

BEFORE THE BOARD OF INQUIRY

IN THE MATTER of the Resource
Management Act 1991

AND

IN THE MATTER of applications for
resource consent and
notices of requirement
by Transpower New
Zealand Limited for the
North Island Grid
Upgrade Project

**STATEMENT OF EVIDENCE OF GLEN MALCOLM PRINCE IN REBUTTAL
ON BEHALF OF TRANSPOWER NEW ZEALAND LIMITED
(Transport/Traffic Issues)**

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Introduction

1. **MY** name is Glen Malcolm Prince. I wish to present rebuttal evidence to the statements of evidence of:
 - (a) Mr Alasdair Gray on behalf of Waikato District Council (**WDC**);
 - (b) Ms Jade Wikaira on behalf of Manukau City Council (**MCC**); and
 - (c) Mr Randal McKenzie and Mr Mark Spring on behalf of Brownhill Road (Whitford) Residents.

2. I address the evidence of each submitter below.

Mr Alasdair Gray (WDC) (Submission Number 1200)

3. **HAVING** read Mr Gray's evidence, I consider that it is important to provide comment and clarification in response to his conclusions. I also wish to respond to the issue of damage to the pavement.

4. **AT** paragraph 36 of his evidence, Mr Gray states that there is potentially significant variation between the Notice of Requirement documentation and the evidence, particularly with respect to likely heavy vehicle traffic generation and the associated impact on the road network. I agree that the documentation refers to different figures. However, as explained by Mr Rasul and Mr Patrick in their rebuttal evidence, these figures are all based on the range of likely traffic movements. I also note that these figures simply emphasise the significant number of variables at this early stage of the project, many of which will remain uncertain until a construction contract is entered into and detailed site by site methodology is prepared.

5. **WHILE** Mr Gray considers that more information is required to "*provide a realistic basis for planning the project and its management*", I do not consider that any further detail is critical at this early stage. The traffic volumes being considered are not significant in relation to associated capacity of the road network and any short term impacts can be easily mitigated through appropriate consent

conditions. Mr Patrick in his rebuttal evidence, has however provided a further detailed estimate of likely traffic movements.

6. **AT** paragraph 37, Mr Gray has provided examples of conditions which I consider are more than appropriate to protect WDC's interests as a key stakeholder. These conditions include:

(a) Early co-ordination with WDC with respect to access arrangements and temporary traffic management, including:

- (i) Access routes and temporary traffic management proposed; and
- (ii) Locations of entranceways with design standards, visibility etc.

(b) A requirement for Transpower to rectify any construction damage during the construction period, including:

- (i) Pre-construction condition surveys – this is similar to the carriageway condition survey which Transpower has offered MCC (as detailed in paragraphs 184(e) and 253(c) of my evidence in chief); and
- (ii) Reactive road maintenance arrangements, including monitoring and repairs, and whether these repairs will be carried out by Transpower or WDC's nominated maintenance contractor.

7. **IT** is important to note that while it may be apparent that Transpower vehicles might be responsible for maintenance issues in close proximity to the tower accesses (i.e. surface damage as a result of vehicles turning into and out of accesses), the same might not be apparent at remote locations along the routes to the tower sites, as these roads are being used on a daily basis by other heavy vehicles.

8. **AT** paragraph 37(c) of his evidence, Mr Gray raises the associated long term impact on the pavement. Although I am not a pavement specialist, through my professional experience I understand that increased heavy vehicle movements will increase the deterioration rate of a pavement. However, while this is the case, I have never been involved in a hearing where loss of pavement life, due to short

term impacts (i.e. impacts of construction traffic), has been raised by a road controlling authority and in turn resulted in financial compensation. Normally, a road controlling authority requests a developer contribution to take account of the increased long term traffic generation associated with a particular development. In Transpower's case, there are negligible long term impacts.

9. **FROM** WDC's perspective, compensation for loss of pavement life (assuming that such an impact was proven), would appear to be in the nature of a monetary payment. Leaving aside whether it is possible for a financial contribution to be imposed on Transpower, I discuss the issues in relation to such payments below.
10. **THE** issues that I consider would require further consideration include issues of equity and the expectation by WDC that Transpower should be paying for such loss of pavement life, when other activities are not required to make such payments.
11. **MR** Patrick in his rebuttal evidence indicated that there are 111 tower sites within WDC's territory. Furthermore, based on a high level assessment of the potential foundation types (as a result of likely ground conditions), tower type and requirements for stringing the overhead cable, Mr Patrick assumed that construction of the average tower site will require approximately 150 one-way heavy vehicle trips.
12. **MOREOVER**, depending on availability of work crews, construction of the 111 towers could take between 12 and 18 months. Therefore, assuming a construction period of say 15 months, with crews working six days a week, on average WDC could expect around 43 heavy vehicle trips (or 22 heavy vehicles in terms of truck numbers) operating within their network on a daily basis. This is insignificant when compared with the total number of daily trips across the wider WDC road network.
13. **IN** my opinion, construction activities such as mass land development would typically result in a greater number of daily trips on a road network. If WDC have not imposed financial compensation requirements on these short term activities in the past, then it seems unjustified and inequitable to apply such conditions in Transpower's case.

14. I also note that it would not be a straight-forward exercise to calculate the impact on the pavement life caused by Transpower's vehicles. An accurate assessment would need to be carried out. The best time to undertake such an assessment would be when a contractor has been appointed and Transpower and WDC have a clear understanding of the construction methodology including proposed vehicle numbers, vehicle types (i.e. typical axle configurations and loadings) and access routes etc.
15. A suitably qualified pavement specialist would need to carry out an informed assessment based on actual vehicle numbers and pavement loading. In my view, such an assessment should be backed up by pavement testing to determine the current design life and the impact of the works on the residual life of the pavement.
16. **WITHOUT** this vital information, it would be very difficult to make an accurate assessment of the potential impact. Such an accurate assessment is in my view necessary if compensation for an effect is to be determined. In this regard,, the assumptions made by Mr Gray at paragraph 27 of his evidence, may not be accurate.
17. I also note that through Road User Charges, which take account of axle numbers and vehicle weights, Transpower and its contractor will have already paid for 'normal everyday' use of WDC's road network. Therefore, if financial compensation is proven to be justified, in my opinion only the usage over and above 'normal everyday' use, should be taken into consideration when assessing the level of compensation.
18. **IN** conclusion, in the absence of further information, and leaving aside whether such a requirement could be lawfully imposed on Transpower, there does not appear to be any reasonable basis for such a contribution at this point in time.

Ms Jade Wikaira (MCC) (Submission Number 0861)

19. **AT** paragraphs 13 and 14 of Ms Wikaira's revised evidence she refers to the lack of detail provided by Transpower in relation to construction traffic and the short and long term impacts on MCC's road network. From my understanding, Ms Wikaira considers that further assessment, and a commitment to compensation

on the part of Transpower, is required to give MCC assurances that their roading assets will not be adversely affected in the short and longer terms.

20. **AS** mentioned above, until a contractor has been appointed and there is greater clarity about the construction methodology, I consider there is little value in undertaking any further assessment.
21. **MOREOVER**, in paragraphs 81 through 83 of my evidence in chief, I recommend undertaking traffic modelling nearer the time to assess potential delays on the network and help develop Traffic Management Plans to minimise disruptions to road users.
22. **ALSO**, I consider that any short term impacts can be easily mitigated through appropriate consent conditions, such as those mentioned above in paragraph 6.
23. **REGARDING** the longer term impacts and potential compensation, I consider that accurate assessment is best undertaken when a contractor has been appointed and further details of the construction methodology are available.
24. **FURTHERMORE**, as with WDC, I consider that any suggestions of compensation would need to be backed up with sound analyses to prove whether there is any basis to the long term impact of Transpower's works on MDC's road network.
25. **FINALLY**, while it is common for road controlling authorities to impose performance bonds on contractors to ensure that pavements are reinstated to the required standard, I have not been involved in any projects where financial compensation for long term impacts, has been imposed on short term works.
26. **AT** paragraph 32 of Ms Wikaira's revised evidence she requests that Transpower "*submit for approval a detailed construction traffic assessment plan (applying to initial construction and subsequent maintenance and renewal)*". I consider that this is an appropriate tool to protect the interests of both MCC and Transpower. However, I consider that such a document is only necessary once a contractor has been appointed.
27. **ONCE** the construction methodology is more evident, Transpower will be in a better position to determine the potential impacts of the construction work on the short and long term integrity of MCC's roading infrastructure. Transpower and

MCC will then have a sound basis for assessing the need for and extent of pre-strengthening or renewal prior to work commencing, and a suitable pavement maintenance regime during construction.

**Mr Randal McKenzie and Mr Mark Spring (Brownhill Road (Whitford) Residents)
(Submission Numbers 1008 and 0739)**

28. **AT** paragraph 23 of their evidence, Messrs McKenzie and Spring indicate that construction works associated with the cable route along Brownhill Road will preclude local residents from using the road for recreational purposes, such as horse riding, walking and running. While this might be the case within the immediate vicinity of the works where the contractor is operating construction plant, this will not apply over the remainder of the route.
29. **FURTHERMORE**, it will be the contractor's responsibility to ensure that the safety of all road users including pedestrians, cyclists and horse riders is maintained at all times. This responsibility will include providing safe passage through the work site. Accordingly, I consider that recreational activities will still be possible within Brownhill Road during construction of the cable route.

Glen Malcolm Prince

15 May 2008