

Office of the Minister for the Environment

Cabinet Business Committee

Approval of the National Policy Statement on Electricity Transmission

Proposal

1. I seek Cabinet's approval of the attached National Policy Statement on Electricity Transmission (National Policy Statement), prepared under the Resource Management Act 1991. I also seek authorisation to submit the National Policy Statement to the Executive Council for approval.

Executive summary

2. I have considered the report and recommendations of the Board of Inquiry (the Board) on the proposed National Policy Statement, including its recommended revised National Policy Statement. I have decided to accept the Board's recommended National Policy Statement, subject small number of editorial and technical changes.
3. As required by section 32 of the Resource Management Act, I have carried-out a further evaluation of the Board's recommended National Policy Statement. I am satisfied, as a result of the evaluation, that the recommended National Policy Statement is the most appropriate way of achieving the purpose of the RMA – to promote the sustainable management of natural and physical resources.
4. I now intend to recommend the National Policy Statement (Appendix 2) to the Governor-General in Council for his approval, and proceed to issue the National Policy Statement by notice in the *New Zealand Gazette*.

Background

5. The 2004 review of the Resource Management Act found that lack of a clear statement on national interest on infrastructure led to insufficient weight being given to infrastructure of national significance in Resource Management Act plans and in local decision making.
6. In November 2004, a Reference Group was set up to report back on the value of national guidance for electricity transmission under the Resource Management Act. The Reference Group's report, *The Merits and Potential Scope of National Guidance on the Management of Electricity Transmission under the Resource Management Act* (December 2005), concluded that there would be likely net benefits from a National Policy Statement, and National Environmental Standards, on electricity transmission.
7. In November 2006, the Cabinet Business Committee noted a draft proposed National Policy Statement had been prepared [CBC Min (06) 20/19 refers]. Cabinet Business Committee also noted the intention to appoint the Honourable Peter Salmon QC (Chairman), Russell Howie

and Prue Kapua to be the Board of Inquiry (the Board) on the proposed National Policy Statement [CBC Min (06) 20/2 refers].

8. In April 2007, Cabinet approved the proposed National Policy Statement and its public notification by the Board [CAB Min (07) 13/4 refers].
9. The Board notified the proposed National Policy Statement in May 2007. Seventy-one submissions were received and hearings were conducted during August 2007. The Board heard extensive submissions representing different points of view and received several 'alternative' National Policy Statement proposals from submitters, including Transpower.
10. The Board submitted its report and recommendations on the National Policy Statement to me in November 2007. I have considered the report and recommendations, as required under section 52 of the Resource Management Act. The Board's report and recommendations are attached in full as Appendix 1.

Policy – the Board's recommended National Policy Statement

11. National Policy Statements are statutory instruments to help local authorities and decide how competing national benefits and local costs should be balanced.
12. The National Policy Statement recommended by the Board states that electricity transmission is a matter of national significance in terms of the Resource Management Act. The Objective of the National Policy Statement is:

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.*

13. The National Policy Statement also has 14 policies designed to achieve the Objective.
14. The Board has recommended the introduction of seven substantially new policies. These new policies address distinctions between rural and urban environments and sensitive activities, the activities of third parties and strategic planning for the transmission network. These new policies, and the revised policy on electric and magnetic fields, are discussed below.

Managing sensitive activities and urban and rural environments

15. Three policies are aimed at reducing and avoiding the adverse effects of transmission activities. These are:
- Policy 6 encourages minimising the adverse effects of substantial transmission upgrades, including adverse effects on 'sensitive' activities (including residential, schools and hospitals).
 - Policy 7 seeks to minimise the adverse effects of transmission activities in urban amenity and avoid adverse effects on town centres, areas of high recreational value or amenity and existing sensitive activities.
 - Policy 8 seeks to avoid adverse effects of transmission activities on outstanding natural landscapes, areas of high natural character, areas of high recreational value or amenity and existing sensitive activities.

Managing third party activities

16. Two further policies (10 and 11) direct councils to manage the activities of third parties that can have adverse effects on transmission activities (eg. quarrying) and to identify a buffer corridor for transmission activities that should generally be free of sensitive activities. Both policies will help manage reverse sensitivity problems (eg. the owner of a new house complaining about noise from an existing substation).
17. The draft National Environment Standard proposals, currently under development, were not publicly released until after the Board hearings, and were, therefore, not considered by the Board.
18. The Board therefore has taken a comprehensive approach on electricity transmission that covers areas that a National Environmental Standard might also regulate. Officials' assessment is that the Board's proposed National Policy Statement sets a high-level objective and policies that can complement a National Environmental Standard.

Strategic planning of transmission development

19. Two new policies (13 and 14) direct:
- Decision-makers to recognise that designations can facilitate long-term planning of transmission corridors, and
 - Regional councils to include objectives, policies and methods to facilitate long-term planning for investment in transmission infrastructure and its integration with other land uses.

Managing electric and magnetic fields

20. The Board recommends that:
- The best guidance we have on acceptable exposure to electric and magnetic fields from transmission lines is the Guidelines produced by the International Commission on Non-Ionising Radiation Protection (ICNIRP) which were endorsed by the World Health Organisation (WHO) in June 2007

- The Government should continue to review the potential for adverse health effects from electric and magnetic fields. (This process is currently undertaken by the Interagency Committee on the Health Effects of Non-ionising Fields, managed by the Ministry of Health.)
 - Where it is practical and economic, the general approach should be to protect the public from average exposure to relatively strong magnetic fields.
21. The Board, therefore, has recommended that councils must base any provisions dealing with electric and magnetic fields on the ICNIRP guidelines, complemented by the WHO recommendations on electric and magnetic fields (which refer to taking low or zero cost measures to reduce exposure to electric and magnetic fields), and any applicable National Environmental Standard or New Zealand standards on electric and magnetic fields (see Policy 9).
 22. The Ministry of Health agree with this Policy, which reflects its current recommendations.

Implementation of the National Policy Statement

23. Decision-makers on electricity transmission network activities, and related resource management matters, will be required to have regard to the National Policy Statement. Furthermore, local authorities will have to develop local plan provisions to give effect to the National Policy Statement.
24. There will be no direct fees or charges as a part of the National Policy Statement. However, there will be costs and benefits – some monetary – resulting from the National Policy Statement and its implementation. These matters are discussed further in the attached regulatory impact assessment (Appendix 3).
25. Decision-makers must have regard to the National Policy Statement in resource management decision making (immediately) and give effect to the National Policy Statement provisions through local plan changes (within four years).
26. The costs to councils can be minimised by incorporating changes into the “second generation” plan review cycle which many councils are currently embarking on. Non-statutory guidance on the National Policy Statement will be prepared to assist the public and decision-makers.

Evaluation of the National Policy Statement under section 32

27. As required by section 32 of the Resource Management Act, I have carried out an evaluation of the extent to which the Objective of the National Policy Statement is the most appropriate way to achieve the purpose of the Resource Management Act, and whether the policies are the most appropriate for achieving the Objective.
28. The evaluation shows that the Objective is appropriate and policies are likely to be efficient and effective.

29. The evaluation also shows that the implementation of the National Policy Statement will result in both costs and benefits. The rules and methods adopted by councils to give effect to the National Policy Statement will result in costs.
30. The main direct costs will be to landowners near to transmission activities who will be further affected by restrictions on the way they use/develop their land.
31. There will be direct costs to councils in developing, notifying and enforcing changes to their plans to give effect to the provisions of the National Policy Statement.
32. The main benefits will be to Transpower, because councils will now be required to have regard to the national significance of electricity transmission when managing land uses under the Resource Management Act.
33. The expected costs and benefits of the National Policy Statement are summarised in the attached regulatory impact statement (Appendix 3).

Contribution to other Government policy

34. The National Policy Statement will support the New Zealand Energy Strategy, and the climate change adaptation strategy, because it acknowledges new transmission network capacity for new 'renewable' electricity generation development.
35. Other national policy statements (eg. New Zealand Coastal Policy Statement) will be read together with the National Policy Statement on Electricity Transmission – they will not be overridden by it.

Risks

36. There may be a perception that the Government is pushing ahead to facilitate national transmission infrastructure development at the expense of landowners and local communities. These perceptions will need to be addressed through the information and publicity materials put out at the time the National Policy Statement is gazetted.
37. The development of local rules and methods through the First Schedule of the Resource Management Act will allow landowners and other affected parties to represent their views to councils.

My decisions

38. I believe that the Board's recommended National Policy Statement offers a comprehensive and directive policy statement on the management of electricity transmission network activities. The Board's report considers the main areas of interest and concern of submitters in arriving at its recommended National Policy Statement. The National Policy Statement proposed for recommendation to the Governor-General is attached as Appendix 2.
39. I believe the Board's National Policy Statement is sound. The attached regulatory impact statement (Appendix 3) and section 32 evaluation of the National Policy Statement support this view.

40. As mentioned, there will be costs associated with the National Policy Statement and its implementation. However, I consider that overall the benefits will outweigh the costs.
41. On balance, the main purpose of the National Policy Statement will be to make it explicit that electricity transmission – and the national benefits it provides – is a matter of national significance under the Resource Management Act.
42. The effect of a National Policy Statement will be to require decision-makers to consider the national significance of electricity transmission activities when assessing proposals that affect the national grid. It is expected that, on some occasions, the national benefit should outweigh local adverse effects in reaching a decision.

Timing

43. The National Policy Statement will be notified in the *New Zealand Gazette* and will take effect 28 days after notification.

Compliance

44. The National Policy Statement complies with
 1. The principles of the Treaty of Waitangi;
 2. The rights and freedoms contained in the New Zealand Bill of Rights Act 1990 or the Human Rights Act 1993;
 3. The principles and guidelines set out in the Privacy Act 1993;
 4. Relevant international standards and obligations; and
 5. The *LAC Guidelines: Guidelines on Process and Content of Legislation*.

Regulations Review Committee

45. There are no grounds for the Regulations Review Committee to draw the National Policy Statement to the attention of the House under Standing Order 315.

Certification by Departmental Solicitor

46. The National Policy Statement has been certified by the Chief Legal Adviser to the Ministry for the Environment as being in order for submission to Cabinet.

Publicity

47. A publicity package will be developed for the National Policy Statement.

Consultation

48. The National Policy Statement has been developed through a Board of Inquiry process that called for public submissions, and conducted hearings.
49. The following agencies have been consulted on this paper and their views taken into account: Department of Building and Housing, Department of Internal Affairs, Department of Conservation, Land Information New Zealand, Ministry of Agriculture and Forestry, Ministry of Economic Development, Ministry of Health/National Radiation Laboratory, Te Puni Kōkiri, Treasury and Ministry of Transport.
50. The Department of the Prime Minister and Cabinet has also been advised about this paper.

Comments from Departments

51. The Ministry of Economic Development, the Treasury and the Department of Internal Affairs are supportive of the recommended National Policy Statement. The Department of Conservation, the Ministry of Agriculture and Forestry, Te Puni Kōkiri and the Ministry of Health have raised concerns about policies in the recommended National Policy Statement. A particular concern of departments is about the places and values not listed in Policy 8 (avoiding adverse effect on the rural environment). For example, the Ministry of Agriculture has sought specific mention of established rural activities, like existing airstrips used for top-dressing, for coverage by Policy 8. The Department of Conservation is concerned that while 'outstanding natural landscapes' (part of section 6(b)) is listed in Policy 8 most places/values listed in sections 6 and 7, of the Resource Management Act (eg. areas of significant indigenous vegetation), are not. Policy 8 also mentions existing 'sensitive activities', which are defined as: schools, residential, hospitals and similar land uses. Te Puni Kōkiri wishes to seek marae and papakainga listed as 'sensitive activities'.
52. I believe that the changes sought by these departments are significant alterations to the recommended National Policy Statement, and risk changing the intent and meaning of several policies. I consider that the issues raised by departments can be addressed by councils when they come to develop plan rules or methods to give effect to the National Policy Statement through the public process set out in the First Schedule of the Resource Management Act. The Ministry will also prepare non-statutory guidance on to assist decision-makers in implementing the National Policy Statement.
53. The National Policy Statement is to set out a national policy framework for decision-makers, not to paraphrase or repeat provisions of the Resource Management Act. Stakeholders including Federated Farmers, New Era Energy and iwi all submitted to the Board of Inquiry and raised issues now the subject of concern from departments. I consider it inappropriate to now seek to re-write the recommended National Policy Statement.

54. I appointed a Board of Inquiry with sufficient expertise to hear submissions and rely on its judgement to make the recommendations on the proposed National Policy Statement.

Financial implications

55. There are no financial implications arising from this paper. Costs will be met through Vote Environment.

Human rights and gender implications

56. There are no human rights or gender implications arising from this paper.

Legislative implications

57. The National Policy Statement will be approved by Order in Council.

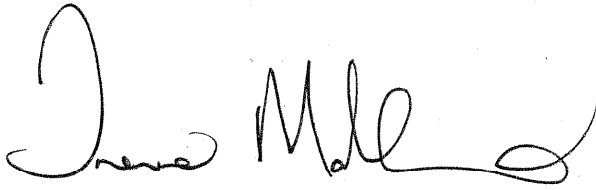
Regulatory impact statement

58. The Ministry for the Environment confirms that the principles of the Code of Good Regulatory Practice and the regulatory impact analysis requirements, including the consultation requirements, have been complied with. A RIS was prepared and a draft version of the RIS circulated with the Cabinet paper for departmental consultation.
59. The Regulatory Impact Analysis Unit (RIAU) considers that regulatory impact analysis and the RIS to be adequate according to the adequacy criteria. The RIAU notes that the consultation process for National Policy Statements (NPS), as set out in the Resource Management Act, has been followed. This means that key stakeholders have not been consulted on the final NPS.

Recommendations

60. The Minister for the Environment recommends that the Committee:
1. **note** that the Board of Inquiry on the proposed National Policy Statement on Electricity Transmission has submitted its report and recommendations;
 2. **note** that the Minister for the Environment has considered the report and recommendations of the Board of Inquiry and has decided to adopt the recommendations of the Board of Inquiry on the proposed National Policy Statement on Electricity Transmission, subject to a small number of editorial and technical changes;
 3. **approve** the National Policy Statement on Electricity Transmission that sets out an Objective and policies to enable the management of the electricity transmission network;
 4. **authorise** the submission to the Executive Council of the National Policy Statement on Electricity Transmission;

5. **note** that the National Policy Statement on Electricity Transmission will come into effect 28 days after its notification in the *New Zealand Gazette*;
6. **note** that the Minister for the Environment will prepare non-statutory guidance on the National Policy Statement on Electricity Transmission to assist decision-makers.



Hon Trevor Mallard
Minister for the Environment

22 / 2 / 8

IN THE MATTER of the RESOURCE MANAGEMENT
ACT 1991

AND

IN THE MATTER of the INQUIRY INTO THE
PROPOSED NATIONAL POLICY
STATEMENT ON ELECTRICITY
TRANSMISSION

TO The Minister for the Environment
 Executive Building
 WELLINGTON

INTRODUCTION

Part 5 of the Resource Management Act 1991 provides (inter alia) for the making of national policy statements. The Minister for the Environment prepared a Proposed National Policy Statement for Electricity Transmission and pursuant to Section 47 of the Act, has appointed a Board of Inquiry to inquire into and report on the Proposed National Policy Statement. The members of that Board are the Hon Peter Salmon, CNZM, QC; Russell Howie; and Prue Kapua. The Minister set terms of reference for the Board.

Pursuant to s.48 of the Act the Board gave notice of the Proposed National Policy Statement inquiry and ensured that that notice was published in the manner prescribed by that section. 71 written submissions were received. Some of those were late, but the Board resolved that they be received. Of those 71 submissions, 35 submitters indicated that they wished to be heard. The Board conducted hearings pursuant to the Act at Wellington, Hamilton and Auckland. The Board wishes to thank all submitters and, in particular, those who attended and were heard at the hearings, for the very considerable assistance provided.

THE DUTY OF THE BOARD

The Board's obligations are set out in s.51 of the Act which provides:

51 *Matters to be considered and board of inquiry's report*

- (1) *The board of inquiry must consider the following matters:*
 - (a) *the matters in Part 2; and*
 - (b) *the proposed national policy statement; and*
 - (c) *any submissions received on the proposed national policy statement; and*
 - (d) *any other relevant matter.*
- (2) *After considering the matters, the board of inquiry must arrange for a report and recommendations to be made to the Minister within any terms of reference set by the Minister.*

The Board has considered all the submissions and the further material by those who attended the hearings. The terms of reference prepared by the Minister require the Board to provide in its report and recommendations on the wording of the proposed National Policy Statement, including the objectives and policies. The report and recommendations may also address

- (a) The internal consistency of the proposed National Policy Statement as a whole, and ways to address any potential inconsistencies.
- (b) The level of certainty or clarity provided by the proposed National Policy Statement and where this is inadequate, ways to improve it.
- (c) The removal or further refinement of issues, objectives and policies where this is appropriate for achieving the policy approach of the proposed National Policy Statement.
- (d) The identification of any unintended or unforeseen, but likely outcomes of the proposed National Policy Statement and ways to address these.

THE PURPOSE OF NATIONAL POLICY STATEMENTS

S.45 of the Act provides:

45 *Purpose of national policy statements (other than New Zealand coastal policy statements)*

- (1) *The purpose of national policy statements is to state objectives and policies for matters of national significance that are relevant to achieve the purpose of this Act.*

- (2) *In determining whether it is desirable to prepare a national policy statement, the Minister may have regard to –*
- (a) The actual or potential effects of the use, development, or protection of natural and physical resources:*
 - (b) New Zealand's interests and obligations in maintaining or enhancing aspects of the national or global environment:*
 - (c) Anything which affects or potentially affects any structure, feature, place, or area of national significance:*
 - (d) Anything which affects or potentially affects more than one region:*
 - (e) Anything concerning the actual or potential effects of the introduction or use of new technology or a process which may affect the environment:*
 - (f) Anything which, because of its scale or the nature or degree of change to a community or to natural and physical resources, may have an impact on, or is of significance to, New Zealand:*
 - (g) Anything which, because of its uniqueness, or the irreversibility or potential magnitude or risk of its actual or potential effects, is of significance to the environment of New Zealand:*
 - (h) Anything which is significant in terms of section 8 (Treaty of Waitangi):*
 - (i) The need to identify practices (including the measures referred to in section 24(h), relating to economic instruments) to implement the purpose of this Act:*
 - (j) Any other matter related to the purpose of a national policy statement.*

The purpose of the Act is, of course, set out in s.5. It is to promote the sustainable management of natural and physical resources. Clearly, the national electricity grid is relevant to achieving that purpose. It is also apparent that in terms of s.45 subs(2), the grid affects more than one region and it seems to us it is particularly relevant in terms of paras (c), (f) and (g) of subs (2).

The national electricity grid has some unique characteristics. It is extensive and linear and thus passes through the territory of numerous local authorities. The benefits of the transmission network may often be distant from the territory of the local authority through which the transmission lines run. This means that there may be local adverse environmental effects but the benefits are spread throughout the country. Some submissions questioned the need for a National Policy Statement on Electricity Transmission. Others suggested that if there was a need the proper course to follow was to include electricity transmission in s.6 of the Act. We are satisfied that the national transmission network is a proper subject for a National Policy Statement. We are also satisfied that it would not be appropriate to include it in s.6. We consider that there is a difference between a matter of national **significance** and a matter of national **importance**. Clearly the Act draws a distinction by providing separately for the creation of National Policy Statements in respect of discrete activities. Some submitters maintained that the National Policy Statement should be considered along with the proposed National Environment Standards and/or with National Policy Statements on other aspects

of electricity or energy. We are satisfied that electricity transmission may properly be considered separately from these other matters.

THE PROPOSED NATIONAL POLICY STATEMENT

There were a significant number of comments on the content of the proposed statement. A number of submitters considered that policy 1, in particular, was not really a policy but was rather part of the objective. Others considered that the policies needed elaboration and, in some cases, explanation. We were greatly assisted by a number of submitters who provided us with alternative policy statements. Transpower provided an alternative statement at the commencement of the hearing. We thought it would be useful to obtain comments from other submitters on Transpower's alternative, so we arranged for it to be circulated to those who were intending to appear before us. As a consequence we received a number of very helpful comments and some further alternative proposals. On the other hand, there were those submitters who considered that with some minor modification the publicly advertised proposal was satisfactory. We have taken all these views into account in amendments which we intend to recommend. Meridian Energy Limited, for example, submitted that the proposed statement fell short of being effective because it failed to provide clear policy leadership or direction as to:

1. The national significance of the electricity transmission network.
2. The enablement of its development.
3. The approach to balancing competing considerations, including the management of environmental effects.

Clarity is essential. National Policy Statements sit at the top of the Act's plan and policy instrument hierarchy. S.55 requires local authorities to amend their planning documents to give effect to provisions of a National Policy Statement that affect those documents and s.55 (2)b allows such a statement to direct that, "*Specific provisions are to be included without notification for hearing ...*". This underscores the importance of clarity and effectiveness. The Tasman District Council criticised the vagueness of the objective and submitted that the proposed National Policy Statement does not have a clearly identified purpose and consequently does not clearly state:

- what actions are required of councils
- what actions are not available to councils

Submitters helpfully provided dictionary definitions of the words "objective" and "policy". An objective is, by definition, something towards which effort is directed; an aim, goal or end of action. A policy is a definite cause or method of action selected from among alternatives and in light of given conditions to guide and determine present and future decisions. There is criticism of the use of the word "should" in policies 3, 4, 5 and 6 as indicating a discretionary approach, rather than a directive one. We have addressed these criticisms in the changes we propose to the policy statement.

Other issues which we have determined should be addressed include:

1. A distinction between existing and new or upgraded transmission lines.
2. The importance of long-term planning and the integration of requirements with other relevant utility providers.
3. The distinction between urban and rural locations.
4. The question of development under power lines.

ELECTRIC AND MAGNETIC FIELDS (EMF'S)

We heard a number of very detailed and carefully prepared submissions relating to the perceived detrimental health effects arising from the electric and magnetic fields emitted by high voltage transmission lines. We were impressed by the sincerity of the submitters and the care and effort that they had gone to present their views to the Board. We attach a comment on these concerns as an annexure to this report. We consider that it is important for the Government to keep these issues under constant review. We have concluded, however, that it would not be appropriate for a National Policy Statement to require compliance with other than nationally and internationally approved standards, although it is appropriate to consider precautionary measures as well.

OTHER MATTERS RAISED BY SUBMITTERS

There were a number of issues raised by submitters which were inappropriate for inclusion in the National Policy Statement. They concerned matters which were not relevant in terms of the Resource Management Act and must be addressed if they are to be addressed at all in other legislation or in other ways. Federated Farmers of New Zealand, for example, were concerned with compensation issues. Submitters raised issues relating to access to land. Neither of these matters is

appropriate for inclusion in the National Policy Statement. Some submissions claimed that Transpower was receiving beneficial treatment through having a policy statement relating to transmission network. The policy statement is, of course, limited to the national grid which is owned by Transpower. However, the justification for the National Policy Statement is the national significance of the transmission network. The issue of its ownership is incidental to that.

Some supply companies considered that the policy statement should be extended to apply to all high tension lines, whether or not they were part of the national grid. We were not persuaded that this would be appropriate. It is the New Zealand-wide nature of the grid that is one of the principal reasons for it being of national significance. The same cannot be said of supply lines which in most cases are contained within one region. Problems of cut-off points also arise.

CONCLUSION

Forwarded with this report is our revised proposed National Policy Statement for the consideration of the Minister.

Hon Peter Salmon's – signature

Prue Kapua's – signature

Russell Howie's – signature

A note on electric and magnetic fields (12 November 2007)

1. Magnetic field strengths below operating transmission lines depend on the current being carried and the design of the circuit. For "single circuit flat-top" (i.e. three single phase wires slung parallel to each other, a typical 220kV line), the magnetic field directly under the line 1m above the ground is 28.3 micro teslas. At 10 m from the centerline it is 22.6 and 9.9 at 20m from the centerline. Typical electric fields are 5 to 2100 volts per metre.
2. General public and medical concern about possible effects on people and their health from exposure to 50 hertz power system electric and magnetic fields has been evident for some decades. Field and laboratory research into both acute effects and chronic effects has resulted in exposure guidelines published in 1998 by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), reviewed and confirmed by that organization in 2003 and reviewed again in 2007 by the World Health Organisation. Those guidelines set what are called reference levels for general public exposure at **5000 volts per metre** in respect of electric fields and **100 micro-teslas** in respect of magnetic fields.
3. The World Health Organisation in 2007 after a review of the available health effects data from 50 hertz electric and magnetic fields concluded that policy makers should;
 - (a) establish guidelines for field exposure for both the general public and workers; (the best source of guidance are the international guidelines)
 - (b) implement very low-cost precautionary procedures to reduce exposures;
 - (c) implement very low-cost measures when constructing new facilities to reduce exposures;
 - (d) consider reducing field exposures when changes to sources are contemplated;
 - (e) improve planning for the siting of major facilities that create these fields.
4. There were 36 submitters that raised the issue of adverse environmental effects from the electric and magnetic fields. Virtually all considered that it was desirable to specify standards that were consistent, soundly based, and up to date. Some suggested the actual standard to be achieved could be expressed as a National Environmental Standard. Several emphasized the need to plan both the grid design and location and the urban development so that any adverse effects from EMFs could be avoided. There were wide ranging views on the level of magnetic field strength that could be considered safe from a health point of view. ICNIRP and WHO recommended a maximum level of 100 micro teslas while some submitters considered the maximum should be no greater than 0.4 micro teslas.
5. Mr Gledhill from The National Radiation Laboratory, Ministry of Health, considers the ICNIRP guidelines are appropriate but recommends low or no cost measures to reduce or avoid exposures. He acknowledges there is a weak but relatively consistent association (correlation) between exposure to relatively strong power frequency magnetic fields (time averaged exposure greater than 0.4 micro teslas) and an increased risk of childhood leukemia. However he said the evidence was not adequate to reach a cause and effect relationship so there was no basis on which to adopt maximum exposure levels less than the current international guidelines. The "association" did provide grounds for what is called "prudent avoidance".

6. Benefit – cost analysis has been used, putting a value on lives saved and the enjoyment of good health and the cost of avoiding exposure or limiting it to lower levels. The rarity of identified health effects and the high cost of reducing exposure has led to the adoption of low or no cost measures to reduce exposure.
7. The International Agency for Research on Cancer in 2002 has classified magnetic fields from transmission lines as category 2B, “Possibly carcinogenic”; i.e. limited evidence of carcinogenicity in humans but no support from animal or other studies. Examples given include car exhaust, coffee and pickled vegetables.
8. Submissions by Dr Smart¹ and Dr Bennet² for New Era Energy, presented extensive statements to show their view of the serious adverse health effects of these magnetic fields even down to exposures of 0.4 micro teslas. Their submissions were impressive.
9. Dr Smart said typical background AC magnetic fields in homes would be less than 0.1 micro teslas and that nearby high voltage power lines would dominate the background levels imposing continuous magnetic field strengths of 5 micro teslas or more. He has undertaken an extensive literature search on the health effects of EMFs and refers to some 92 references with a further 48 references identified. He traversed research on cell behaviour, epidemiological evidence, the practice in some other countries and he observed that a time averaged exposure of 100 micro teslas is unlikely to ever occur, implying that such a maximum level is an ineffectual control.
10. Dr Bennet reinforced Dr Smart’s statements and repeatedly stressed the correlation between childhood leukemia and exposure to magnetic fields from transmission lines and the other likely health effects. She considers that the evidence for harmful effects is strong enough for us to take the precautionary approach of adopting a target maximum of 0.4 micro teslas. She also urges the separation of transmission lines and sensitive land use activities.
11. The best guidance we have as to the acceptable exposure to magnetic fields from transmission lines has to be the international guidelines endorsed by the WHO this year. We note that circumstances which lead to a long-term exposure to fields as strong as 100 micro teslas are hard to imagine and we were given no examples. So a maximum set at that level will have virtually no effect in regulating the juxtaposition of transmission lines and sensitive land uses.
12. We conclude that steps should be taken in New Zealand to avoid, remedy or mitigate the agreed association of adverse health effects with strong 50 hertz magnetic fields. To this end ongoing research and appropriate long-term planning to separate transmission lines and sensitive landuses should be pursued.
13. Other factors such as physical constraints, visual aspects, topography, existing land use and costs will also influence a decision on adequate separation of these activities. Where it is practicable and economic the general approach should be to protect the public from average exposure to relatively strong magnetic fields.

¹ Dr Smart, MBChB (Otago) FRCS (Eng) FRCSEd FRACS, Urologist.

² Dr Bennet, Assoc Prof, Fetal and Neonatal physiologist, Univ of Auckland.

PROPOSED NATIONAL POLICY STATEMENT ON ELECTRICITY TRANSMISSION

PREAMBLE

This National Policy Statement (NPS) sets out the objectives 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 Resource Management Act, and within four years of approval of this NPS, councils are to notify and process under the First Schedule to the RMA a plan change or review to give effect as appropriate to the provisions of this NPS.

The efficient transmission of electricity on the national grid plays a vital role in the wellbeing of New Zealand, its people and the environment. High voltage electricity transmission has special characteristics that create challenges for its management under the Resource Management Act. These include:

- Transporting electricity efficiently over long distances requires support structures (towers or poles), conductors, wires and cables, and substations and switching stations.
- These facilities can create environmental effects at a local, regional and national scale. Some of these effects can be significant.
- The transmission network is an extensive 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 Resource Management 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 all persons exercising functions and powers under the Resource Management Act 1991. The objectives and policies are intended to guide decisionmakers 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 requirements for designations for transmission assets. 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 RMA.

When persons are exercising functions and powers 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.

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.

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 others activities on the network.

RECOGNITION OF THE NATIONAL BENEFITS OF TRANSMISSION

POLICY 1

In achieving the purpose of the Act all persons exercising functions and powers under it shall 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:

1. Maintained or improved security of supply of electricity.
2. Efficient transfer of energy through a reduction of transmission losses.
3. 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.
4. 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.

MANAGING THE ENVIRONMENTAL EFFECTS OF TRANSMISSION

POLICY 2

In achieving the purpose of the Act all persons exercising functions and powers under it shall 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, decisionmakers 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, decisionmakers shall 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 works associated with transmission assets, decisionmakers shall 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 sensitive activities³ 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 activities⁴.

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 activities⁵.

³ Sensitive activities include schools, residential, hospitals and similar land uses.

⁴ Ibid.

POLICY 9

Provisions dealing with electric and magnetic fields (EMF's) associated with the electricity transmission network shall be based on the ICNIRP⁶ guidelines and recommendations from WHO⁷ or revisions thereof and any applicable New Zealand standards or national environmental standards.

MANAGING THE ADVERSE EFFECTS OF THIRD PARTIES ON THE TRANSMISSION NETWORK

POLICY 10

In achieving the purpose of the Act, all persons exercising functions and powers under it shall 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

Councils shall, in conjunction with the operator of the national grid, 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 councils determine these corridors, the operator of the national grid will as far as is possible provide councils 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).

MAPS

POLICY 12

District councils shall identify the electricity transmission network on their relevant planning maps whether or not the network is designated.

⁵ Ibid.

⁶ ICNIRP means International Commission on Non-Ionising Radiation Protection. Guidelines for limiting exposure to time varying electric magnetic and electromagnetic fields (up to 300 GHz). Health Physics 1998, 74(4): 494-522.

LONG-TERM STRATEGIC PLANNING FOR TRANSMISSION ASSETS

POLICY 13

Decisionmakers shall recognise that the designation process can facilitate long-term planning for the development, full operation and maintenance of electricity transmission infrastructure.

POLICY 14

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

EXPLANATORY NOTE

The proposed National Policy Statement will guide local authorities to ensure that all relevant environmental effects are appropriately considered in carrying out their functions under the Resource Management Act.

The proposed National Policy Statement has been prepared in accordance with the Resource Management Act and will not override that Act or any other legislation. The proposed National Policy Statement should be read together with all other relevant planning documents, including the New Zealand Coastal Policy Statement.

The National Policy Statement will apply to all persons exercising functions and powers under the Resource Management Act. Local authorities are required to give effect to the provisions of the National Policy Statement which shall be included in documents pursuant to s.55(2A)(a) of the Resource Management Act.

“Electricity transmission network” and “electricity transmission” mean 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 grid” means the assets used or owned by Transpower NZ Limited.

⁷ WHO means World Health Organisation, Environmental Health Criteria Monograph No 28, June 2007.

**NATIONAL POLICY STATEMENT
ON ELECTRICITY TRANSMISSION**

Governor-General

Order in Council

At Wellington this day of 2008

Present:

in Council

Pursuant to section 52(2) of the Resource Management Act 1991, His Excellency the Governor-General, acting on the advice and with the consent of the Executive Council and on the recommendation of the Minister for the Environment (having satisfied the requirements of that Act), approves the following national policy statement.

Contents

	Page
Preamble	2
1 Title	3
2 Commencement	3
3 Interpretation	3
4 Matter of national significance	4
5 Objective	4
6 Recognition of the national benefits of transmission	4
7 Managing the environment effects of transmission	5
8 Managing the adverse effects of third parties on the transmission network	6
9 Maps	6
10 Long-term strategic planning for transmission assets	7

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-ionising 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.

Clerk of the Executive Council

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.

Regulatory Impact Statement

National Policy Statement on Electricity Transmission

Executive Summary

The efficient transmission of electricity plays a vital role in the well-being of New Zealand, its people and the environment. The more resilient, secure and flexible the national grid is the more efficiently and effectively it can perform its vital task. Perpetually re-litigating the importance of electricity transmission and focusing on local adverse impacts instead of balancing them with national benefits can cause unnecessary delays and potentially result in decisions that are not in the national interest.

The National Policy Statement (NPS) will, unlike alternative options, provide a consistent national policy framework for decision-makers on transmission network activities, and establish electricity transmission as a nationally significant activity under the Resource Management Act 1991 (RMA). This would result in benefits to the Grid Operator (Transpower), consumers and the environment, but costs to local government and landowners. The quantified net benefits are estimated to be approximately \$3.0 million. There is also an expectation that the management of the national grid as a matter of national significance could indirectly result in unqualifiable benefits to the whole electricity system of generation, transmission and distribution.

Adequacy Statement

The Regulatory Impact Assessment Unit (RIAU) has reviewed the regulatory impact analysis and the RIS and considers these to be adequate according to the adequacy criteria. The RIAU notes that the consultation process for National Policy Statements, as set out in the Resource Management Act has been followed. This means that key stakeholders have not been consulted on the final NPS.

Status Quo and Problem

The national grid is the high voltage transmission network – that carries electricity around the country. It is made up of over 12,000 km of high-voltage transmission lines and more than 170 substations. It connects power stations owned by generating companies to substations that feed local electricity distribution networks. The national grid is owned and operated by Transpower NZ Limited.

The majority of the national grid was constructed prior to the introduction of the RMA in 1991, and therefore has existing use rights under the RMA. However, many new developments or upgrades to the national grid are carried-out under terms, rules or designations contained in district plans, developed pursuant to the RMA; there is no national policy position or guidance on the management of the national grid under the RMA. Despite common environmental impacts, the treatment of similar improvement or upgrading activities within district plans varies significantly throughout New Zealand. Because the national grid is an integrated network, delays or complications in one project, or at one place, can have implications for the network in adjoining districts, and sometimes for the wider network.

The Problem with the Status Quo is threefold:

- An inadequate recognition of the nature and benefits of the national grid
- An inadequate policy framework for managing effects of the national grid
- An inadequate policy framework for managing effects on the national grid.

Insufficient weight is currently given to the national significance of electricity transmission in plan provisions. Provisions in plans are inconsistent, 22% of district plans do not contain an adequate policy framework on the benefits of infrastructure while 59% do not contain an adequate policy framework relating to adverse effects on infrastructure. Nor is there any national position or framework on the management of the national grid.

Each local authority has its own set of objectives, policies, and rules – although Transpower has sought to introduce some commonality by engaging in advocacy on plan development. Transpower advocates network friendly provisions in a range of other (non-RMA) documents produced by local and central government agencies.

The Ministry of Economic Development found that no district or regional plans make specific reference to the national benefits of electricity transmission. Conversely, a Transpower study has found that most district plans deal with the adverse effects of infrastructure on other activities. Therefore, a central element of the Status Quo is that in most planning documents Transpower's activities are *prima facie* considered as having adverse effects – without much balancing recognition of the transmission network's national benefits.

It is considered that the inconsistent management of the national grid under district, and regional plans and policy statements, results from the following limitations:

- Variable recognition/consideration of the national benefits of transmission;
- The lack of recognition/consideration of the significance of the externalities caused by inconsistent management of the network;
- Inadequate management of the effects of activities on the transmission network;
- Inadequate management of certain adverse effects of transmission network.

National demand for electricity, and pressure on the national grid's limited capacity, is at its highest level ever and is expected to increase. It is also expected that the number of major transmission projects, both new builds and upgrades, will sharply increase over the next decade.

Most recent electricity demand forecasts are based on the Electricity Commission's national demand forecast from the Initial Statement of Opportunities, dated July 2005. This forecasts that national electricity demand will grow on average at 2.3% over the next 10 years. This means that additional network investments (including new transmission lines and/or upgrading of existing lines) will be required.

A significant weakness of the Status Quo is that it leaves the status of electricity transmission, and the tension between local adverse effects and national benefit, open to perpetual re-litigation – district by district – and therefore delays and lost opportunities. Because there is no overall policy framework, insufficient recognition is given to the national importance of electricity transmission. There is also an inadequate framework for management of the effects of national grid activities or the activities of third parties that can compromise the operation and development of national grid network.

These inadequacies can result in:

- Hold ups of process in one location prolonging the interval before realisation of benefits from improved transmission elsewhere;
- Network effects, whereby the integrity of aspects of network operation are only as strong as those in the weakest link in the network.
- Cost shifting, as time and costs required to resolve planning processes in one district are spread over power consumers in all other districts.
- Transmission system failures caused by planning-induced delay in making necessary adjustments that can have high costs for consumers outside the district.

Policy objective

To provide a nationally consistent policy framework that ensures decision makers 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.

Alternative options

A number of alternatives – non-regulatory and regulatory – to the Status Quo have been identified. The alternative options were assessed against their ability to:

- Help promote the sustainable management of natural and physical resources;
- Establish the national significance of electricity transmission;
- Establish a national policy framework;
- Establish a consistent policy framework;
- Be implemented in a reasonable timeframe and at reasonable cost.

Non-regulatory options

Non-statutory guidance

Non-statutory guidance can support the importance of the national grid. Transpower and councils already make efforts to educate industry and the public about the effects of works, construction or structures on adjacent transmission lines.

Non-statutory methods have some limited success. Greater efforts along these lines could be made. However, it is doubtful there would be significant improvements to the Status Quo situation.

Without some regulatory compulsion there can be no guarantee that decision makers will give appropriate consideration to the national significance of the transmission network. The costs of non-statutory guidance may not be very great but there would very little change from the Status Quo and hence such a non-regulatory approach is very unlikely achieve the policy objective.

Easements

An option is for Transpower to assist resolution of some transmission issues by seeking easement agreements with individual landowners across the national grid for access and the ability to work on or limit certain activities on land affected by the network.

However, this would take considerable time (years) and money (likely millions), and still not cover all areas of concern or establish a national significance status for transmission. Nor would easements result in an overall policy framework that could apply to future events.

Regulatory options

Amending the RMA

An amendment to the RMA could be made to provide a clear signal on the importance of transmission to decision makers. However, such an amendment would still require the local development of objective, policies, rules and methods within a certain timeframe to be worthwhile and effective. Legislative amendments are often more expensive and time consuming than other options, resulting in significant costs to central and local government. The amendment option would give communities an opportunity to input into plan reviews or changes related to the national grid, although, these may take many years to finalise.

Designations over the transmission network

Designations would give the right to undertake activities on transmission lines and protect the line from third party activities. Designations enable maintenance and some upgrades of the existing network without further resource consent requirements under district plans.

However, designations would not provide a policy framework within which decisions on new transmission could be made. The possibility of securing designations over the network – ‘deemed’ through legislation, or pursued independently by Transpower – would have significant costs and delays because of Transpower’s need to purchase land or compensate landowners for the interest taken by the designation. Deeming designations would also significantly reduce participation rights.

Ministerial ‘call in’ of proposals

The Minister for the Environment can ‘call in’ a proposal (resource consents or notices of requirement for designations) from the local authority that would normally determine it. The proposal is then referred to a Board of Inquiry or the Environment Court to decide. The main consideration for the Minister in taking this action is whether the proposal is of national significance. ‘Call in’ can only be used for an individual matter (although a matter could comprise a project including numerous resource consent applications and notices of requirement).

The cost of a ‘call in’ could be partially recovered from the applicant. The ‘call in’ of any given transmission project would not set a precedent for any that followed as each would have to be judged on its merits. Therefore, no long-term policy framework would be established.

All-of-Government submissions on proposals

An All-of-Government submission can be made on development proposal or notice of requirement. An All-of-Government submission set out the Government's position, including national policy considerations, on proposals. While All-of-Government submissions are able to address issues of national interest, they are only count as one submission; no national policy framework results. The Government would meet this cost.

National Environmental Standard/s

A national environmental standard (NES) can ensure a consistent regulatory framework and decision making process throughout the country. Every regional, city or district council must enforce the same standard.

A NES would (normally) override any existing plan rules on the subject matter ensuring national consistency in transmission related resource management decision making. However, NES can not ensure decision makers recognise the national significance of the electricity network, nor can an NES provide a national policy framework.

Two NES for electricity transmission are currently being investigated: one to provide a framework for managing the environmental effects of the operation, maintenance and enhancement of the national grid (but excluding the construction of new transmission lines) and the other to manage the adverse effects of third-party activities on the national grid. Once NES regulations are issued in the *Gazette* there is no opportunity for public input.

Summaries

<i>Ability to meet main assessment criteria</i>	Guidance	Easements	Amendment	Designations	Call in	Submissions	NES	NPS
Promote sustainable management of natural and physical resources	✓	✓	✓	✓	✓	✓	✓	✓
Establish the national significance of electricity transmission	x	x	✓	x	x	x	x	✓
Establish a national policy framework	x	x	✓	x	x	x	x	✓
Establish a consistent policy framework	x	x	x	x	x	x	x	✓
Be implemented in a reasonable timeframe/cost	✓	x	x	x	✓	✓	✓	✓

Preferred option - National Policy Statement

A national policy statement (NPS) can provide guidance on resource management issues of national significance. Councils need to ensure that their policy statements and/or plans give effect to a NPS. The main difference between the NPS provisions and the alternatives discussed is that the NPS can accord national significant status to electricity transmission, and provide policies to support decision-makers.

The NPS includes policies for the management of existing and proposed transmission projects and the adverse effects of electricity transmission and on other activities/values by the network. Local authorities would have to give effect to the NPS in plans with four years. Beyond itself the NPS will not add to the stock of regulation, although it will in most cases mean the need to develop further provisions in local authority plans, however, this is a part of the Status Quo of plan review and an existing RMA requirement. The impacts on each stakeholder are set out below, and in tables 1 and 2.

The recommended NPS contains one Objective and 14 policies. The Objective of the NPS is:

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 need 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.

Policy 1 is about recognition of the benefits of electricity transmission, and gives a list (not exhaustive) of potential benefits of transmission development. Policies 2 through 9 are about managing the effects of transmission. Policy 2 is about recognising and providing for transmission activities, and Policy 3 on considering the constraints on transmission development from technical and operational requirements. Policies 1, 2 and 3 are iterations of similar policy intent to earlier draft policies in the publicly notified 'proposed NPS' (May 2007). Policy 4 says decision-makers must have regard to the extent adverse effects of transmission have been avoided, remedied or mitigated by the route, site and method selection. Policy 5 is similar to Policy 3 but focuses on the maintenance and minor upgrade of existing transmission assets. Again, policies 1 through 5 are similar in nature to, but more wide-ranging, than earlier draft policies contained in the publicly notified proposed NPS.

Policies 6, 7 and 8 are new or substantially evolved policies. Policy 6 seeks the reduction of existing environmental effects of transmission when there is an appropriate opportunity; including on 'sensitive activities' (eg. residential, schools). Policy about minimising and avoiding adverse transmission effects on places in urban environments (including 'sensitive activities'), while Policy 8 is about avoiding adverse transmission effects on place in rural environments.

Policy 9 is about electric and magnetic fields (also known as EMF). The Policy has been added to but is not substantially different in meaning than draft Policy 6 of the proposed NPS.

Policies 10 and 11 are about managing the adverse effects of third parties on transmission activities (eg. quarrying), and seeking to reduce or avoid them. Policy 11 requires a 'buffer zone' be developed. Policies 13 and 14 give direction for the long-term planning for transmission assets.

Expected costs and benefits of the preferred option

Central Government

The Government will have costs for rolling-out the NPS and providing guidance. These costs are expected to be small.

Local Government

Local government would face costs associated with the NPS despite the likely drop in transaction costs with Transpower. They would have to become familiar with its intent, and explain its provisions.

~~This could be difficult in the short term because it requires a behavioural change from landowners who potentially will be against the introduction of the NPS.~~

Council costs are potentially \$4.0 million (present values at 10% discount rate over 30 years). The main costs are associated with plan changes, consenting around third-party issues and appeals.

Landowners

Landowners would experience costs because they will be expected to change their behaviour (and economic activity) around transmission lines. Their losses would be consequential costs (associated with changing or curtailing their behaviour/activities) and transaction costs associated with dealing with councils who will enforce changes in activity/behaviour (possibly through the consenting process). Potentially, their costs will be approximately \$2.7 million. Most costs will be short-term, although, others will be ongoing.

People and Communities/Consumers/Industry

Consumers, generators and others are likely to experience a benefit since security of electricity supply will be enhanced with the NPS. This benefit has not been quantified. Existing generators may benefit from insecurity of supply, as this enables higher prices and higher cost generation to be used, but new generators (especially renewables) should benefit from more timely grid connections to the market (and consequently a reduction in 'greenhouse' gas emissions).

Transpower

Transpower (the Grid Operator) will benefit from the introduction of a NPS. Transmission's benefit to the nation would be recognised while activities of third-parties around transmission lines would be restricted. The restriction of third-party activity would likely to have benefits for Transpower and accounts for the bulk of their approximate \$10.0 million benefit.

Risks

There may some variation to the rules/method proposed to district plans and regional plans and policy statements. There will be a need for the Ministry to prepare non-statutory guidance to assist decision makers and monitor the plan review/changes process.

The development of local rules and methods through the First Schedule of the Resource Management Act will allow landowners and other affected parties to represent their views to councils.

Table 1: Summary of costs and benefits

Group/resource	Explanation	Cost/benefit
Benefits		
Environment	Potentially a benefit. Safeguards in place that reduce risk of substantial environmental losses	Potential benefits can not be properly costed, but will be small
Grid operator (Transpower)	Benefits because of NPS guidance particularly for third-party activities	Potential benefits of \$10.0 million
Government	Some benefits to Government, through security of supply and as owner of Transpower	Potential benefits can not be properly costed, but will be small
Consumers	Some benefit from increased security of supply	Potential benefits can not be properly costed, but will be small
Others/generators	Some benefit from more timely connection and increased security of supply	Potential benefits can not be properly costed, but will be small
Costs		
Local Government	Increase in costs, particularly for those who have to change their plans because of the NPS. There will be increases in transaction costs with landowners.	Potential costs of \$4.0 million
Landowners	Costs to some landowners, through transaction costs and change behaviour around transmission lines. The costs will mainly fall in the short term but some will be ongoing	Potential costs of \$2.7 million
Government	Costs associated with managing the transition process	Potential costs of \$0.16 million
Net benefit		Potential net benefit of approximately \$3.0 million

Source: NZIER 2008

Implementation and review

The NPS has undergone public notification (on a national basis) calling for submissions, a public Board of Inquiry, consideration by the Minister of the Board's report on the NPS, two evaluations of benefits and costs (under section 32 of the RMA) and consideration by Cabinet. Once the NPS is issued, decision-makers will have to give effect to it immediately. However, local authorities will still have to develop plan rules and methods through the normal public process within four years of the NPS coming into force. The Government will develop non-statutory guidance on the NPS to assist decision-makers. Monitoring of plan reviews/changes will also be necessary, as will a five year review of the success of the NPS (and any need to revise it).

Consultation

Stakeholder consultation

In 2005 the Government established a Reference Group to investigate, consult and report on resource management issues and policy options for national guidance on electricity transmission and produced a draft report. The Reference Group publicly consulted on its draft report.

Twenty-nine submissions from a wide range of interested parties were received. The views expressed ranged from support to some reasonably significant concerns. The Group then prepared its final report setting out its recommendations in 2006: *The Merits and Potential Scope of National Guidance on Management of Transmission under the RMA*.

The consultants who carried out the first section 32 evaluation report, on an earlier draft of the NPS, also conducted interviews with several industry and local authority stakeholders. In addition, the Minister for the Environment specifically contacted relevant iwi to seek and consider what comments they might have on the subject matter of the NPS. Where possible the concerns of stakeholders and others consulted have been incorporated into analysis or policy development.

The proposed NPS was approved by Cabinet in April 2007 and was publicly notified (nationally) by the Board of Inquiry in May 2007. Over 400 stakeholders were notified directly. Seventy-one submissions were received and hearings conducted during August 2007, in Wellington, Hamilton and Auckland. The Board heard extensive submissions representing different points of view and received several 'alternative' NPS from submitters, including Transpower which was circulated to submitters. Thirty-one submitters spoke at the hearings, including a representative from the Ministry of Health on the matter of electric and magnetic fields. No other central Government agencies made submissions to the Board.

The Board delivered its report and recommendations to the Minister in November 2007. As can be noted in the Board's report the Board have carefully considered the wide range of views and submissions to it and developed it recommended proposed NPS document accordingly. The Board has proposed eight new NPS policies, seven of which are substantially new; many of the themes covered by these new policies were addressed in submissions to the Board, and covered in the 'alternative' NPS tabled by submitters, most notably by Transpower itself. Transpower's alternative NPS was circulated to submitters by the Board to allow them an opportunity to comment directly on it.

The RMA says the Minister is required to consider the Board's report and may any changes to the proposed NPS that he 'thinks fit'. The RMA does not require, or provide for, the Minister to undertake any further consultation on the proposed NPS before recommending it to the Executive Council for approval.

Government department/agency consultation

The Ministry for the Environment has consulted: Department of Building and Housing, New Zealand Defence Force, Department of Internal Affairs, Department of Conservation, Land Information New Zealand, Ministry of Agriculture and Forestry, Ministry of Economic Development, Ministry of Health/National Radiation Laboratory, Te Puni Kōkiri, Treasury, Ministry of Transport, and Department of the Prime Minister and Cabinet.

Departments have been circulated the recommended NPS that the Minister intends for issue. The Department of Internal Affairs, the Treasury and the Ministry of Economic Development support the recommended NPS.

Several departments (Department of Conservation, Ministry of Agriculture and Forestry, Ministry of Health, Te Puni Kōkiri) have raised concerns about some policies in the NPS, in particular, Policy 8 and interpretation of 'sensitive activities'. Recommended Policy 8 is about managing adverse effects in rural environments, and includes a list of places where the adverse effects of transmission activities should be avoided. Departments seek to include further places and values listed in Policy 8. 'Sensitive activities' defined in the recommend NPS includes; schools, residential, hospitals and similar land uses. The Board's report talks about 'sensitive activities' in the context of exposure to electric and magnetic fields. The list of 'sensitive activities', in endnote 1 of the NPS, is not exhaustive.

Overall, the view is that these issues can be addressed by councils when they come to develop rules and methods to give effect to the NPS or are already dealt with under the RMA. Furthermore, the changes to NPS policies risk change to the intent and/or meaning of the recommended NPS that was arrived at through a public statutory process.

PTO

Notes for table: (1) One-off costs for plan adjustment \$20,000 x 12 regional plans; \$75,000 x 73 district plans. This is expected to impact on 60% of councils; (2) \$100,000 in first year; \$50,000 in each of next two years; 'B' = Unquantifiable benefit; 'C' = Unquantifiable cost, negative impact; '?' = Probable effects, but no information on amount or balance of positive/negative; 'Sunk' = committed or spent. Source: NZIER 2008.

Policies: **Policy 1** is about recognition of the benefits of electricity transmission, and gives a list of potential benefits of transmission development. Policies 2 through 9 are about managing the effects of transmission. **Policy 2** is about recognising and providing for transmission activities. **Policy 3** is about considering the constraints on transmission development from technical and operational requirements. **Policy 4** is about regard to the extent adverse effects of transmission have been avoided, remedied or mitigated by the route, site and method selection. **Policy 5** focuses on the maintenance and minor upgrade of existing transmission assets. **Policy 6** seeks the reduction of existing environmental effects of transmission when there is an appropriate opportunity; including on 'sensitive activities'. **Policy 7** is about minimising and avoiding adverse transmission effects on places in urban environments. **Policy 8** is about avoiding adverse transmission effects on places in rural environments. **Policy 9** is about electric and magnetic fields. **Policies 10 and 11** are about managing the adverse effects of third parties on transmission activities. **Policies 13 and 14** give direction for the long-term planning for transmission assets.