

**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

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**STATEMENT OF EVIDENCE OF PHILIP JAMES PATRICK IN REBUTTAL  
ON BEHALF OF TRANSPOWER NEW ZEALAND LIMITED  
(Construction Processes and Management: Lines)**

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## Introduction

1. **MY** name is Philip James Patrick. I wish to present rebuttal evidence to the statement of evidence of Mr Alasdair Gray on behalf of Waikato District Council (**WDC**) (**Submission number 1200**).
2. **IN** paragraph 9 of his evidence, Mr Gray provides an overview of concerns raised by WDC. His concerns are based on the following:
  - *“The nature of many of the local road pavements that are simply sealed metal roads with no specific design. These appear adequate for typical rural activities with maintenance taking place as required.*
  - *The increase in heavy traffic (volume and loading) and its likely immediate adverse effects on the road surface and long-term effects on the road surface and long-term effects in reducing the expected life of the road before it requires to be renewed.*
  - *WDC’s experience from damaged caused to local roads by construction traffic for Transpower’s Ohinewai Switching Station at Storey Road, Waiterimu. In that case, I understand that there was a significant change in the approach route for construction traffic because a different quarry source was selected. This resulted in significant damage to the surface during construction that required reactive maintenance, as well as a significant change in the amount required to offset the impact of heavy traffic on pavement life.*
  - *The lack of consideration of construction traffic effects or mitigation in the Notice of Requirement Documentation.*
  - *The lack of information on traffic from the decommissioning and removal of the ARI-PAK A line.”*
3. **THE** first point raised by Mr Gray is acknowledged.
4. **THE** second point raised by Mr Gray is covered in the rebuttal evidence of Mr Prince.
5. **IN** relation to the third point raised by Mr Gray, I do not consider that a valid comparison can be drawn in relation to the traffic associated with the Ohinewai Switching Station works and those for the proposed line. The works at the

Ohinewai Switching Station site involved the transportation to the site of approximately 55,000 cubic metres of soil. This equates to approximately 3670 tandem axle dump truck trips of 15 cubic metre capacity (or 7340 heavy vehicle movements). All of these trucks used the same section of road between the quarry and the Ohinewai switching station site.

6. **IN** contrast, the estimated maximum number of one way heavy vehicle trips to tower sites on the proposed line is in the order of 215 (430 vehicle movements), and the likely number of one way heavy vehicle trips for most towers is expected to be in the order of 100 (200 vehicle movements). This is significantly less than the number of heavy vehicle movements associated with the Ohinewai switching station and in my opinion it is not useful to seek to draw a comparison. I also note that unlike the traffic to the Ohinewai switching station, the traffic for any individual tower site could travel from a number of directions and use a number of roads, depending on the source of the material being transported. Accordingly, such traffic may not use the same section of road repeatedly.
7. **IN** terms of the fourth point raised by Mr Gray, the information provided in the NOR about construction traffic effects (on WDC roads) and mitigation is not exhaustive. However, as is indicated a number of times in my first statement of evidence, this is not a matter which Transpower is ignorant or dismissive of. Before commencing construction works there will be consultation with WDC, and all other road controlling authorities along the proposed line route regarding potential impacts on roads. The intention to address these matters is documented in the first statement of evidence of Mr Rasul (paragraphs 37(h) and 58), and in my first statement of evidence, in paragraphs 37, 38 and 104.
8. **MR** Gray's comment (fifth point) about the lack of information on traffic from the decommissioning and removal of the ARI-PAK A line is noted. I did not include a detailed analysis of the traffic volumes (for dismantling the ARI-PAK A line) in my main evidence because in comparison to the other construction works, the volume of traffic generated by the dismantling of the ARI-PAK A line would be relatively small, and the overall impact negligible. There are approximately 140 ARI-PAK A towers in the Waikato District. The number of vehicle trips required for the dismantling of the ARI-PAK A line is estimated to be:

- Light vehicle trips – between 6 and 21 per tower (12 to 42 vehicle movements)
  - Heavy vehicle trips – between 3 and 6 per tower (6 to 12 vehicle movements).
9. **THE** above figures cover all aspects of the dismantling, including; initial reconnaissance for planning, land owner liaison, installation and removal of road and other utility protections, removal of conductors and towers, repairs to and reinstatement of property and final checks on completion of work at each site. A detailed analysis of vehicle numbers is included as **Appendix 1** to my rebuttal evidence.
10. **IN** paragraph 14 of his evidence, Mr Gray comments that “*The effect on roads appears to be described in (VIII, 5.2.8) Effects on Existing Utilities. This includes the potential for damage to the formation of roads, but relies on generic mitigation ...*”. Mr Gray states that “*In my view this is inadequate and too late.*”
11. **THE** paragraph Mr Gray appears to be referring to in the NOR, VIII, 5.2.8 reads “*The potential for damage to buried services occurs during excavation for foundations and the formation of roads.*”
12. **PARAGRAPH** VIII, 5.2.8 does not refer to the “effect on roads”, but to the effect on buried infrastructure in the process of “forming roads”. That is, the process of building roads across farmland has a potential to impact on buried infrastructure. By way of example, a bull dozer engaged in building an access road across a paddock could damage a buried water pipe or telephone line when removing soil from the route of a proposed access road.
13. **THE** mitigation described further on in the NOR VIII, 5.2.8 describes the general measures that would be taken to identify the location of buried infrastructure before commencing road construction works, so as to avoid causing damage to it (the buried infrastructure).
14. **THE** purpose of section VIII, 5.2.8 of the NOR was not to give a detailed analysis of all potential impacts on infrastructure, nor to provide a detailed and precise schedule of mitigation measures that would be implemented by Transpower. The purpose of section VIII, 5.2.8 was to identify (in general

