

**SUBMISSION ON PUBLICLY NOTIFIED REQUIREMENTS FOR
DESIGNATIONS UNDER THE RESOURCE MANAGEMENT ACT 1991
Section 145 of the Resource Management Act 1991
North Island Upgrade Proposal**

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INTRODUCTION

The NOR and Consent Application documentation describes the nature of the public work as being to designate Transpower's proposed North Island Grid Upgrade Project between the Pakuranga and Otahuhu substations and the Whakamaru substation.

Our submission is with respect to the proposed new overhead transmission line from Whakamaru to Brownhill Road, a permanent designation is sought for a strip of land of a minimum width of 65m, along a length of approximately 186 kilometres, and crossing some 297 properties, which are owned mostly by private individuals, partnerships or companies.

We recognise the need for electricity security of supply for Auckland and upgrades to the transmission system are urgently needed.

We strongly oppose the application for the following reasons,

1. General opposition under the over-arching provisions of the RMA

The Proposal as notified and in the absence of any amendments that may be made to it to meet the concerns raised in this submission:

- (a) Will not promote the sustainable management of natural and physical resources and will otherwise be contrary to the purpose and principles of the Act.
- (b) Will not promote or enable the social, economic and cultural well being of those communities in the Auckland and Waikato regions that will be directly and adversely affected by the proposed works.
- (c) Provides for an increase in the capacity of the relevant part of the national grid that:
 - Is not necessary or desirable to meet the reasonably foreseeable needs of future generations.

- Is unnecessary and unjustifiable in terms of current and anticipated future power demands;
 - Will result in the Proposal generating significant and unnecessary additional adverse effects on the environment.
- (d) Does not adequately avoid, remedy or mitigate adverse effects on the environment (section 5(2)(c) of the Act).
- (e) Does not amount to or promote the efficient use and development of resources (section 7(b) of the Act).
- (f) Does not maintain and enhance amenity values or the quality of the environment (sections 7(c) and (f) of the Act).
- (g) Will generate significant adverse effects on the environment.
- (h) Is inconsistent and contrary to relevant regional and district policy statements and plans (section 171(a) of the Act).
- (i) Fails to give adequate consideration to alternative sites, routes, or methods of undertaking the work (section 171(b) of the Act).
- (j) Is not reasonably necessary for achieving Transpower's objectives for which the designation is sought (section 171 (c) of the Act).

2. Visual impact

There is an undeniable visual impact from installation of above ground electricity transmission services. The severity of that impact will be great for the Paparimu Valley as the proposed line cross the valley diagonally adjacent to the existing lines which are only 27 –37 meters high. Environment Waikato have notified all individual property owners and occupiers of this proposal on the basis of expert assessment that 2.5 kilometres either side of the centre line is the zone of potentially significant adverse visual impact.

The scale of the proposed lattice towers (having regard to the various dimensions of the towers including a maximum height of 70m) is significantly greater than that of existing pylons that cross the Paparimu valley. That scale, in conjunction with the decision to implement a design with capacity for 400kV lines, that is unlikely to ever be used at 400 kv, will generate significantly greater adverse visual effects over a significantly larger area than would otherwise be the case. The adverse visual and amenity related impacts associated with the overhead line sections of the Proposal are significant and unnecessary

The subjective nature of visual impact assessment and the number of affected properties makes it extremely difficult for individual landowners to obtain or present expert evidence about their individual situation. A cost effective approach to this aspect of the project would be an independent critique of the expert assessments commissioned by Transpower.

3. Adverse health effects from electro-magnetic radiation

Scientific and epidemiological evidence does not discount the possibility that prolonged exposure to elevated electro-magnetic fields ("EMF") represent a long term risk to health.

Transpower as the proponent of a project with uncertain and/or cumulative adverse effects should be required to prove its proposal is safe on a precautionary basis, including the extent to which the additional involuntary exposure arising from Transpower's proposals adds to any EMF voluntarily incurred by individuals. Specifically, if EMF represents a long term health risk an individual may choose to incur that risk where there is a direct benefit, for example, in operating an electric blanket, VDU etc. Imposition of an additional or additive risk through compulsory installation of lines in proximity to dwelling houses represents an additional risk for which the individual derives no benefit. Paparimu residents contend that the onus of responsibility on the proponent of an imposed risk to demonstrate safety is greater than where an individual derives a direct benefit.

There is a direct cost to Paparimu residents which accrues where a perception of risk exists. The fact that property buyers perceive EMF as a risk will diminish the capital value of a property affected upon by Transpower's proposal.

4. Reverse sensitivity

A generic approach to the determination of adverse effects of Transpower's proposal constrains a more detailed and site specific consideration of the proposal at the local and regional level. The impact of reverse sensitivity on Paparimu landowners and occupiers is acknowledged by Transpower through its assessment of noise effects and its expectation that the presence of a line necessitates its direct involvement in resource consent applications associated with land use and land use change.

The expectation that the line, if established, will continue in existence in perpetuity and could be utilised for expanded electricity transmission and/or alternative network utilities requires the imposition of a condition or conditions requiring that current and future adverse effects be avoided, remedied or mitigated at Transpower's cost.

For example, Transpower appears to consider that aerial application of fertiliser in the vicinity of its infrastructure represents an unacceptable corrosion hazard. Whether this is in fact the case is unknown. However, the fact that such a risk may exist suggests any decision in favour of Transpower's proposal should provide for changes in technology, epidemiology or other circumstances.

The provision of a transmission corridor of sufficient width is necessary to eliminate any future request or requirement for Transpower to be involved in resource consenting processes associated with adjoining landowners' properties.

Paparimu residents are uncertain what distance from the centre of a transmission corridor would be required to reduce the measurable EMF effect to zero but we suggest EMF effects may represent an alternative or additional means of determining a reasonable width of corridor.

5. Landowner liability for transmission corridor "outage" and easement agreements

Liability on the part of landowners for "outage" could arise. Disruption to significant pieces of the electricity network could arguably result in liabilities of millions of dollars per day. Compensation for an uncapped liability in perpetuity of potentially millions of dollars exceeds the full freehold value of land.

Transpower has proposed an easement width of a total of 65 metres. Pine forests at or near maturity have an average height of 40 metres, suggesting a corridor of at least 100 meters. Trees grow towards light with the consequence that trees on either edge of a transmission corridor will be devalued by heavy branching and develop a characteristic lean towards the centre of a transmission corridor. Transpower advise that smoke columns and other sources of particulate can result in arcing and similar disruption to electricity transmission if occurring within 500 metres of a transmission corridor. On this basis the zone of adverse impact of a transmission corridor on pre-existing land use is upwards of one kilometre in width rather than the nominated 65 metres.

The scale of the Proposal, in conjunction with the decision to implement a design with capacity for a 400kV system when only a 220kV system is to be implemented, will generate significantly greater adverse visual effects than would otherwise be necessary to implement the proposal.

Transpower does not have systems and procedures in place to resolve issues of indemnity of landowners, liability of landowners and compensation for Papanui landowners across whose land the proposed lines are to run.

In some of the draft agreements for land access offered up by Transpower there is no provision to indemnify landowners for consequential losses which they might suffer, while in others the provision for compensation for damage to stock, crops, pasture and other vegetation is inadequate.

Transpower continues to assert that liability on the part of Papanui landowners for outage of the lines may arise in the event that maintenance by and at the cost of the landowner is not undertaken. It would seem that disruption to the electricity network could result in huge liabilities falling on the landowner. Compensation for such a liability in perpetuity is very likely to exceed the freehold value of the land over which the lines pass.

The Electricity Act 1992 presumes that new electricity infrastructure and the upgrade of existing electricity infrastructure will occur only after agreement is reached with the affected land owner. Transpower has refused to finalise any standard form of easement on terms that acceptable to landowners. Transpower has expressly rejected any suggestion that it accept liability for route maintenance and "outage", contending that there is no risk of liability accruing to land owners and that a liability of the magnitude of a major outage in perpetuity is an unreasonable impost on a line owner.

Transpower has consistently refused to enter into any agreement that would properly compensate Papanui land owners for the use made by Transpower of their land. Instead, Transpower proposes only that the compensation payable "... should reflect any difference between the current value of the property (ie before construction of the work), and the value of the property once the easement is in place (ie after construction of the work)".

An uncapped perpetual liability imposed on Paparimu landowners is inconsistent with the statutory purpose of enabling them to provide for their well-being and also with the expectation that landowners should be fully compensated for any taking of their property.

6. Generation.

Any major transmission upgrade must be based on reasonable new generation expectations.

This proposal is falsely based solely on outdated 2005 SOO demand predictions when the 2007 SOO demand predictions must be used and totally ignores future generation scenarios.

There are no generation scenarios that justify the capacity of the proposal.

Power availability in the central North Island is even in more doubt with the recent statement: Genesis Energy said last month that it intends to progressively retire the coal-fired Huntly power station, ultimately to be used for reserve use in drought years.

Serious questions are being raised about replacing Pole 1 of the HVDC converter station at Haywards affecting 540 mw of North Island power.

7. Economic effects

Transpower appears to be unwilling to contemplate constraints on alternative land use in determining the economic impact of the proposed development, so that discussion with respect to compensation is limited to calculation of the impact of a line on current activities and does not include any alternative future use of that land for life style subdivision, horticulture, carbon credit tree farming and so on. Notwithstanding this, Transpower seeks rights to submit in opposition to future applications for alternative uses to protect their interests in an electricity transmission route.

The Electricity Commission's cost benefit analysis expressly excluded RMA and environmental costs of the proposal on the grounds that they were outside the terms of reference of the Commission. Transpower's cost benefit analysis was inadequate because the costs attributed to impacts on landowners assumed a corridor width of only 65 metres. It ignored or overlooked costs such as appropriate allocation of liability for route maintenance costs, outage liability, visual impact, compensation for constraints on surrounding land use and future land use changes.

Transpower's vague information from the NOR Part X, Section 15, Agricultural Impacts says "a farm dairy shed and farm shed are directly on the line route between tower 59 and 60. These will require rebuilding of a new dairy shed, and relocation of the farm shed"

In reality it involves the relocation of the whole farm infrastructure of dairy shed, tanker track, farm races, water supply, effluent disposal, power lines, calf shed, 3 large implement sheds and 2 farm homes with established gardens. This is an example of the under estimated economic costs of the proposal.

Compensation for the transmission corridor must be by a reviewable annual rental, so that there is an ability to adjust the rental to more accurately reflect the loss in land use opportunity as those losses arise and are identifiable over time.

8. Climate change

A developing market in carbon offset credits could motivate landowners to plant trees as a carbon offset for agricultural and other emissions. Imposition of a transmission line across farmland which is in pasture or other low growing plants would preclude that opportunity.

Any obligation to fell and not replant existing trees may incur a carbon emission liability if the tree in question was established before 1990.

Climate change policy is likely to lead to an increase in electricity pricing and a consequential reduction in demand and thus the average annual expansion of electricity distribution infrastructure. This may reduce the need for additional transmission infrastructure in the timeframes contemplated by Transpower as part of this proposal.

9. Conclusion

We are opposed to the designation for the public work that is the subject of the NOR.

The additional costs that Transpower have not accounted for in 3, 4, 5, 7 & 8 will cause the proposal to fail the Grid Investment Test.

There are no generation scenarios that justify the capacity of the proposal.

The Proposal does not promote the sustainable management of natural and physical resources and is contrary to the purpose and principles of the Act. People and the Paparimu communities affected by the Proposal will not be enabled to provide for their social, economic and cultural well being. The increase in the capacity of the national transmission grid provided for in the Proposal is not necessary, desirable or justifiable and will result in significant and unnecessary additional adverse effects on our environment.

Adverse effects on the Paparimu environment are not adequately avoided, remedied or mitigated, and the Proposal is not an efficient use and development of natural and existing physical resources. It does not maintain and enhance amenity values or the quality of the environment and is inconsistent with and contrary to relevant regional and district policy statements and plans.

Inadequate consideration has been given to alternative transmission upgrades, future generation in Auckland and north Auckland, the 2007 SOO lower growth demand forecasts. Transpower can not answer the question "Where is the additional power generation in the Central North Island coming from? The adverse effects of the Proposal on the Paparimu and private interests are more than minor and are not outweighed by the proposal's national benefits. The consultation undertaken in respect of the project has been inadequate, given the scale of the project and the significant use it will make of natural and physical resources. The restrictions and conditions placed on Paparimu landowners by the designations sought are unreasonable.

We recommend that the Board of Inquiry withdraw the Notices of Requirement.

9. The submitter wishes to be heard in support of our submission.

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