

**BEFORE THE MANAWATU-WANGANUI REGIONAL COUNCIL**

**IN THE MATTER** of the Resource  
Management Act 1991

**AND**

**IN THE MATTER** of submissions and  
further submissions  
made by  
**TRANSPower NEW  
ZEALAND LIMITED** on  
the Proposed Horizons  
One Plan – Land -  
Chapters 5 and 12.

**STATEMENT OF EVIDENCE OF DAVID LE MARQUAND ON BEHALF OF  
TRANSPower NEW ZEALAND LIMITED “TRANSPower”**

**1.0 INTRODUCTION**

1.1 My name is David le Marquand and I am a Director of Burton Planning Consultants Limited. My qualifications are a Bachelor and Master of Arts degree in Geography from Auckland University. I have practised resource management for over twenty-eight years: fifteen of those years in Central Government including six years as a Scientist in the Planning Section of the Water and Soil Directorate (MWD) Wellington, and two years as a Policy Analyst and five years as a Senior Policy Analyst with the Ministry for the Environment in Auckland. I have spent the last thirteen years as a Resource Management Consultant with Burton Consultants.

1.2 I have been the Account Manager for Transpower for more than twelve years. In that role I have been responsible for providing advice to Transpower, on a

national basis, on relevant district and regional plan provisions and various resource management issues affecting Transpower operations.

## **BASIS OF EVIDENCE**

- 2.1 My evidence generally supports the submissions and further submissions lodged by Transpower on the Proposed One Plan by Transpower.
- 2.2 I have read and am familiar with the Proposed One Plan provisions, the staff report and relevant background reports in relation to Transpower's submissions and further submissions. My evidence primarily focuses on the Planners Report recommendations on Chapter 5 and 12 as they relate to the concerns of Transpower.
- 2.3 I have read the Code of Conduct for Expert Witnesses issued as part of the Environment Court Practice Notes. I agree to comply with the code and am satisfied the matters I address in my evidence are within my expertise. I am not aware of any material facts that I have omitted that might alter or detract from the opinions I express in my evidence.

## **3.0 SUBMISSIONS ON LAND CHAPTERS 5 AND 12**

### **Submission 265/8 (p 162)**

- 3.1 Transpower sought the following general relief in relation to Land Chapter's 5 and 12:

*Ensure that the vegetation trimming and land disturbance activities necessary for operating, maintaining, replacing and upgrading the integrity of the National Grid are either permitted or not regulated. This can be achieved by the following:*

- 3.2 The staff report has recommended accepting the submission in part. Transpower sought that the Plan provisions relating to vegetation trimming and land disturbance would not require it to obtain an array of unnecessary consents in order to continue to operate the National Grid ("the Grid"). Various forms of relief were proposed. The reasons for the submission and the relief sought are discussed in more detail below.

- 3.3 Transpower is required to operate and maintain the Grid and where necessary to upgrade the existing facilities to meet demand. The Grid in this Region is all above ground and predominantly on towers. Span distances are typically 250-500 metres, although depending on topography can be longer or shorter. Tower heights are typically 25-45m for 110kV and 35-55m for 220kV, although the height of any one particular tower can vary depending upon the topography and the need to maintain safe statutory separation distances. The Grid is predominantly located over private land rather than along roads. The transmission lines within the Region can be expected to traverse almost every type of environment.
- 3.4 The One Plan was notified in August 2007. Since that time there have been a number of key statutory /RMA developments relating to Transpower infrastructure. The most significant being the release of the National Policy Statement on Electricity Transmission (NPSET), which came into force in April 2008. In accordance with section 55(2A)(a) of the RMA, within four years of approval of the NPSET, local authorities are required to notify and process a plan change or review, to give effect as appropriate to the provisions of the NPSET. Until that is done, the NPSET is a relevant consideration to be weighed along with other considerations in achieving the sustainable management purpose of the RMA. Notably the staff report does not make any reference to the NPSET.
- 3.5 The NPSET confirms the operation, maintenance, development and upgrading of the Grid as a matter of national significance. Decision makers are required to recognise and provide for the national, regional and local benefits of a sustainable and efficient transmission network and to provide for its effective operation, maintenance, operation and upgrading. Decision makers must also, when considering measures to avoid, remedy or mitigate adverse environmental effects consider the constraints imposed on achieving those measures by the technical and operational requirements of the Grid. It should also be noted that MfE is currently developing a National Environmental Standard for Electrical Transmission (NESET). This will ultimately proscribe an envelope of acceptable effects arising from the transmission of electricity to be included in regional and district plans and measures necessary to control adverse effects on transmission infrastructure

(reverse sensitivity). I note in particular that policies 1, 2, 3, 5, 8, are of most relevance to this hearing.

- 3.6 In operating a linear network the relevant constraints related to these land matters include Transpower's ability to continue to trim and remove vegetation that grows too close to the transmission lines. Vegetation in too close proximity to transmission lines can cause an outage or flashover<sup>1</sup>.
- 3.7 Transpower inspects lines on approximately a six monthly basis to ensure vegetation does not pose a risk to those lines. Transpower is required, through the Electricity (Hazards from Trees) Regulations 2003, to maintain an effective safe separation distance for all vegetation (approximately 4m). Vegetation trimming and removal is undertaken in accordance with its own standard, which includes ensuring activities are undertaken in accordance with best arboricultural practices. A line that is upgraded can also require additional trimming to provide for any extra conductor sag.
- 3.8 Land disturbance is usually associated with tracks and towers, including:
- for the maintenance of existing tracks providing access to the towers;
  - where a new track is required to gain access to an existing tower, perhaps because land use changes have required a new point of access be secured;
  - where a tower is replaced (a rare event);
  - where tower foundation strengthening is required for maintenance purposes
  - where there is extra loading arising from a line upgrade
- 3.9 Earthworks for a tower are typically of the order of 50m<sup>3</sup> but this can be exceeded if a bench is required to be cut for the tower. However most towers are now constructed without the need for benching.
- 3.10 The staff report has not identified any specific relief in relation to this submission, and has made no explicit reference to the NPSET at any point within the report, although regionally and nationally significant infrastructure

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<sup>1</sup> A *flashover* is the term used to describe a momentary, but major electric arc usually across an insulator string. A flashover or contact with the lines may result in an outage of electricity supply to people, communities and industry. A flashover or contact with the lines may cause mobile plant or equipment to become live resulting in health and safety risks to the public.

has achieved some level of recognition, particularly in some policies. The matters raised in this submission are most relevant in terms of the effects of the rules, which are discussed further below.

**Recommendation:** That the Committee note the context of the submission and the NPSET and give due consideration to this in deliberations upon Transpower submissions.

### **Submission 265/9 (p64 of the staff Report)**

3.11 Transpower sought the following:

*Retain, without further modification Objective 5-1 and in particular parts (d) and (e)*

3.12 The staff report has recommended accepting in part the Transpower submission. No changes are proposed to 5-1 (e). Staff have recommended amending Objective 5-1 (d) as follows:

*(d) The damage to infrastructure\*, in particular roads and rail, ~~and other infrastructure\*~~ caused by landslides and sediment run-off from hill country is minimised.*

3.13 I support the recommendations in relation to submission 265/9 for the reasons given in the staff report, and commend the change of wording in 5-1 (d) to the Committee.

**Recommendation:** That the Committee adopt the staff recommendations in relation to objective 5-1.

### **Submission 265/10 (p 95 of the Staff Report)**

3.14 Transpower sought the following:

*Retain without further modification Policy 5-3 and in particular part (a)(iii).*

3.15 The staff report (page 95) recommends accepting the submission, although it has, in effect, only been accepted in part because the staff report has recommended making the following changes:

*Amend Policy 5-3(a)(iii) to: (iii) the activity is for the purpose of establishing or maintaining a fenceline ~~or other infrastructure\*~~ and there is no reasonable alternative location.*

*Amend Policy 5-3(a) by adding a new sub clause (vii): (vii) the activity is for the purpose of establishing or maintaining infrastructure of regional and national importance as defined in Policy 3-1(a) and there is no reasonable alternative location.*

3.16 The staff report (and in response to other submissions) has taken the step of recommending a new sub clause to Policy 5-3. This refers to infrastructure of regional and national importance. This overall approach is then translated through some other amendments to other policy provisions. I support the reasons given in the staff report for the change. Further, the proposed changes are, in my opinion, compatible with the NPSET and appropriate to include in the Proposed Plan. They will satisfy the intent of Transpower's submission.

**Recommendation:** That the Committee adopt the staff recommendations in relation to Policy 5-3 (a) and note that the decision in relation to Transpower's submission should be accepted in part.

#### **Further submission 532/8 (p105 of the Staff Report)**

3.17 Transpower opposed the submission of the Wanganui Branch of the Green Party (451/6). That submission sought no specific relief but indicated that the exception (for fenceline and infrastructure) should not generally be allowed as it is too easy to abuse. The staff report has recommending rejecting submission 451/6 and has also rejected Transpower's further submission in opposition. The rejection of the further submission in opposition would appear to be an error.

3.18 As indicated above, it is my opinion that it is appropriate to provide an exception for the likes of regionally and nationally significant infrastructure, particularly existing linear networks such as the National Grid. They have an ongoing need to be able to operate efficiently and effectively. Providing the policy exception is in policy terms appropriate as the effects, for Transpower at least, of potential soil erosion are discrete in both location and scale and need to be balanced against the essential nature of the network and its functional desirability to the community. In terms of establishing a new transmission line the route selection process (also likely to be in association with a designation process) will be able to determine the best route in overall environmental terms and will still need to achieve the minimisation objective on accelerated erosion. Further, the exception proposed by staff in relation to policy 5-3 (a) is, in my opinion, compatible with the NPSET.

**Recommendation:** That the Committee accept the staff recommendation to reject submission 451/6 and that it accept Transpower's submission in opposition.

### **Submission 265/12 and Further Submission 523/11 (p320-21 of the Staff Report)**

- 3.19 Transpower sought amendment to the definition of Vegetation Clearance by adding a further exception as follows:

*(d) vegetation trimming and removal required to meet the Electricity (Hazards from Trees) Regulations 2003.*

- 3.20 Transpower also supported the definition proposed by the Tararua District Council as it excluded vegetation clearance relating to maintenance and minor improvements to legally established structures. The staff report has recommended accepting in part both submission and further submission. In response to various submissions and the discussion in relation to regional and national infrastructure, the staff report has recommended (refer p111) amending the definition of vegetation clearance to include the following exception:

*(e) Vegetation clearance for the maintenance of infrastructure\* of regional or national importance as defined in Policy 3-1(a).*

- 3.21 In my opinion the proposed recommended change meets the intent of Transpower's submission. Transpower is required to keep vegetation at safe distances from its network and the proposed exception will ensure that unnecessary consents will not be required.

**Recommendation:** That the Committee accept the staff recommendation to accept in part submissions 265/12 and 523/11 to amend the definition to exempt the maintenance of infrastructure of regional and national importance (as per the proposed definition on p111 of the Staff Report).

### **Submission 265/11 and Further Submission 523/10 (p314 of the Staff report)**

- 3.22 Transpower sought an addition to the wording of the definition of "land disturbance" as follows (new words underlined):

**Land disturbance** means the disturbance of land surfaces by any means

- a. including blading, blasting, contouring, cutting of batters, excavation, ripping, root raking, moving or removing soil or earth. This definition excludes normal maintenance of legally established structures, roads, tracks and railway lines and works on existing transmission assets.

- 3.23 Transpower also supported the definition of land disturbance proposed by the Tararua District Council because it would allow for the likes of some minor upgrading activities. The staff report has recommended rejecting Transpower submission 265/11 and accept it in part its further submission.

3.24 The staff report has made no proposed changes to the definition of land disturbance. On page 335 the staff report notes:

*As discussed in the section of this report, which address Rules 12-3 and 12-4, I consider it appropriate to exclude maintenance of existing infrastructure from having to require resource consent. Rather than amend the definitions of land disturbance, I have recommended that specific exclusions in relation to the relevant rules be inserted into the POP.*

3.25 It should be noted that the existing definition already excludes normal maintenance of legally established activities. Transpower's proposed definition was specifically to recognise the existing transmission network and provide for all those works on an existing line including upgrading activities. In my opinion an explicit reference is valid, particularly in light of the NPSET. An amendment to allow for the likes of minor upgrading on the transmission network as identified in the Tararua submission would require some further clarification on the nature and scope of what would constitute "minor" works to a range of activities. In my opinion, if the Committee chose to pursue a Tararua submission and apply to wider range of infrastructure then this is better addressed through the rules and permitted thresholds. Therefore, while I support the intent of the staff recommendations to make more specific exclusion in the rules, particularly if the intent is to provide for a broader range of infrastructure and explicit reference to "works" on existing lines would allow a way through the rules for various upgrading activities on transmission lines, which is not there at present.

**Recommendation:** That the Committee accept the staff recommendation to in relation to submissions 523/10 and reject the staff recommendation in relation to 265/11 and include the wording proposed in Transpower's submission.

**Submission 265/13, 265/14, 265/15 (p170, 176 and 183 of the Staff Report).**

3.26 Transpower sought that policies 12-1, 12-2 and 12-3 be retained without further modification. The staff report has recommended retaining policy 12-2 and modifying policies 12-1 and 12-3. The staff report has proposed an amendment to delete clauses (b) and (f) and to amend clause (i) of policy 12-1. Staff have also recommended amending policy 12-3 as follows:

*The Regional Council will generally allow vegetation clearance\* or land disturbance\* associated with an activity that is important or essential to the well-being of local communities, the Region or a wider area of New Zealand. Such activities might include, but not be limited to, vegetation clearance\* or*

~~land disturbance\* associated with the provision of infrastructure of regional and national importance (as defined in Policy 3-1) and natural hazard management. And the provision of essential infrastructure.~~

3.27 I support the amendments for the reasons given in the staff report.

**Recommendation:** That the Committee accept the staff recommendation in relation to submissions 265/13, 265/14 and 265/15 and retain policy 12-2 and make the amendments to policy 12-1 and 12-3 as outlined.

### **Submission 265/17 And 265/18 (p 162 Staff Report)**

3.28 Transpower sought, in 265/17 and 265/18, the following:

*Ensure that all the resource maps are included (or at least available e.g. via website) at a scale that clearly identifies their extent on a property-by-property basis.*

*Include a clear acceptable and practicable methodology for specifying how slope angle will be calculated for the purposes of establishing activity status.*

3.29 The staff report makes no recommendation in respect of submission 265/17 and does not discuss the matter further. The resource maps presently included in the Plan are not at a scale that enables a property owner to interrogate the information to ascertain with any certainty the extent upon which their land or assets are potentially affected or subject to a particular overlay. For example in Schedule A Figure A:1 is entitled Properties Containing Highly Erodible land. It is not possible to identify such properties from the map, and neither is there any option for interrogating the database, via the web, to ascertain the extent to which a particular property contains highly erodible land. I accept that there is a focus within the Plan to promote Whole Farm Business Plans (which is a good thing). Many landowners will come to understand erosion issues on their land through that plan process, however, there is a general lack of clarity within the Plan as to how the specific effects and resources referred to in the rules will be identified. The staff report has proposed the replacement of Schedule figure A:1 with a new definition of HEL (p339 of the staff report). This includes a slope assessment methodology and will assist in being able to identify land meeting the criteria. Notwithstanding this, in my opinion, a map that clearly identifies where these areas are will increase certainty. At the very least the plan in Schedule A should be updated and be available at a scale that can be used to function as the overlay map where assessments in accordance with the new HEL definition are needed to make a final determination.

- 3.30 In my opinion the context of these submissions need to also be considered in terms of submission 265/16. The staff report has not referenced this submission and it also does not appear to have been addressed in the planners report for biodiversity and heritage hearings. Submission 265/16 states:

*Delete all provisions (in particular as conditions of the rules) relating to “at risk habitats”, “threatened habitats” and “rare or threatened habitats” until such time as these areas have been appropriately mapped by the Council and introduced to the Plan via way of Variation.*

- 3.31 I note the staff report (p150) states:

*The provisions that relate to at-risk habitats and rare and threatened habitats will be addressed in the Planning Report associated with Chapter 7 – Living Heritage.*

- 3.32 While it may be appropriate to address the issue or concept of “at risk habitats”, “threatened habitats” and “rare or threatened habitats” in the subsequent hearing, it is the reference and use of those matter in the rules of Chapter 12 that are of most concern to Transpower.

- 3.33 Firstly there are no maps identifying where these habitats are. The various staff reports for the Biodiversity Hearing explain the reasons for this, and instead the Plan incorporates criteria by which they can be defined. As indicated the exemption from the definition of vegetation clearance and land disturbance will ensure that the existing lines can be maintained. However the exemptions do not apply to upgrading activities, despite the fact that such activities may have similar effects to maintenance activities. For example a maintenance activity may require a tower to be replaced. An upgrade may require the footings of a tower to be strengthened to take the additional loadings. The amount of any earthworks may well be the same or less for the upgrade activity, yet that upgrade activity could, depending upon location trigger the need for a consent and the maintenance activity be permitted. The permitted activity rule in Chapter 12 only applies if one isn't one of the “other categories” listed. The other categories have conditions and your activity status is therefore determined by whether one is in an “at risk habitat”, “threatened habitat” and “rare or threatened habitat”.

- 3.34 As the Plan only includes criteria to determine those habitats, one has to undertake an assessment to ascertain one's activity status (i.e. whether one is within a particular habitat). To apply the criteria of rare or threatened or at risk habitat, in my opinion, requires the assessment skills of a botanist and/or ecologist. I am concerned at the practicality of operating such a framework when it is determinative of one's activity status, permitted or otherwise. At this stage, because of reasons of cost and accuracy the Council has decided not to map these areas. While this may be expedient for the Council it is very problematic for plan users. For example, Transpower would effectively have to complete a botanical and habitat survey along the relevant line to determine if the proposed works were permitted; if there were some habitat that met the criteria (according to the person doing the assessment) the relevant consent would need to be applied for. Requiring an applicant to carry out Council' mapping is ad hoc, imposes significant costs and is likely to be ultra vires. The process and knowledge is too sophisticated to secure good environmental outcomes as specialists clearly can only undertake it. A further concern with such a high degree of discretion is that should an applicant employ such a specialist person and then proceed on their advice Council or any third party who hold a contrary view can readily challenge them.
- 3.35 The assessment requires a significant degree of discretion and therefore is likely to make the issuance of a certificate of compliance difficult, if not impossible. Furthermore it is my view the rule framework appears to be contrary to the principle established in *Purification Technologies Ltd v Taupo DC W011/95* where it was found that “*classifying uses permitted as of right cannot incorporate value judgements. Reserving a value judgement to the Council is not a condition, which is “specified” in the plan and would be ultra vires. To accept otherwise would impair the integrity and coherence of the hierarchy of classes of activity provided by the RMA*”.
- 3.36 Certainly, in my view, the framework appears to conflict, in part, with the NPSET, While it may well be appropriate in some sensitive environments to require consents for some disturbance activities (e.g. disturbance of an archaeological site) it is not clear how policy 2, 3 and 5 of the NPSET are being given effect to for upgrading. There is already an ongoing effect in and around an existing transmission line. Certainly minor upgrading works are, in

my opinion, unlikely to have any significant effects that may not be expected with various maintenance activities.

3.37 One option (although not explicitly identified in the submissions) but within the scope of 265/8, if the wording to submission 265/11 is not accepted, would be to either include a specific permitted activity rule for upgrading activities or include upgrading as an exemption from the definition of vegetation clearance and land disturbance. A definition of upgrading could be included if considered necessary. Attached, as Appendix A is a generic definition of minor upgrading, which has generally been widely accepted by many jurisdictions, particularly local authorities.

3.38 I am less concerned with the issue in terms of new lines as any preferred route will need to consider the effects along that route. The framework and approach, in relying on criteria only, effectively removes a readily identifiable data source for the region from the Plan. The Plan now fails to alert other parties to what and where such sensitive areas may well be. For example, it will now be very difficult to scope options for new transmission corridors that avoid such habitat areas, without undertaking considerable region wide and very detailed assessment. The consequence would be that the best environmental route option may not be identified at the earliest stages of the process. In my opinion, if one's activity status cannot be generally ascertained by the general public from the Plan, and it relies on a subsequent sophisticated costly assessment, then the efficacy of protection of such sensitive areas may well diminish over time and not contributed to an improvement in environmental outcomes.

3.16 **Recommendation:** That the Committee:

- a) Accept the definition of HEL recommended by staff;
- b) Retain the Figure in Schedule A as an overlay where assessment in accordance with the HEL definition is to be undertaken, however ensure it can be accessed at a scale where individual properties can be identified.
- c) Undertake the following:
  - i. Increase certainty in the application of the rule framework by identifying on maps where the habitat areas of concern are; or

- ii. Delete the Chapter 12 rules and reintroduce appropriate provisions via Variation; or
- iii. Give effect to submission 265/11; and
- iv. Include a specific exemption for upgrading in the definition of vegetation clearance and/or land disturbance.
- v. Include if necessary a definition of upgrading as required.

#### 4.0 **Conclusion**

- 4.1 Transpower submissions have effectively sought to ensure that the operation, maintenance, and upgrading of the National Grid is appropriately recognised and provided for by ensuring that the activity is not unnecessarily fettered by unnecessary constraints.
- 4.2 Since submissions were lodged the National Policy Statement on Electricity Transmission has been issued and also needs to be considered. In my opinion the proposed changes to the policies recommended by Staff are generally supported as outlined in this evidence.
- 4.3 The key outstanding issue relates to the rule framework in Chapter 12, which results in a high degree of uncertainty in being able to define one's activity status. It is necessary to consider whether the framework should continue in its present form. It is recognised that some of the issues relating to the assessment of habitats are likely to be debated further in relation to the Biodiversity Chapter 7 hearings, however they have relevance in this hearing as far as they affect the vegetation and land disturbance rules. In order to give effect to Transpower's submissions and the NPSET it is my opinion that the framework should be reassessed and amended to create more certainty for Plan users. A further option is to provide a more explicit exemption for Transpower within the definitions of vegetation clearance and land disturbance.

David le Marquand

30.06.08

## Appendix A Definition of Minor Upgrading

### **Minor Upgrading**

Minor upgrading means an increase in the carrying capacity, efficiency or security of electricity and associated telecommunication lines, utilising the existing support structures or poles or structures of a similar scale and character, and includes:

- (i) the addition of circuits and conductors;
- (ii) the reconductoring of the line with higher capacity conductors;
- (iii) the resagging of conductors;
- (iv) the addition of longer or more efficient insulators;
- (v) the addition of earthwires, which may contain telecommunication lines, earthpeaks and lightning rods;
- (vi) the addition of electrical fittings;
- (vii) tower replacement in the same location or within the existing alignment of the transmission line corridor;
- (viii) the replacement of existing cross arms with cross arms of an alternative design;
- (ix) an increase in tower height to achieve compliance with the clearance distances specified in NZECP 34:2001 needs to be achieved.

Minor upgrading does not include a change in the voltage of a line unless the line was constructed to operate at a higher voltage, but has been operating at a reduced voltage and there will be no physical change to the line.

Any increase in the power carrying capacity of any line must not result in the magnetic fields generated by the transmission lines exceeding International Commission on Non-Ionising Radiation Protection (ICNIRP) guidelines for 24 hour public exposure.