503
100519035

SCANNED

Submission by Transpower New Zealand Limited on Plan Change 18 – Protected Trees to the Selwyn District Plan

27th May 2010

Keeping the energy flowing

TRANSPOWER

ADDRESS FOR SERVICES

Kathryn Lacey

Burton Planning Consultants Ltd

Level 1, 2-8 Northcroft Street

PO Box 33-817 Takapuna

AUCKLAND 0740

Tel: 09 917 4302

Email: klacey@burtonconsultants.co.nz

Transpower New Zealand Limited The National Grid

APPROVED FOR RELEASE

Nicola Cordner – Environmental Advisor
On behalf of the Environment, Strategy and Approvals Manager

Transpower New Zealand Ltd
PO Box 1021
Wellington 6140

Tel: 04 495 7188

Note: This is not the address for service

SUBMISSION BY TRANSPOWER NEW ZEALAND LTD ON PROPOSED PLAN CHANGE 18 - PROTECTED TREES - TO THE SELWYN DISTRICT PLAN

1. Introduction to Transpower

1.1 Transpower New Zealand Limited (Transpower) is the State Owned Enterprise that plans, builds, maintains and operates New Zealand's high voltage transmission network – the National Grid – which links generators to distribution companies and major industrial users. The grid, which extends from Kaitaia in the North Island down to Tiwai in the South Island, transports electricity throughout New Zealand.

1.2 The National Grid comprises some 13,000 km of transmission lines and some 186 substations. The control centre (located in Wellington) operates a network of some 300 telecommunication sites, most of which operate on a line of sight basis and link together the components that make up the National Grid.

1.3 The following high voltage transmission lines traverse the Selwyn District (refer to Map in Attachment A):

- Benmore - Haywards A - 350kV HVDC double circuit on towers
- Roxburgh - Islington A - 220kV single circuit on towers
- Benmore - Islington A - 220kV single circuit on towers
- Christchurch - Twizel A - 220kV double circuit on towers
- Islington - Springston A - 50/66kV double circuit on towers
- Coleridge - Otira A - 50/66kV AC double circuit line on poles
- Coleridge - Brackendale D - 50/66kV AC double circuit line on poles
- Brackendale - Hororata A - 50/66kV AC double circuit line on towers
- Hororata - Islington E - 110kV AC double circuit line on poles

2. National Policy Statement on Electricity Transmission 2008

2.1 The National Policy Statement on Electricity Transmission 2008 (NPSET) establishes national policy direction this recognises the benefits of transmission. It came into force on 11th April 2008. The NPSET provides guidance to local government for the management and future planning of the National Grid, requiring decision makers to consider, in the

assessment of provisions and/or proposals affecting the Grid, the national significance of a reliable and secure electricity supply, as well as any adverse environmental effects. It also directs local authorities to manage the effects of transmission on third party development, and to manage the effects of that development on the transmission network.

2.2 The NPSET recognises the importance of security of supply for the well being of New Zealand and New Zealanders, and makes it explicit that electricity transmission is to be considered a matter of national significance under the RMA in order to meet the electricity needs of present and future generations of New Zealanders.

2.3 A copy of the NPSET is attached as Attachment B.

3. The National Environment Standards for Electricity Transmission Activities 2009

3.1 The National Environment Standards for Electricity Transmission Activities (NESETA) came into effect on 14 January 2010. The standards:

- specify that transmission activities are permitted, subject to terms and conditions to ensure that these activities do not have significant adverse effects; and
- specify resource consent requirements for transmission activities that do not meet the terms and conditions for permitted activities.

3.2 The NESETA applies to existing National Grid Transmission lines. The standards in the NESETA recognise and provide for the effective operation, maintenance and upgrading, relocation and removal of the existing transmission network, having considered operational constraints and technical requirements. The standards provide a framework of consent requirements and permissions that take into account the policies in the NPSET. The NESETA does not apply to new lines.

3.3 Regulation 30 of the NESETA provides for the trimming, felling or removal of any tree or vegetation in relation to an existing transmission line as a permitted activity if the stated conditions can be satisfied. Stated conditions relate to the following matters:

- Whether a rule restricts its trimming, felling or removal;
- Whether a tree or vegetation is located in a natural area;
- Whether the regional plan controls the used of the land where the tree or vegetation is located for soil conservation or for avoiding or mitigating flooding;
- Whether the tree or vegetation is located on Department of Conservation Land;

- Whether the felling or removal of any tree or vegetation shall would create instability of a slope, land surface, or erosion of bed or bank of water body or coastal marine area; and
- Whether debris from the activity will enter a water body or coastal waters.

3.4 Where the conditions relating to these matters cannot be met, the trimming, felling or removal of any tree or vegetation in relation to existing transmission lines requires either controlled activity consent under Regulation 31 (if it breaches the first two bullet points above and is undertaken to reduce the risk to a transmission line) or otherwise a restricted discretionary activity consent under Regulation 32. Ministry for the Environment Guidance on the NESETA is available at http://www.mfe.govt.nz/publications/rma/nes-electricity-transmission-regulations/.

4. Transpower's Submission on Proposed Plan Change 18 To The Selwyn District Plan

4.1 Transpower generally supports the intent of the Plan Change and seeks to ensure that the Plan Change provides for the trimming of trees and/or vegetation in accordance with the Electricity (Hazards from Trees) Regulations 2003 and where it (or they) may pose a risk to the operation of the transmission line. Furthermore, Transpower seeks to ensure that any provisions of the Plan Change are not inconsistent with the NESETA as discussed in Section 3.

4.2 Vegetation growing too close to existing transmission lines pose very real risks to the operation of the line as a result of flashovers. A flashover[1] can be caused by vegetation coming into contact with the lines and may result in:

- An outage of electricity supply to communities, people and industry; or
- Trees to become live (and catch fire) resulting in safety risks to the public.

4.3 The Electricity Act 1992 provides Transpower with the ability to continue to inspect, maintain (including to replace and upgrade) and operate its high voltage electricity infrastructure as necessary. The Electricity (Hazards from Trees) Regulations 2003 came into force in December 2003. The purpose of the Regulations is to protect the security of supply of electricity and the safety of the public. The Regulations can be found on: http://www.legislation.govt.nz/browse_vw.asp?content-set=pal_regs.

[1] A flashover is the term used to describe a momentary, but major electric arc usually across an insulator string.

4.4 Trees must be located and managed by the tree owner to comply with the Growth Limit Zones between transmission line conductors and trees as prescribed by the Regulations. The Tree Regulations set out the process by which Transpower may do this on behalf of the tree owner. All of Transpower's lines are inspected on approximately a 6-monthly basis to ascertain the potential hazard posed to the National Grid by any vegetation. Pursuant to the Tree Regulations, vegetation that is likely to pose a risk to the integrity of the network is trimmed or sometimes cleared. In some situations, Transpower needs to be able to undertake such works with urgency, in response to a particular situation or incident. Any trimming and/or clearance activities must comply with the provisions of the RMA (Regional and/or District Plan). The provisions of the Plan Change should not impose unnecessary constraints on vegetation trimming and clearance associated with the protection of public safety, the vegetation itself and the National Grid.

4.5 The intent of the Plan Change is to identify and ensure that protected trees remain in good condition in the long term, by encouraging good tree management practices and preventing them being lost due to indiscriminate removal or damage. Protected trees in the Selwyn District are separated into two categories: Category A trees, which have high levels of significance, particularly in relation to heritage values, and Category B trees, which have significance for a range of reasons (i.e. landscape importance. The Plan Change seeks to establish new Objectives, Policies and Rules for Category A and B protected trees.

4.6 The policy framework for the Plan Change provides for physical works on and around identified protected trees for essential services, which includes high voltage transmission lines. Transpower notes that there appear to be no Category A or B trees presently located in close proximity to the existing transmission lines. Nevertheless this could change overtime and it is therefore important there be an appropriate framework in place should additional trees be added to the Schedule over time. Transpower supports the proposed policy framework and seeks that it is retained in the Plan Change, particularly Policy B33.14.

4.7 The Plan Change restricts the use of land in and around a protected tree via the following permitted activity conditions:

3.2.1.4 The use of the land immediately around the protected tree, within the distances defined below is permitted, provided that the health of the tree is not adversely affected and that:
Above ground level
a) there is no installation of any overhead utility service within 10 metres of the base of the tree or within the crown periphery (drip-line), whichever is the greater.
b) there is no construction, addition or replacement of any building within 10 metres from the base of the tree or within the crown periphery (drip-line), whichever is the greater.

c) there is no new impervious surfacing, sealing, paving, soil compaction, or alteration of more than 75mm to the ground level (existing prior to works commencing) within 10 metres from the base of the tree or within the crown periphery (drip-line), whichever is the greater.
d) there is no storage, application or deposition of any chemical or substance that could cause harm to the tree.

Below ground level
e) there is no laying/installation of any underground utility service within 10 metres of the base of the tree or within the crown periphery (drip-line), whichever is the greater.

4.8 The pruning of any tree listed as a Category B tree in Appendix 4, by a Network Utility Operator, where the tree or parts of the tree encroach within the regulatory line clearance distances defined in the Electricity (Hazards from Trees) Regulations 2003, is a controlled activity and a Restricted Discretionary activity for a Category A tree. An activity near a Category B tree that does not comply with Rule 3.2.1.4 requires a Restricted Discretionary Activity consent or non-complying activity consent if near a Category A tree.

4.9 Transpower supports the Rule framework as it generally provides for tree trimming around existing lines via a consent framework that is not inconsistent with the NESETA. Rule 3.2.1.4 restricts certain activities in and around protected trees. Rule 3.2.1.4 a) will apply to new overhead lines. It should be clarified that this Rule does not apply to existing lines and their maintenance and upgrading by making reference to any "new" service.

4.10 New lines locating in close proximity to a Schedule A tree would be non-complying. This is not opposed as there are few such trees within the District and therefore it should be possible to plan any new transmission route that will avoid such vegetation. The NESETA sets out the basis upon which maintenance and upgrading activities will occur.

4.11 Transpower seeks that the Rule framework is generally retained in the Plan Change.

Relief Sought:

1. **Retain without modification Policy B3.3.14 as follows:**
   Policy B3.3.14
   To enable, where appropriate, some physical works on and around identified protected trees for normal cultivation/maintenance, safety purposes or essential services.

2. **Retain without further modification the following explanation:**
   Policy B3.3.13 establishes a system to protect those trees that have been identified as having

significance. These trees would be subject to rules within the Plan to ensure that development and activities close to the trees do not affect their health or the values for which they have been identified. Associated Policy B3.3.14 provides for some situations where urgent works may be necessary for public safety or essential services (including roading networks, power and telecommunications networks and infrastructure services such as water supply and wastewater disposal). This too will be incorporated into the rules.

3. **Retain without further modification Rule 3.2.1.4 except for the following modification (underlined) in order to ensure that the provision does not inadvertently constrain maintenance and upgrading activities:**

   3.2.1.4 The use of the land immediately around the protected tree, within the distances defined below is permitted, provided that the health of the tree is not adversely affected and that:
   Above ground level
   a) there is no installation of any <u>new</u> overhead utility service within 10 metres of the base of the tree or within the crown periphery (drip-line), whichever is the greater.

4. **Retain without further modification the following controlled activity in Section 3.2 Protected Trees:**

   3.2.2.2 Pruning of any tree listed as a Category B tree in Appendix 4, by a Network Utility Operator where the tree or parts of the tree encroach within the regulatory line clearance distances defined in the Electricity (Hazards from Trees) Regulations 2003 or are subject to the Telecommunications Act 2001; provided that the work is carried out by qualified/competent arborists to approved arboricultural industry standards.

5. **Retain without further modification the following restricted discretionary activity in Section 3.2 Protected Trees:**

   3.2.4.4 Pruning of any tree listed as a Category A tree in Appendix 4, by a Network Utility Operator where the tree or parts of the tree encroach within the regulatory line clearance distances defined in the in the Electricity (Hazards from Trees) Regulations 2003 or are subject to the Telecommunications Act 2001; provided that the work is carried out by qualified/competent arborists to approved arboricultural industry standards.

6. **Retain without further modification the following controlled activity in Section 15.1:**
   15.1.2.2 Pruning of any tree listed as a Category B tree in Appendix 4, by a Network Utility Operator where the tree or parts of the tree encroach within the regulatory line clearance distances defined in the Electricity (Hazards from Trees) Regulations 2003 or are subject to the Telecommunications Act 2001; provided that the work is carried out by

qualified/competent arborists to approved arboricultural industry standards.

7. **Retain without further modification the following restricted discretionary activity in Section 15.1:**

   15.1.4.4 Pruning of any tree listed as a Category A tree in Appendix 4, by a Network Utility Operator where the tree or parts of the tree encroach within the regulatory line clearance distances defined in the in the Electricity (Hazards from Trees) Regulations 2003 or are subject to the Telecommunications Act 2001; provided that the work is carried out by qualified/competent arborists to approved arboricultural industry standards.

8. **Retain without further modification the following controlled activity in Section 2.3 Protected Trees:**

   2.3.2.2 Pruning of any tree listed as a Category B tree in Appendix 4, by a Network Utility Operator where the tree or parts of the tree encroach within the regulatory line clearance distances defined in the Electricity (Hazards from Trees) Regulations 2003 or are subject to the Telecommunications Act 2001; provided that the work is carried out by qualified/competent arborists to approved arboricultural industry standards.

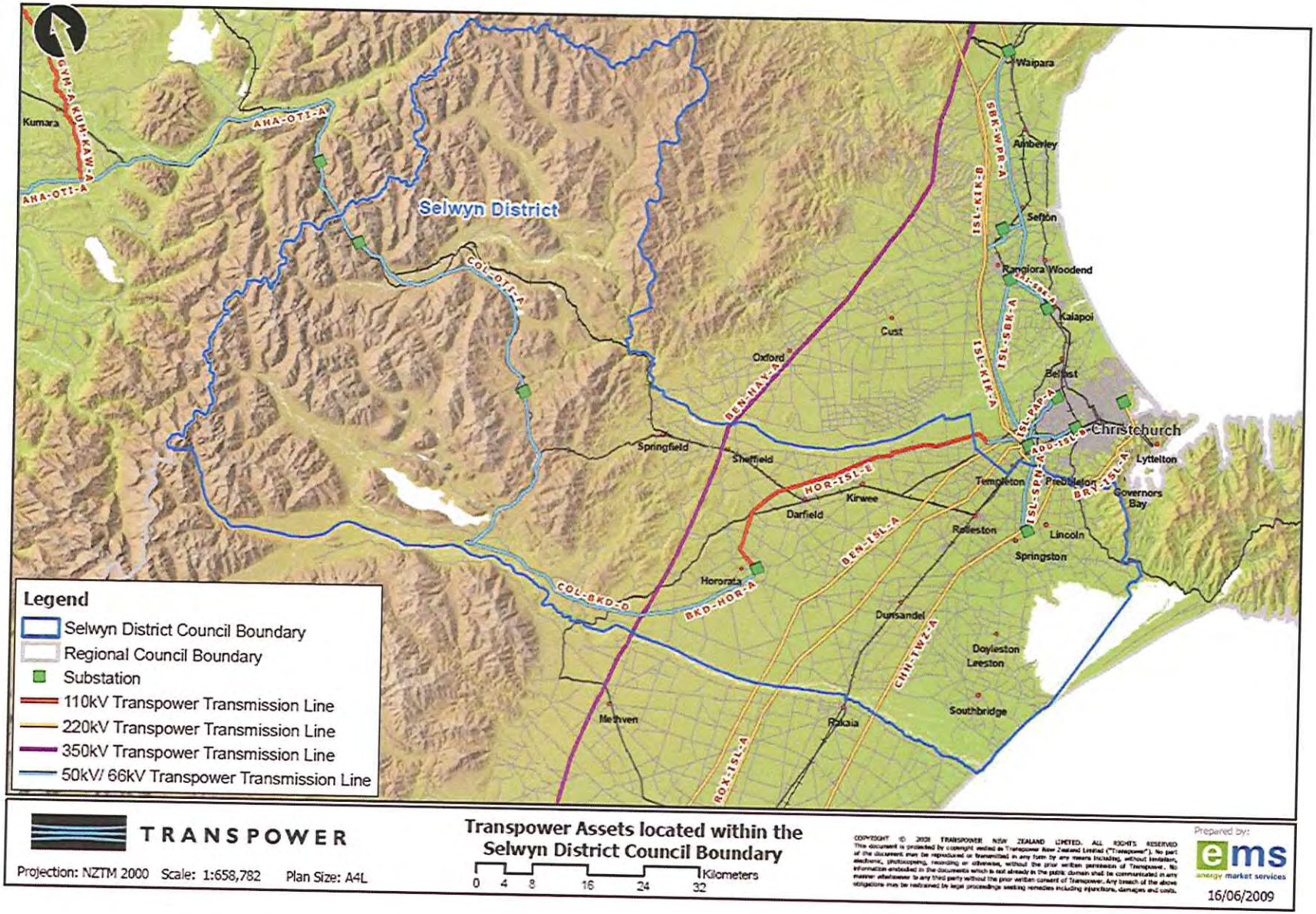
9. **Retain without further modification the following restricted discretionary activity in Section 2.3 Protected Trees:**

   2.3.4.4 Pruning of any tree listed as a Category A tree in Appendix 4, by a Network Utility Operator where the tree or parts of the tree encroach within the regulatory line clearance distances defined in the Electricity (Hazards from Trees) Regulations 2003 or are subject to the Telecommunications Act 2001; provided that the work is carried out by qualified/competent arborists to approved arboricultural industry standards.

Attachment A
Transpower Assets in the Selwyn District

Attachment B

National Policy Statement for Electricity Transmission



TRANSPOWER

Projection: NZTM 2000 Scale: 1:658,782 Plan Size: A4L

Transpower Assets located within the Selwyn District Council Boundary

0 4 8 16 24 32 Kilometers

Prepared by: ems energy market services

16/06/2009

NATIONAL POLICY STATEMENT

on Electricity Transmission

Issued by notice in the Gazette on 13 March 2008

CONTENTS

newzealand.govt.nz

Preamble

This national policy statement sets out the objective and policies to enable the management of the effects of the electricity transmission network under the Resource Management Act 1991.

In accordance with section 55(2A)(a) of the Act, and within four years of approval of this national policy statement, local authorities are to notify and process under the First Schedule to the Act a plan change or review to give effect as appropriate to the provisions of this national policy statement.

The efficient transmission of electricity on the national grid plays a vital role in the well-being of New Zealand, its people and the environment. Electricity transmission has special characteristics that create challenges for its management under the Act. These include:

- Transporting electricity efficiently over long distances requires support structures (towers or poles), conductors, wires and cables, and sub-stations and switching stations.
- These facilities can create environmental effects of a local, regional and national scale. Some of these effects can be significant.
- The transmission network is an extensive and linear system which makes it important that there are consistent policy and regulatory approaches by local authorities.
- Technical, operational and security requirements associated with the transmission network can limit the extent to which it is feasible to avoid or mitigate all adverse environmental effects.
- The operation, maintenance and future development of the transmission network can be significantly constrained by the adverse environmental impact of third party activities and development.
- The adverse environmental effects of the transmission network are often local – while the benefits may be in a different locality and/or extend beyond the local to the regional and national – making it important that those exercising powers and functions under the Act balance local, regional and national environmental effects (positive and negative).
- Ongoing investment in the transmission network and significant upgrades are expected to be required to meet the demand for electricity and to meet the Government's objective for a renewable energy future, therefore strategic planning to provide for transmission infrastructure is required.

The national policy statement is to be applied by decision-makers under the Act. The objective and policies are intended to guide decision-makers in drafting plan rules, in making decisions on the notification of the resource consents and in the determination of resource consent applications, and in considering notices of requirement for designations for transmission activities.

However, the national policy statement is not meant to be a substitute for, or prevail over, the Act's statutory purpose or the statutory tests already in existence. Further, the national policy statement is subject to Part 2 of the Act.

For decision-makers under the Act, the national policy statement is intended to be a relevant consideration to be weighed along with other considerations in achieving the sustainable management purpose of the Act.

This preamble may assist the interpretation of the national policy statement, where this is needed to resolve uncertainty.

1. Title

This national policy statement is the National Policy Statement on Electricity Transmission 2008.

2. Commencement

This national policy statement comes into force on the 28th day after the date on which it is notified in the *Gazette*.

3. Interpretation

In this national policy statement, unless the context otherwise requires:

Act means the Resource Management Act 1991.

Decision-makers means all persons exercising functions and powers under the Act.

Electricity transmission network, electricity transmission and transmission activities/assets/infrastructure/resources/system all mean part of the national grid of transmission lines and cables (aerial, underground and undersea, including the high-voltage direct current link), stations and sub-stations and other works used to connect grid injection points and grid exit points to convey electricity throughout the North and South Islands of New Zealand.

National environmental standard means a standard prescribed by regulations made under the Act.

National grid means the assets used or owned by Transpower NZ Limited.
Sensitive activities includes schools, residential buildings and hospitals.

4. Matter of national significance

The matter of national significance to which this national policy statement applies is the need to operate, maintain, develop and upgrade the electricity transmission network.

5. Objective

To recognise the national significance of the electricity transmission network by facilitating the operation, maintenance and upgrade of the existing transmission network and the establishment of new transmission resources to meet the needs of present and future generations, while:

- managing the adverse environmental effects of the network; and
- managing the adverse effects of other activities on the network.

6. Recognition of the national benefits of transmission

POLICY 1

In achieving the purpose of the Act, decision-makers must recognise and provide for the national, regional and local benefits of sustainable, secure and efficient electricity transmission. The benefits relevant to any particular project or development of the electricity transmission network may include:

i) maintained or improved security of supply of electricity; or

ii) efficient transfer of energy through a reduction of transmission losses; or

iii) the facilitation of the use and development of new electricity generation, including renewable generation which assists in the management of the effects of climate change; or

iv) enhanced supply of electricity through the removal of points of congestion.

The above list of benefits is not intended to be exhaustive and a particular policy, plan, project or development may have or recognise other benefits.

7. Managing the environmental effects of transmission

POLICY 2

In achieving the purpose of the Act, decision-makers must recognise and provide for the effective operation, maintenance, upgrading and development of the electricity transmission network.

POLICY 3

When considering measures to avoid, remedy or mitigate adverse environmental effects of transmission activities, decision-makers must consider the constraints imposed on achieving those measures by the technical and operational requirements of the network.

POLICY 4

When considering the environmental effects of new transmission infrastructure or major upgrades of existing transmission infrastructure, decision-makers must have regard to the extent to which any adverse effects have been avoided, remedied or mitigated by the route, site and method selection.

POLICY 5

When considering the environmental effects of transmission activities associated with transmission assets, decision-makers must enable the reasonable operational, maintenance and minor upgrade requirements of established electricity transmission assets.

POLICY 6
Substantial upgrades of transmission infrastructure should be used as an opportunity to reduce existing adverse effects of transmission including such effects on sensitive activities where appropriate.

POLICY 7
Planning and development of the transmission system should minimise adverse effects on urban amenity and avoid adverse effects on town centres and areas of high recreational value or amenity and existing sensitive activities.

POLICY 8
In rural environments, planning and development of the transmission system should seek to avoid adverse effects on outstanding natural landscapes, areas of high natural character and areas of high recreation value and amenity and existing sensitive activities.

POLICY 9
Provisions dealing with electric and magnetic fields associated with the electricity transmission network must be based on the International Commission on Non-ioninsing Radiation Protection *Guidelines for limiting exposure to time varying electric magnetic fields (up to 300 GHz)* (Health Physics, 1998, 74(4): 494-522) and recommendations from the World Health Organisation monograph *Environment Health Criteria* (No 328, June 2007) or revisions thereof and any applicable New Zealand standards or national environmental standards.

8. Managing the adverse effects of third parties on the transmission network

POLICY 10
In achieving the purpose of the Act, decision-makers must to the extent reasonably possible manage activities to avoid reverse sensitivity effects on the electricity transmission network and to ensure that operation, maintenance, upgrading, and development of the electricity transmission network is not compromised.

POLICY 11
Local authorities must consult with the operator of the national grid, to identify an appropriate buffer corridor within which it can be expected that sensitive activities will generally not be provided for in plans and/or given resource consent. To assist local authorities to identify these corridors, they may request the operator of the national grid to provide local authorities with its medium to long-term plans for the alteration or upgrading of each affected section of the national grid (so as to facilitate the long-term strategic planning of the grid).

9. Maps

POLICY 12
Territorial authorities must identify the electricity transmission network on their relevant planning maps whether or not the network is designated.

10. Long-term strategic planning for transmission assets

POLICY 13
Decision-makers must recognise that the designation process can facilitate long-term planning for the development, operation and maintenance of electricity transmission infrastructure.

POLICY 14
Regional councils must include objectives, policies and methods to facilitate long-term planning for investment in transmission infrastructure and its integration with land uses.

Explanatory note
This note is not part of the national policy statement but is intended to indicate its general effect

This national policy statement comes into force 28 days after the date of its notification in the *Gazette*. It provides that electricity transmission is a matter of national significance under the Resource Management Act 1991 and prescribes an objective and policies to guide the making of resource management decisions.

The national policy statement requires local authorities to give effect to its provisions in plans made under the Resource Management Act 1991 by initiating a plan change or review within four years of its approval.