parkland in this vicinity is currently subject to a long term forestry lease. Waytemore Forests do not encourage public use of the area.
12. In the future the experiences of park users could be usefully enhanced by the opening up of view shafts looking west across farmland and there is potential for the line to affect the visitor experience. However, the height of a viewing platform would be well above the height of the transmission line and would significantly reduce the scale of the line. Careful placement of viewing platforms could potentially avoid views of the transmission line.
13. This detailed investigation indicates that views from within the park do not generate the level of concern previously anticipated. There may be issues regarding the approach to the Hunua Falls entry on White Road and Falls Road. Although the line is closer to the Hunua Village at this point than to the park, the effect on rural amenity and views of the line from public places in the Hunua Village may impact on the experience of visitors on the way to the Park. Ms Peake discusses the White Road and Falls Road area and the views from Hunua Village further in her evidence.

Franklin Growth Strategy- Hunua Village

14. The ARC submission raised concerns regarding the potential for the proposed transmission line to affect potential growth in the Hunua Village, as it was considered that pylons of the scale proposed were incompatible with an urban area.
15. The landscape impacts on the potential growth of the Hunua Village are considered in the evidence of Ms Peake. I concur with her assessment that there is inadequate discussion of cumulative effects on the area identified for growth of the Hunua Village in

Plan Change 14 to the Franklin District Plan. The consideration of alternatives is covered later in my evidence.

- 16 The Franklin District Growth Strategy (FDGS) identifies Hunua as part of the North East Inland Character Area which also includes areas such as Bombay, Paparata and Paparimu. The FDGS indicates limited growth, from a current population of 337 in 2004 to 440 in 2021 and 585 in 2051.
- 17 The FDGS states that "the link between Papakura and Hunua through the Hunua Gorge is somewhat of a constraint to accessibility and for this reason, it is considered that Hunua is not suitable for a large amount of growth"

Ardmore Aerodrome

- 18 The ARC raised concern in its submission on the potential impact of the new transmission line on the operation of the Ardmore Aerodrome and questioned whether the scale of the mitigation measures proposed raised an argument for the line to be undergrounded in the vicinity of the Aerodrome.
- 19 I acknowledge that Airways Corporation of New Zealand (Airways) has principal responsibility for facilitating the safe movement of air traffic through New Zealand airspace. Airways submitted in conditional support of the proposal on the basis that the transmission line is 5,500 metres from Ardmore Airport and more than the required distance from other navigation equipment. I have no aeronautical expertise and I consider it more appropriate that any further arguments as to the effects on the Ardmore Aerodrome be articulated by other submitters who do have such expertise.

General Rural Amenity

- 20 The remaining issue of the effects of the proposed transmission line on general rural amenity and on the area of 'Outstanding Natural Landscape' (ONL62) identified in Proposed Change 8 to the ARPS that the route traverses. Ms Peake considers these issues in her evidence.

Consideration of Alternatives

- 21 The ARC submission considered that Transpower has not given adequate consideration to alternative methods. The basis for the recommendation in the ARC submission that, "*Transpower withdraw the NoR for Manukau City Council (MCC) and Franklin District Council (FDC), for the overhead section of transmission line between Brownhill Rd and Sowerby Heights Rd*", was that it was considered that further undergrounding should be investigated due to the scale of the potential landscape impacts.
- 22 The ARC recommended in its submission to Transpower on the Interim Preferred Route and in a submission to the Electricity Commission, that the underground cable

extend from the Otahuhu substation to Sowerby Heights Road (near the southern entrance to the Hunua Ranges Regional Park)

- 23 It was considered that a significant increase in the length of undergrounding would most likely change the scope of the NoR as lodged with FDC and MCC and that a new NoR would be required. Therefore it would need to be withdrawn and resubmitted rather than altered as part of this process.
24. The discussion of alternatives within Mr Boyle's evidence is based around the engineering and cost constraints of three different options and also covers several options raised by submitters
25. Mr Boyle's evidence seems to suggest that several different options are feasible from an engineering perspective but would be more complex to build, operate and/ or maintain technically and with an associated higher cost to the proposal, therefore being difficult to progress through the Electricity Commission approval process
- 26 While I consider these concerns are valid, they appear to rely heavily on the Electricity Commission process as the means to determine alternative methods under the RMA. The Grid Investment Test (GIT) does not provide an adequate consideration of environmental effects. Despite amendments to the Governmental Policy Statement on Electricity Governance (GPS) in October 2006, the GIT remains overwhelmingly an economic test. Cost and electrical engineering considerations need to be balanced with environmental matters in the Resource Management Act process.
- 27 Transpower should have included environmental criteria in the assessment of all options at an early stage and given it a sufficient weighting despite it not being strictly in the requirements of the GIT. This includes effects on amenity, both urban and rural. Assigning a monetary valuation to possible mitigation is not an adequate consideration of environmental effects and is not an appropriate means for determining the environmental effects of competing methods
- 28 I consider greater weight should be given early in the process to options which reduce the adverse environmental effects of transmission systems to ensure that a project that passes the GIT and becomes the proposal before the Electricity Commission has a high chance of also obtaining the necessary RMA consents. This will reduce costs in the long run to Transpower, local authorities and to the public from options that are unacceptable from an environmental perspective being advanced because they satisfy engineering and cost criteria. Given that one of the major impacts of transmission lines is landscape effects it needs to be given significant weight in the consideration of alternative methods early in the process rather than relying on assigning a monetary value to cover mitigation. Adverse landscape effects cannot easily be mitigated

- 29 Ms Peake has identified in her evidence what she considers to be some errors in the landscape assessment methodology and that the proposal will have adverse landscape and visual effects. I agree that landscape effects particularly around the collective appearance of the existing lines and proposed line should have been given more weighting in an assessment of alternative methods, and that cost and electrical engineering considerations appear to have determined what alternative methods were discounted before the landscape effects were assessed. The proposed line should not be considered in isolation.
30. However, I cannot conclude from the information available whether this could have altered the selection of a 400kV line. I consider that the Board should commission independent advice with regard to the consideration of alternative methods including options which seek to address the collective effects of both the existing lines and the new line and which more adequately balances the issues of cost and environmental impacts.

Conclusions

31. The proposal will have significant benefits in regard to the security of electricity supply to Auckland
- 32 Detailed further consideration suggests that in relation to the issues raised in the ARC submission regarding Hunua Ranges Regional Park, Ardmore Aerodrome and potential growth at Hunua Village the proposal does not generate the level of concern that was anticipated at the time the submission was drafted.
- 33 The consideration of alternative methods should have involved more analysis of the balance between cost, electrical engineering considerations and visual landscape effects
- 34 I cannot conclude from the information available whether this could have altered the selection of a 400kV line. I consider that the Board should commission independent advice with regard to the consideration of alternative methods including options which seek to address the collective effects of both the existing lines and the new line and which more adequately balances the issues of cost and environmental impacts

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