Office of the Minister for the Environment

Cabinet Economic Development Committee

National Environmental Standards for Telecommunications Facilities under the Resource Management Act

Proposal

1. I present details of proposed national environmental standards under the Resource Management Act 1991 for low impact telecommunications facilities, including a regulatory impact statement. This paper seeks Cabinet approval for the policy and agreement for the Ministry for the Environment to commence the regulation drafting process.

Executive summary

2. I am seeking Cabinet approval for four National Environmental Standards under the Resource Management Act 1991, for low-impact Telecommunications Facilities. The proposed standards cover radiofrequency fields generated by telecommunication antennas, the erection of roadside cabinets and the addition of antennas to existing structures, (such as light poles), on roadsides or verges. A fourth standard would set noise levels for the operation of roadside cabinets.
3. In July 2005, Cabinet approved the scoping of possible national environmental standards for telecommunications by an industry lead reference group [CBC Min (05) 8/14].
4. In November 2006 Cabinet agreed to public release and consultation on a Ministry for the Environment discussion document that included the industry reference group's proposals. [POL Min (06) 28/11]. Public consultation on the proposed national environmental standards attracted 82 submissions from industry, local and central government, community groups and individuals. The outcome of public consultation was reported to Cabinet in December 2007 [EDC Min (07) 29/13].
5. Submissions were analysed to inform the final policy position, cost benefit analysis and Regulatory Impact Statement presented in this paper.
6. If this paper is approved, I will instruct the Parliamentary Counsel Office to draft a national environmental standard to give effect to these policy decisions.

Context

7. The telecommunications industry is facing a period of rapid expansion in face of changing demands, new technologies and the need to update capacity. Such expansion would support government aims for expanding access to broadband and information technology, increasing competition

among suppliers through local loop unbundling, improving general industry productivity and achieving economic transformation. This is set against a backdrop that contains local regulatory inconsistency and uncertainty.

8. Telecommunications providers have under the Telecommunications Act, a right to occupy road reserve[1] for certain types of infrastructure. However, territorial authorities often require resource consent for the infrastructure through their district plans. If consent is refused, this can effectively veto the legal right to occupy road reserve enjoyed under the Telecommunications Act.

9. Installation of telecommunications infrastructure is subject to Resource Management Act consenting requirements via local authorities. Resource consent requirements vary widely, both in terms of whether or not consent is required, but also the nature and extent of conditions that are attached to resource consents. The variability in consenting requirements creates uncertainties, resulting in costs and time delays. Infrastructure will require planning approval in one district, where in an adjoining district the same infrastructure may not require resource consent at all.

10. The proposed standards do not bypass the requirements of the Resource Management Act; rather they will provide certainty about the levels of permitted development within the Resource Management Act. Infrastructure would need to comply with specific criteria, designed to minimise their impact on the environment in order for them to be installed without resource consent. The proposed standards would make compliance with the New Zealand standard for radiofrequency fields mandatory.

11. The ability to use road reserve for telecommunications antennas and cabinets is seen as critical by the telecommunications industry for improving coverage, quality and delivery of all telecommunications services.

Progress to date

12. In September 2004, Cabinet approved a comprehensive set of measures designed to improve the working of the Resource Management Act 1991 (RMA) [CAB Min (04) 30/10]. Part of the review led to the decision to explore greater use of national policy statements and national environmental standards to help local government decide how competing national benefits and local costs of infrastructure should be balanced.

13. In July 2005, Cabinet approved an industry-led approach to scoping national environmental standards for telecommunications [CBC Min (05) 8/14]. A telecommunications industry reference group was convened with representatives from Telecom, Vodafone and TelstraClear, Local Government New Zealand, Ministry for the Environment, Ministry of Health, and Ministry of Economic Development.

[1] The right to occupy the road reserve applies to Network Operators approved under the Telecommunications Act 2001.

14. The scoping process was completed in June 2006. After considering several options for national instruments under the Resource Management Act, the industry reference group proposed a package of national environmental standards for radiofrequency field exposures and specific telecommunications facilities. The package of four standards was developed to address inconsistencies in district plans and provide certainty for local government, the telecommunications industry and the general public on the level of development that could be permitted and the threshold above which development would require resource consent.

15. The proposed national environmental standards cover the installation and operation of low impact telecommunications facilities within the road reserve, and a standard that would regulate exposure to radiofrequency fields from all telecommunications equipment.

Need for a national environmental standard

16. Telecommunication companies report that the lack of national consistency caused by variation in Resource Management Act requirements across local authorities adds costs to their provision of services and slows down the roll-out of new capacity across the country. This uncertainty of expectation and outcome also has considerable impact on the operational planning of telecommunications companies. For example one district plan may allow roadside cabinets of up to 1.8m in height without the requirement to first obtain resource consent, while the threshold for an adjacent council may be less than 1.0m. Costs arise to industry analysing the differing permitted activity thresholds across differing councils, and making any subsequent changes to their equipment design.

17. The current situation is compounded for new entrant operators, who have no existing network to build on and are particularly dependent on rapid deployment of new facilities to provide viable services and competition against incumbent operators.

18. Variable planning provisions both reduce the level of investment and increase delays that occur.

19. From a local government perspective, not all district plans have specific plan rules relating to telecommunications infrastructure. This can cause time delays and uncertainty if an activity is applied for that does not clearly fit within current plan provisions and there is no close precedent to draw from.

20. The proposed standards will contribute to achieving one of Government's top priorities of economic transformation and the aim of creating a higher value economy. The national environmental standards will help to deliver on other goals including:

    - faster and more cost effective delivery of telecommunications facilities;
    - top half of the Organisation for Economic Co-operation and Development (OECD) [broadband] performance by 2010; and

- "… world leader in using information and technology to realise its economic, social, environmental, and cultural goals" (The Digital Strategy 2005).

Policy objective

21. The policy objective is to provide for a nationally consistent planning framework for low impact telecommunications infrastructure on road reserves that will:
    - assist in network and equipment design and equipment sourcing for roll outs,
    - create a reduction in compliance costs and timeframes for service providers
    - reduce the timeframe and lower costs for the availability of new services to consumers
    - contribute to a reduced workload to councils in processing and determining consent applications
    - set an appropriate balance between local participation in community planning and cost effective national infrastructure investment.

22. The national environmental standards have been developed to achieve this objective.

Legislative framework

23. Section 43 of the Resource Management Act (1991) provides for the making of national environment standards, which are regulations made by the Governor-General, by Order in Council. The proposed national environmental standards meet the requirements of this section.

24. Telecommunications operators (and other utility operators for that matter) wishing to install their equipment within the road reserve are required to comply with two separate legislative requirements. Firstly, compliance with local authority requirements under the Resource Management Act that may or may not require resource consent depending on the rules in the relevant district plan. If resource consent is required there is a risk consent could be refused.

25. Secondly, a telecommunications operator must give notice to the road controlling authority under the Telecommunications Act of its intention to work in the road (Road Opening Notice). The road controlling authority will be either the local authority in the case of local roads or Transit New Zealand in the case of state highways[2]. The right of access to the road reserve is subject to reasonable conditions that may be imposed by the road controlling authority and must be complied with.

26. Section 119 of the Telecommunications Act lists a range of criteria for setting reasonable conditions, including safety and access. But the list

[2] In the case of motorways, access can be denied by the road controlling authority.

does not limit the road controlling authority's ability to prescribe other "reasonable conditions" as it may see fit.

27. There is some duplication of process between the Resource Management Act and Telecommunications Act processes that has led several local authorities to use only one of the processes as a proxy for requiring compliance with both. This has lead to considerable variability in terms of expectations and outcomes for telecommunications operators.

28. The proposed standards would provide national consistency under the Resource Management Act for planning requirements for installing cabinets and antennas in the road reserve. However, there remains some uncertainty with regard to the requirements placed on telecommunications companies (and utilities companies in general) through the setting of reasonable conditions by a road controlling authority for access to the road corridor. The scope and type of conditions imposed by road controlling authorities varies throughout the country, creating another layer of uncertainty for telecommunications operators.

29. Some of the variability is being addressed through the work the Ministry for Economic Development is currently progressing on the Management of Utilities' Access to Road, Rail and Motorway Corridors. Cabinet recently agreed to the development of a legally enforceable Code of Practice that will, amongst other things, provide greater certainty around the type and extent of conditions road controlling authorities may place on Road Controlling Authorities. [EDC Min (07) 28/6]. This will help to further clarify the roles and responsibilities of different parties under the Resource Management and Telecommunications Act processes.

Detail of the proposed National Environmental Standards

30. There are four proposed standards relating to the construction and operation of telecommunications infrastructure. The first is a standard that manages the operation and effects of radiofrequency fields that are generated by wireless transmission of information including telephone calls and internet. The radiofrequency field standard would apply to all telecommunications antennas, including radio and TV transmitters.

31. The remaining three proposed standards covering the construction and operation of cabinets and antennas (including noise generated by the operation of the equipment) only apply to structures within the road reserve.[3]

32. In essence, the proposed standards say that:

    a. an activity (such as a mobile phone base station) that emits radiofrequency fields will be a permitted activity provided exposures to the fields comply with the existing New Zealand

[3] Road reserve as used in this paper refers to road that is legally vested as road to a road controlling authority and does not carry the same definition that is contained in the Telecommunications Act.

Standard (NZS2772.1:1999 *Radio-frequency Fields Part 1: Maximum Exposure Levels 3kHz-300GHz);*

b. the installation of telecommunications equipment cabinets in road reserve will be a permitted activity, subject to specified limitations on their size and location;

c. noise emitting from telecommunications equipment cabinets located in road reserve will be a permitted activity, subject to specified noise limits; and

d. the installation of masts and antennas on existing structures in road reserve will be a permitted activity, subject to specified limitations to height and size.

Appendix A contains more detail on the four proposed standards.

National environmental standard for radiofrequency fields

33. An activity (such as the operation of a mobile phone cell site) that generates radiofrequency fields will be a permitted activity provided it complies with the existing New Zealand Standard (NZS2772.1:1999 *Radio-frequency Fields Part 1: Maximum Exposure Levels 3kHz-300GHz);*

34. The proposed standard applies to radiofrequency fields from telecommunications antennas but not to mobile phones themselves.

35. The proposed standard effectively reproduces the existing national guidelines for radiofrequency transmitters[4]. The national guidelines were issued in 2000 to provide direction for local authorities, the public and resource consent applicants on how the effects of radiofrequency transmission facilities can be appropriately addressed under the RMA. However there has been variable uptake by councils, mainly due to the fact that most district plans produced under the RMA were already operative when the guidance was published.

36. The national guidelines are based on the relevant Standards New Zealand standard (NZS2772). The New Zealand Standard is based on international guidelines produced by the International Council for Non-Ionising Radiation Protection (ICNIRP). The New Zealand Standard sets limits for public exposure which are 50 times lower than the level at which health effects may start to occur. The Environment Court has concluded that there are no adverse health effects arising from exposures to radiofrequency fields that comply with the New Zealand Standard.

37. The proposed standard would introduce more restrictive provisions for radiofrequency fields for approximately half of district plans. Approximately 25% of district plans reference an out-of-date New Zealand Standard for radiofrequency fields, and a number of district plans do not contain any rules relating to radiofrequency fields.

38. The standard would enable radiofrequency field exposures from mobile phone transmitters and other telecommunications structures to be controlled in a manner consistent with the national guidelines, the existing

[4] *National guidelines for managing the effects of radiofrequency transmitters* (Ministry for the Environment and Ministry of Health, 2000)

voluntary New Zealand Standard, and international guidance from ICNIRP. The proposed standard would make compliance with NZS2772 mandatory throughout New Zealand, as it would override existing rules in Council plans.

National environmental standard for roadside cabinets

39. The installation of telecommunications equipment cabinets in road reserve will be a permitted activity, subject to specified limitations on their size and location for residential and non-residential areas. The installation of telecommunications cabinets in road reserves is already addressed in district plans. However, there is significant variability across councils on size thresholds and whether or not resource consent is required.

40. All cabinets permitted by the proposed standard will also have to comply with any specific performance standards contained in a district plan relating to any matters not covered by the proposed standard, for example: location, design and or external appearance of utility cabinets in the road reserve.

41. The requirement to comply with any performance standards currently contained in a district plan, maintains the values identified by a community or council through the development of their plan. If particular values have been identified through the district plan process it is appropriate that they continue to be considered. This provides certainty to telecommunications companies that certain development is permitted while ensuring local values such as visual amenity continue to be addressed. The process for inclusion of such areas in a district plan is consultative and very rigorous so there is little risk of undermining the overall intent of the proposed standards.

42. The proposed standard seeks to provide for some equitable allocation of space for roadside cabinets. The proposed standard provides a maximum footprint allowance for a location. Any single cabinet may only take up a specific proportion of that space so the rest of the allowance is available for a further cabinet or cabinets. This aims to avoid a situation where the first cabinet installed by an operator would use up all of the permitted development allowance, thereby forcing subsequent operators to apply for resource consent before installing a cabinet. The proposed standard is considered to be a pragmatic solution to encouraging co-location within the “first-come-first-served” framework of the Resource Management Act.

43. Discussions with industry representatives indicates that the proportionate allowance for a single cabinet is large enough to provide space for co-location of more than one service provider’s equipment within that cabinet.

44. How the space within the cabinets is used is not a Resource Management Act issue as it is subject to regulation by the Commerce Commission.

45. In terms of the status quo, the proposed standard for roadside telecommunications cabinets is more restrictive than the provisions contained in 82% of current district plans.

46. The proposed standards are likely to have the most interest and impact in larger cities, as roadside cabinets are more concentrated in urban areas

and residents are generally more concerned about visual urban amenity. A review of existing rules controlling roadside cabinets in ten metropolitan councils shows that the proposed standard would be:

a. More permissive than five of the metropolitan councils
b. Consistent with two of the metropolitan councils
c. More restrictive than three of the metropolitan councils.

National environmental standard for noise from cabinets

47. Noise from telecommunications equipment cabinets located in road reserve will be a permitted activity, subject to specified noise limits. The proposed standard for noise sets daytime and night-time limits for residential and non-residential areas.

48. Noise is generated from cooling fans associated with the operation of equipment in the cabinet and is proportionate to the work load of the cabinet. The amount of noise coming from a cabinet corresponds to periods of high usage, for example internet usage in residential areas is generally at it highest in evenings and weekends.

49. The proposed standard is largely based on the voluntary Standards New Zealand standards for environmental noise[5]. The New Zealand standards were commissioned by the Ministry of Health and prepared by a committee of environmental noise experts. The standards have recently been revised and the proposed standard incorporates the recently revised New Zealand standard.

50. The Standards New Zealand standard for assessing noise (NZS 6802) gives a range of noise levels as a guideline for the reasonable protection of health and amenity for land used for residential purposes. Noise limits for less sensitive areas (business and industrial) are typically less stringent, as reflected by the proposed standard.

51. A comparison with existing district plan requirements is not possible as the proposed standard would use a new Standards New Zealand standard that no district plans currently refer to. The proposed standard would provide a nationally consistent methodology to measure noise from cabinets, an area where there has been historic debate.

52. Councils generally update to new Standards New Zealand standards when their plans are reviewed – many are coming up for review over the next few years. It is expected that Councils will adopt this standard routinely. Local government representatives were represented in this Standards New Zealand process.

[5] NZS 6801:2008 – *Acoustics – Measurement of Environmental Sound levels* and NZS 6802:2008 – *Assessment of Environmental Sound*

National environmental standard for telecommunications antennas

53. The installation of antennas on existing structures on road reserve will be a permitted activity, subject to specified limitations to height and size. New freestanding cell phone towers are not included in the proposal.

54. The majority of district plans already allow for the installation of antennas as a permitted activity. However, the size threshold varies amongst councils.

55. The main concern for placement of antennas is within residential areas or areas of high amenity value. Potential visual amenity effects of panel antennas may be minimised by being attached to existing structures (co-located). The proposed standard promotes co-locating with existing structures within the road reserve, such as traffic lights or streetlights (refer to Appendix A for an example of co-locating).

56. Any antennas erected under the proposed standard will also have to comply with any specific performance standards contained in a district plan relating to location, design and or external appearance of antennas. This is consistent with the requirements for roadside cabinets and ensures any locally identified values continue to be recognised.

57. The proposed standard places limits on the size of any extensions to existing structures so that any extensions will be in proportion to the original structure with maxima for height and width increases (see Appendix A for details).

Effect of the proposed standards

58. The effect of the proposed standards presented in this paper would be to insert into every district plan in the country new rules regarding radiofrequency fields and the construction and operation of certain types of telecommunications infrastructure. The proposed standards would replace and override any existing district plan rules on the subject material. Councils are not required to change their plans, although experience has been that many will change their plans, through reviews to become consistent with the proposed standards.

Ability to set more stringent standards

59. Councils would not be able to set stricter standards. The proposed standards for telecommunications facilities would override specific plan rules relating to the installation and operation of low impact telecommunications facilities located on road reserve. The only way in which plans can deviate from the proposed standards is to restate that an activity permitted by a standard is permitted, but with terms and conditions in the plan to control effects not covered in the proposed standard. For example, a plan rule could say that roadside cabinets that comply with the proposed standard are permitted provided that the cabinets are painted a specific colour.

60. Were Councils able to alter this baseline set by the proposed standard, this would undermine the intent of the proposed standards and potentially recreate the existing problems.

Consultation requirements

61. Section 44 of the Resource Management Act requires notification and an opportunity for the public and iwi authorities to comment on the proposed national environmental standards. The Act does not define a specific process or even require formal consultation.

62. The discussion document "Proposed National Environmental Standards for Telecommunications Facilities" was notified on 16 June 2007. Consultation ran for eight weeks until 10 August 2007. Public notices were placed in 15 daily newspapers on 16 June 2007. A press release was issued by the Ministry for the Environment on 15 June 2007.

63. Copies of the discussion document were sent to:

- Planning managers of every regional and territorial authority
- Chief executives of every iwi authority
- Resource Management Law Association
- Telecommunications Users Association of New Zealand
- New Zealand Utilities Advisory Group
- Road Controlling Authorities forum
- New Zealand Planning Institute
- Public and community Interest groups who had previously expressed an interest
- Telecommunication companies

64. Public workshops were held in Auckland, Manukau, Wellington, Christchurch and Dunedin to present details of the proposed standards and provide the opportunity for interested parties to discuss the proposals with Ministry for the Environment staff. Workshops were specifically held in metropolitan areas because of the issues with allocation of limited space that arise in these areas. Officials also met individually with other government departments, government agencies, telecommunications companies and community groups.

65. Eighty two submissions were received on the proposals. A total of 33 submissions were in support of the proposals, 41 oppose the proposals and the remainder did not state a position.

66. The key issues raised in submissions were, in no particular order:

- Potential health effects of radiofrequency fields;
- An opportunity to facilitate investment in infrastructure by reducing development costs;
- Loss of local input in the decision making process for telecommunication infrastructure;
- Potential for proliferation of cabinets and antennas leading to increased clutter in the streetscape and effects on amenity;
- Provide national consistency and certainty for service providers seeking to expand or roll out a new network; and
- Safety implications of roadside telecommunications equipment. Safety is not considered further as it is "core business" for road controlling authorities. The Telecommunications Act as it applies to road

controlling authorities contains explicit reference to consideration of safety issues.

67. A report on submissions was published on the Ministry for the Environment's website and a copy sent to every submitter.

68. Ministry for the Environment officials held discussions with numerous stakeholders from local government, as well as industry representatives and Ministry of Health officials. Aspects of the proposal were modified in response to submissions and as a result of subsequent discussions with stakeholders.

69. In particular, changes were made to make it easier for local government to implement the standard. In response to concerns raised by submitters it is proposed to tighten some requirements to ensure the impact of any new infrastructure would be minor. Key changes were:

- Strengthen links to district plan provisions where specific values such as amenity have been identified as a local issue.
- Reducing the potential for street clutter through increased minimum separation distances between cabinets
- Aligning the noise standards with the new Standards New Zealand standard.
- Future proofing the standards by not specifying specific types of panel antennas and including allowances for dish antennas.
- Limiting extensions to roadside structures to one extension only - to prevent incremental height creep.

Cost-benefit analysis

70. An economic analysis of the potential impacts of the national environmental standard was undertaken. Results are summarised in the attached regulatory impact statement.

71. The cost benefit analysis found that without the proposed standards, roll-out of new telecommunications services and enhanced capacity will face; the cost of resource consent application processes, increasing costs and potentially slowing the rate of roll-out and the availability of new services across the community. With the proposed standards, the main costs and benefits are likely to be:

- Reduced costs for industry in obtaining resource consents, assessing each district's particular needs, and uncertainty about the acceptability of particular roadside solutions;
- Reduced costs in processing consents for councils (over and above what they recover from applicants through charges);
- Benefits for consumers from faster roll-out and access to new services, and from more choice and competition among operators;
- Costs for government in supporting introduction of the standard;
- Potential cost for the community in loss of local control over environmental effects in the roadside.

72. Costs and benefits have been assessed over a 10-year period, instead of the more widely used 20-year period, because this aligns with the 10-year review cycle for district plans under the RMA and the rapidly changing nature of telecommunications technology and infrastructure. Total costs associated with the proposed standards were estimated at $4.8 million over 10 years.

73. The quantification of the total benefits directly attributable to the national environmental standard is difficult. However the estimated total benefits attributable to the proposed standards are estimated at $94.4 million over 10 years, with the majority of the estimated benefits attributable to cost savings to industry and local government through a reduction in resource consent processing. Additional benefits, that have not been quantified, are attributable to the facilitation by the proposed standards of faster roll out of services, improved services and more choice for consumers.

74. Because the quantified net benefit is so large, the result of the quantified analysis is not sensitive to substantial changes in the input assumptions used.

75. In addition to an assessment of the costs and benefits of the standards, Section 32 of the Resource Management Act requires that before a regulation is made an evaluation is undertaken that examines:

    a. the extent to which each objective is the most appropriate way to achieve the purpose of this Act; and

    b. whether, having regard to their efficiency and effectiveness, the policies, rules, or other methods are the most appropriate for achieving the objectives.

76. This broader assessment provides an analysis of the policy development process and takes account of non-monetary factors that are overlooked by a pure cost benefit assessment. The Section 32 report will be published once the regulations have been finalised.

Tools to assist local government

77. The Ministry for the Environment intends to produce guidance material to assist councils to implement the standard. This will include:

- A users' guide to outline the requirements of the regulation in plain English for local government and industry.
- Guidance for local government on how the standards will affect their district plans and what is required to incorporate the material into plans.

Consultation

78. The following agencies have been consulted on this paper and their views taken into account: Department of Building and Housing, Department of Internal Affairs, Ministry of Consumer Affairs, Department of Conservation, Land Information New Zealand, Ministry of Economic Development, Ministry of Health, Te Puni Kōkiri, Ministry of Transport, Ministry of Women's Affairs. The Department of Prime Minister and Cabinet has also been advised about this paper.

79. The Department of Internal Affairs sought clarification on the impact of the proposed standards on local government, in particular the ability for Councils to retain local decision making powers.

Financial implications

80. This paper does not contain specific recommendations on expenditure or revenue.

Human rights

81. There are no inconsistencies with the rights and freedoms contained in the New Zealand Bill of Rights Act 1990 and the Human Rights Act 1993.

Legislative implications

82. The proposed standard will be developed as a regulation made by the Governor-General, by Order in Council.

Regulatory impact analysis

83. A regulatory impact statement (RIS) is attached to this paper. 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 the Regulatory Impact Analysis Unit considers the analysis and the RIS to be adequate. A draft version of the RIS was circulated with the Cabinet paper for departmental consultation.

84. This document includes an analysis of alternatives to the national environmental standard, and the basis for deciding that a national environmental standard is the most appropriate option.

Gender implications

85. There is no gender implications associated with this paper.

Disability perspective

86. There are no implications for people with disabilities in this paper.

Publicity

87. The regulations will not come into force until at least 28 days after they have been notified in the New Zealand Gazette. I will release press statements prior to the regulations being completed, and the Ministry for the Environment will develop an implementation package for district councils and industry.

88. If the standards are approved, I propose that this submission, including Cabinet decisions, and any Annexes, (including the Regulatory Impact Statement), will be publicly released and posted on the Ministry for the Environment website,

Recommendations

1. The Minister for the Environment recommends that the Committee:

1. Note that the proposed national environmental standards for telecommunications facilities will contribute to the government's goal of economic transformation, and aid in delivering the digital strategy and achieving the goal of being in the top half of OECD countries for broadband performance by 2010.

2. Note that consultation has been undertaken on the national environmental standards for telecommunications facilities in accordance with the requirements of the Resource Management Act 1991;

3. Note that analysis has demonstrated that a national environmental standard is the most effective and efficient planning instrument to achieve the objective of providing for nationally consistent and certain regulatory planning provisions, to assist in telecommunication network and equipment design and equipment sourcing for roll outs, and a reduction in compliance costs and timeframes for telecommunications infrastructure;

4. Agree that regulations be developed for telecommunications facilities based on the subject matter outlined within this Cabinet paper;

5. Invite the Minister for the Environment to instruct Parliamentary Counsel to draft national environmental standards under the Resource Management Act 1991 for telecommunications facilities;

6. Agree that the Minister for the Environment may publicly release this paper, including Cabinet decisions, and any Annexes, including the Regulatory Impact Statement, once Cabinet has made a decision.

7. Agree to the publication of the Resource Management Act Section 32 cost-benefit report on the proposed national environmental standards for telecommunications facilities, subject to minor editorial changes to be agreed by the Minister for the Environment.

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Hon Trevor Mallard
Minister for the Environment
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Appendix A – Proposed National Environmental Standards for Telecommunications

Pursuant to s43B of the Resource Management Act 1991, no rule or resource consent shall be more stringent than the national environmental standards for telecommunications facilities.

1. Radiofrequency field exposures from wireless telecommunications infrastructure

Permitted activity

An activity by a telecommunications operator that generates radiofrequency fields is a permitted activity provided the following conditions are met.

1. Exposures to the radiofrequency fields generated by the activity (in conjunction, where applicable, with exposures to radiofrequency fields from existing transmitters in the vicinity) comply with NZS2772.1: 1999 Radio-frequency Fields Part 1: Maximum Exposure Levels 3 kHz – 300 GHz ("the New Zealand Standard").
2. Prior to commencing any activity that generates radiofrequency fields, the following are sent to and reviewed by the relevant Council:
    a. written notice of the location of the facility or proposed facility; and
    b. a report prepared by a radio engineer/technician or physical scientist containing a prediction of whether the New Zealand Standard will be complied with.
3. If the report provided to the Council under condition 2(b) predicts that exposures will reach 25 percent of the exposure limit set for the general public in the New Zealand Standard, then, within three months of radiofrequency emissions commencing, a report from an appropriately qualified person/organisation (for example a Radiofrequency engineer) certifying compliance with the New Zealand Standard, based on measurements at the site will be provided to the Council.

2. Telecommunications equipment cabinets within road reserves

Telecommunication cabinets in road reserves shall be permitted activities subject to the following restrictions:

Limitations on cabinet size and location (Above ground level)	**Adjacent area type**
Maximum height: 1.8m Maximum footprint of any single cabinet: 1.4m^2 Maximum footprint occupied by all cabinets:1.8m^2 Maximum number of network utility cabinets exceeding 900mm in height in any location: one[6] Minimum separation distance from any existing utility cabinet exceeding 900mm in height: 30m (except where specific provision by way of dedicated areas has been made for utilities infrastructure within the road reserve)	Residential
Maximum height: 2m Maximum footprint: 2.0m^2 Minimum separation distance from any existing utility cabinet exceeding 900mm in height: 30m (except where specific provision by way of dedicated areas has been made for utilities infrastructure within the road reserve)	Non-residential

All cabinets permitted by this standard shall comply with:

- Any specific performance standards contained in a plan or design guide (that forms part of a district plan) relating to design or external appearance of utility cabinets in the road reserve.

The relevant district plan rules shall prevail over this standard in the following circumstances:

- Where the cabinet is located in an area, or adjacent to a site, to which the district plan applies rules protecting historic heritage, or visual amenity values[7], for example:
    - Within view shafts identified in district plans (covered above)
    - Commercial areas i.e. CBD, shopping precincts (covered above)
- where any excavation work to install the cabinet needs to be undertaken within the drip line or branch spread of any tree or vegetation.
- where the cabinet is proposed to be located on the seaward side of the road centre-line, and the road abuts the Coastal Marine Area
- where any above ground power supply is not contained within the cabinet

[6] Cabinets in new subdivisions are often located in areas allocated for utilities, for example dedicated areas of road reserve are provided. In these cases it would be considered a reasonable condition of a Road Opening Notice that the cabinets be located within those areas.

[7] Areas identified as historic, historic heritage, cultural sites or open space

Other considerations:

Cabinet means either an individual cabinet, or a cluster of cabinets. Provided that in the case of a cluster, these cabinets are interdependent on each other to provide a service, and that the spacing between adjacent cabinets is no more than 500mm, and that the total dimensions of all cabinets (excluding the space between the cabinets) does not exceed the maximum height and area restrictions set out in this standard.

An additional cabinet can be abutted to an existing cabinet, so long as the combined size or foot print of the cabinets does not exceed the maximum specified in this standard.

Issues to do with location of structures to ensure they do not create a safety hazard, including frangibility of structures are addressed by road controlling authorities through the provisions of the Telecommunications Act 2001. The development of a national code of practice for utilities access to the road corridor and the development of a consistent set of reasonable conditions that can be required by road controlling authorities will provide clarity and national consistency.

3. Noise from telecommunications equipment located within road reserves

Noise from telecommunication cabinets located in road reserves shall be a permitted activity provided that the following noise limits are not exceeded:

Residential, Mixed Use, Rural and Open Space/Reserve Areas

All Days	Noise Limit
Day time (0700 – 2200)	50dBA $L_{Aeq\ (5\ min)}$
Night time (2200 – 0700)	40dBA $L_{Aeq\ (5\ min)}$) 65dBAL_{max}

Business and Industrial Areas (and any other non-residential zones)

All Days	Noise Limit
Day time (0700 – 2200)	60dBA $L_{Aeq\ (5\ min)}$
Night time (2200 – 0700)	60dBA $L_{Aeq\ (5\ min)}$

Noise shall be measured in accordance with NZS 6801:2008 *Acoustics – Measurement of Environmental Sound*, and the basis for assessment shall be NZS 6802:2008 − *Assessment of Environmental Sound.* This includes provision for averaging during daytime such that a maximum daytime noise level of 55dBA LAeq (5 min) in residential, mixed-use and rural zones at the measurement point is allowed, provided that the average noise level over the full day (07.00 to 22.00) does not exceed 50dBA LAeq. No averaging is allowed at night-time.

4 Masts and Antennas

Permitted activities

The replacement of, or addition to, any existing utility structure in the road reserve of antennas and their associated support structures by telecommunications operators shall be permitted activities subject to the following restrictions:

- the new or altered structure does not exceed the maximum diameter of the structure it replaces or modifies by more than 50%,
- in the case of antennas or any associated covering shroud, the antennas and/or shroud do not extend more than 30% or 3 metres, which ever is the lesser, above the highest point of the existing structure prior to the addition of any equipment for telecommunications purposes.
- Antennas extending above the highest point of an existing structure shall be contained within maximum dimensions of a cylindrical shape 2.0m high by 0.5m diameter, located along the centre-line of the pole.
- Dish antennas are permitted up to a maximum diameter of 380mm, protruding from the centre line of the pole by no more than 0.6m up to a maximum of two antennas per pole.

This does not apply to new or existing structures that are primarily for the purposes of supporting telecommunications antennas.

Provided that any rule in a district plan shall take precedence over this standard in the following circumstances:

1. Where the support structure or antenna(s) is located in a road reserve directly adjoining a site containing a building listed as having heritage value (this provision shall apply where a site containing the heritage building is located on the same side of the road reserve centre line as the support structure or antenna(s)).
2. Where the support structure or antenna(s) is located in a road reserve contained within or directly adjacent to any heritage precinct or area of landscape importance identified in a district plan (where the road reserve itself is not contained within the identified precinct or area, this provision shall apply where a site identified as being within a heritage precinct or area of landscape importance is located on the same side of the road reserve centre line as the support structure or antenna(s)).

Comments

- The standard includes a maximum envelope size for panel antennas and makes provision for the addition of up to two small dish antennas on any structure.
- The use of “prior to the addition of any telecommunications equipment” is intended to convey the meaning that this is a one-off height control, and any revisits must stay within the original envelope.

- Issues to do with location of structures to ensure they do not create a safety hazard, including frangibility of structures are most appropriately addressed by the road controlling authority through the legal requirement for a Road Opening Notice under the Telecommunications Act and reasonable conditions that can be attached by a road controlling authority to the notice.

Definitions:

Antenna – means any device operated by a telecommunications operator that receives or transmits radio communication or telecommunication signals.

Cabinet – means an equipment casing, operated by a telecommunications operator usually set on a concrete foundation plinth, used primarily for the purposes of operating a telecommunications network. The cabinet may contain telecommunications equipment, batteries, line terminals, and cooling systems such as heat exchangers and fans, and other such devices and equipment that are required to operate a telecommunications network. Further more: **'Cabinet'** means either an individual cabinet, or a cluster of cabinets. Provided that in the case of a cluster, these cabinets are interdependent on each other to provide a service, and that the spacing between adjacent cabinets is no more than 500mm, and that the total dimensions of all cabinets (excluding the space between the cabinets) does not exceed the maximum height and area restrictions set out in this standard.

Mast – means any pole, tower or similar structure designed to support antennas to facilitate telecommunications, radio communications and broadcasting. Operated by a telecommunications operator

Road Reserve: - means the full extent of the legal road corridor vested in either the local Council or Transit New Zealand. This includes the formed vehicle carriageway and the road berms areas between the vehicle carriageway and adjacent properties.

Telecommunications Operator: - has the same meaning as network operator in Section 5 of the Telecommunications Act 2001

Appendix B – Examples of Telecommunications Facilities in the Road Reserve

Panel antennas on streetlight with equipment cabinet below.

Panel Antenna Dimensions:
1.3m long
0.19m wide

Equipment Cabinet Dimensions:
Height: 1.22m
Width: 0.96m
Depth: 0.40m
Area: 0.38m^2

Note: this example would be permitted under the proposed standard (unless located next to a heritage or landscape area).

Panel Antennas
Typical extension to an existing roadside structure. Note cabinet associated with the antennas to the left of the Give Way sign.

Typical roadside cabinet (Telstra – Saturn)

Height: 1.40m
1.76m wide
0.40m deep
Area: 0.7m^2