

SECTION 23: NETWORK UTILITIES

CONTENTS

23.1	Introduction	1
23.2	Resource Management Issues	2
23.3	Objectives and Policies	3
23.4	Methods	6
23.5	Rules: Note for Users	6
23.6	Rules: Permitted Activities	7
	<i>R23.6.1 Permitted Activities – Relationship of the Network Utilities Section to the District Plan as a Whole</i>	<i>7</i>
	<i>R23.6.2 Permitted Activities</i>	<i>8</i>
	<i>R23.6.3 The Surface Mounting of Telecommunication Lines Provided that:</i>	<i>11</i>
	<i>R23.6.4 Operation, Maintenance and Minor Upgrading of Existing Electricity Structures</i>	<i>11</i>
	<i>R23.6.5 Activities Within the National Grid Yard</i>	<i>12</i>
23.7	Rules: Controlled Activities	13
	<i>R23.7.1 Controlled Activities</i>	<i>13</i>
23.8	Rules: Restricted Discretionary Activities	13
	<i>R23.8.1 Construction, alteration or Addition to a Network Utility, Building or Structure Housing a Network Utility which does not Comply with Permitted Activity Performance Standards</i>	<i>13</i>
	<i>R23.8.2 Construction and Alteration of Buildings and Structures within 100m of the Turitea (Linton) National Grid Substation and 25m of the Bunnythorpe National Grid Substation is a Restricted Discretionary Activity with regard to:</i>	<i>14</i>
23.9	Rules: Discretionary Activities	14
	<i>R23.9.1 Discretionary Activities</i>	<i>14</i>
23.10	Rules: Non-Complying Activities	15
	<i>R23.10.1 Non-Complying Activities</i>	<i>15</i>
	<i>R23.10.2 Activities within the National Grid Yard</i>	<i>15</i>
	<i>R23.10.3 Runway End Protection Areas</i>	<i>15</i>

23.11 Rules: Prohibited Activities	16
<i>R23.11.1 Prohibited Activities</i>	<i>16</i>
Map 23.1 Bunnythorpe National Grid Substation Setback	17
Map 23.2 Turitea Linton National Grid Substation Setback	18

23. NETWORK UTILITIES

23.1 Introduction

This section of the District Plan contains the provisions that relate to network utilities and associated infrastructure within Palmerston North City and include water supply and distribution systems, irrigation systems, sewerage and trade waste reticulation and treatment systems, stormwater drainage systems, telecommunication and radio communication networks, electricity transmission and distribution network and natural gas high pressure transmission and reticulation networks.

Infrastructure and physical resources such as roading and rail networks and airports are also considered network utilities under the Resource Management Act, however provisions for these types of networks are set out separately in this Plan – for road and rail, refer to Section 20 – Land Transport. For provisions relating to Palmerston North Airport see Section 13.

Network utilities are established, maintained and operated within Palmerston North City by a number of providers, such as Crown agencies, Manawatu-Wanganui Regional Council, State-Owned Enterprises, trading enterprises and private companies. The Council is also a provider of network utilities and services through its provision of water, sewerage and stormwater reticulation, including sewage treatment plants and water treatment plants.

The Regional Policy Statement (RPS) for the Manawatu-Wanganui Region, which is included in the Horizons One Plan, recognises the regional and national importance of a range of infrastructure in the region. The RPS requires that the City Council have regard to the benefits that derive from regionally and nationally important infrastructure and utilities, and that the establishment, operation, maintenance and upgrading of such infrastructure be provided for in the District Plan. The RPS also requires that the Council ensure that adverse effects from other activities on network utility infrastructure are avoided as reasonably practicable.

With respect to activities related to the transmission of electricity, the Council is required to give effect the National Policy Statement on Electricity Transmission (NPSET) which was gazetted in 2008. It applies to activities associated with the establishment, operation, maintenance and upgrade of the National Grid. The overarching objective of the NPSET 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.

The Council is also required to have regard to the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 (NESETA), which sets out the controls for an activity that relates to the operation, maintenance, upgrading, relocation, or removal of an existing electricity line. The rules make explicit reference to those circumstances in which the NESETA overrides the provisions of the District Plan, and also indicates, where applicable, which regulations of the NESETA should be referred to.

Both the NPSET and NESETA apply to the assets owned or operated by Transpower New Zealand Limited only.

The provision of telecommunication facilities and associated infrastructure inside the road reserve is an area of network utilities that is largely regulated by means of a National Environmental Standard. Outside of the road reserve, the establishment, maintenance, operation and upgrade of the telecommunication facilities is regulated through the rules in the District Plan, other than with respect to radiofrequency fields where compliance with Regulation 4 of the NESTF is required.

The relationship between the National Environmental Standards for Electricity Transmission and

Telecommunication Facilities and the rules in this Plan are explained in more detail in the introduction to the Rules section

In addition to setting out provisions to manage nationally and regionally important network utilities specified in the RPS, other utilities that are not identified in the RPS are also managed through this section because of their local importance and, in some cases, their potential adverse effects. These include navigational aids and beacons, traffic management and control structures, such as traffic lights, and meteorological structures and activities.

In addition to giving recognition to the fact that network utilities are an essential part of the City's infrastructure, it is also appropriate that the Plan recognises that they can have adverse effects arising from their construction, operation or maintenance. For example, network utilities comprise a wide range of structures with varying degrees of impact on the environment; such things as size and rather utilitarian design of some buildings can have an adverse visual effect on streetscape and residential amenity.

It is also important to recognise that due to technical or operational constraints it is not always possible to avoid, remedy or mitigate the adverse effects associated with the establishment, operation or maintenance of network utilities. In these instances, adverse effects can often best be mitigated through the route and site selection process. The Plan includes provisions to manage adverse effects resulting from the establishment, operation, maintenance and upgrade of network utilities and associated infrastructure, as well as providing a means to recognise and acknowledge the benefits that network utilities have.

This section of the Plan applies to Network Utility Operators who do not wish, or are unable, to operate under the designation procedures under the RMA. The provisions may, however, also be used by Council to help assess any notices of requirement for new designations in conjunction with Section 24 - Designations.

Network utilities are often lineal and traverse many parts of the City, and often across multiple zones. For this reason, the provisions in this section apply to network utilities throughout all zones of the city. Rules from other sections of the Plan do not apply to network utilities managed in this section, unless stated otherwise.

23.2 Resource Management Issues

The following resource management issues were identified as pertaining to Network Utilities:

1. The social, economic, and cultural well-being and health and safety of people and communities living and working in Palmerston North relies on the establishment, operation, maintenance and upgrade of network utilities and associated infrastructure.
2. The actual and potential adverse effects on the environment resulting from the establishment, operation, maintenance and upgrade of network utilities and associated infrastructure.
3. The operation, maintenance upgrade and development of regionally or nationally important network utility structures or activities can be adversely affected by the inappropriate location or intensification of activities.

Explanation

Network utilities provide important and essential services to the City's communities. The health and wellbeing of those living and working in Palmerston North City, and its economy, is largely dependent upon the provision of effective and efficient network utilities and infrastructure. It is therefore important that local, regional and national benefits of network utilities be recognised, and adequate and appropriate provision be made for the establishment, maintenance, upgrade and operation of network utilities and activities in the Plan. However, it is also important that the Plan allow for the effective management of potential adverse effects network utilities and activities may generate on the receiving environment.

Network utilities comprise a wide range of structures with varying degrees of impact on the environment. As well as impacting upon visual amenity, the establishment, operation, maintenance and upgrade of network utilities can lead to other adverse effects, such as noise and emissions. There may also be potential or perceived adverse effects on public health and safety.

As well as the potential for network utilities to have adverse effects on the environment, other activities can have

adverse effects, including reverse sensitivity effects on network utilities. Inappropriate subdivision, use and development may result in adverse effects on network utilities and/or restrict access to such utilities including the ability to undertake maintenance or upgrade work. Reverse sensitivity can occur when sensitive activities, such as residential activities, schools, hospitals or places of worship, locate near to, or intensify by, existing network utilities and constrain the operation or expansion of those utilities. An example would be the intensification of residential land use near to existing high voltage power lines. This may mean that the local, regional or national benefits of important network utilities is compromised.

23.3 Objectives and Policies

Within the broad framework of the City View objectives in Section 2 the following specific objectives and policies have been identified for the city:

OBJECTIVE 1

To recognise the benefits of network utilities of regional or national importance to social and economic well-being by providing for the operation, maintenance, and upgrading and development of existing network utilities of regional or national importance.

POLICIES

To recognise the following as regionally or nationally important network utilities within the City:

- i. Facilities for the generation of more than 1MW of electricity and their supporting infrastructure where the electricity generated is supplied to the electricity distribution and transmission networks;
- ii. The National Grid, and electricity distribution and transmission networks defined as the system of transmission lines, sub-transmission and distribution feeders (6.6kV and above) and all associated substations and other works to convey electricity;
- iii. Pipelines and gas facilities used for the transmission and distribution of natural and manufactured gas;
- iv. Telecommunications and radio communications facilities;
- v. Public or community sewage treatment plants and associated reticulation and disposal systems;
- vi. Public water supply intakes, treatment plants and distribution systems; and
- vii. Public or community drainage systems, including stormwater systems.

1.1 To show the National Grid network on the relevant District planning maps.

OBJECTIVE 2

To provide for the operation, maintenance, upgrading and development of existing network utilities of regional or national importance and the establishment of new regionally or nationally important network utilities.

POLICIES

- 2.1 To permit the operation, maintenance and upgrading of existing regionally or nationally important network utilities where such works or activities can be carried out without significantly changing the character, intensity or scale of the adverse effects associated with them.
- 2.2 To enable the operation, maintenance and upgrading of existing regionally or nationally important network utilities and the establishment of new regionally or nationally important network utilities, provided that the adverse effects are avoided, remedied or mitigated, having regard to:
 - i. the benefit of the works;

- ii. any functional, technical and operational requirements and constraints; and
 - iii. the way adverse effects have been managed through the route and site selection process.
- 2.3 To avoid, or as appropriate remedy or mitigate, the potential for adverse effects, including reverse sensitivity effects on regionally or nationally important network utilities from incompatible new subdivision, use or development occurring under, over or adjacent to regionally or nationally important network utilities.
- 2.4 To avoid the establishment or intensification of sensitive activities, incompatible new subdivision, use and development within defined National Grid Yards and National Grid Subdivision Corridors.
- 2.5 To notify owners or managers of network utilities of regional or national importance of consent applications that may adversely affect the resources they own or manage.

OBJECTIVE 3

To recognise and provide for the establishment, operation, maintenance and upgrading of network utilities and associated activities in the City, while ensuring that the adverse effects of those activities on amenity, landscape, health and safety, and cultural and heritage values in both urban and rural environments are avoided, remedied or mitigated

POLICIES

- 3.1. To enable the establishment, operation, maintenance and upgrading of network utilities and associated activities resulting in minor or less than minor adverse environmental effects throughout the City.
- 3.2. To ensure that network utilities associated with new land development are designed, located, developed, and constructed in accordance with the Council's Engineering Standards for Land Development.
- 3.3. To consider the operational and technical requirements and constraints of network utilities and the benefits that the network utilities provide to the economic, social and cultural functioning of the City.
- 3.4. To require the placement of network utilities underground unless:
- there are natural or physical features or structures, or technological and operational constraints that makes underground placement impracticable or unreasonable;
 - they are of a temporary nature and required for emergency purposes or critical events;
 - they are of a nature that can only operate above ground;
 - in the case of lines, they traverse any Rural Zone or roads within the Rural Zone.
- 3.5. To encourage the co-location of structures and sharing of network utility channels and corridors where this is operationally feasible, to enable the efficient construction, installation, operation, upgrading and maintenance of network utilities, and to reduce their potentially adverse visual effects on the environment.
- 3.6. To encourage the use of roads as network utility corridors in accordance with the National Code of Practice for Utility Operators' Access to Transport Corridors.
- 3.7. To ensure that the provision and operation of utilities that cross jurisdictional boundaries is managed in a consistent and integrated manner;
- 3.8. To encourage the appropriate use of designations for new network utilities and extensions to existing network utilities that are not designated.
- 3.9. To encourage network utility providers to engage with communities that may be significantly adversely affected by the establishment of new network utilities and by their subsequent operation, maintenance and upgrade.

Explanation

Network utilities form an essential part of the City's physical resource and provide for the community's social, cultural and economic wellbeing. Failing to adequately provide for network utilities may result in the desired level of wellbeing and quality of life not being achieved in the City.

The first objective seeks to ensure the importance of regionally and nationally important network utilities within the City is recognised and give effect to the Regional Policy Statement and the NPS on Electricity Transmission. This objective and supporting policies are focused on recognising the benefits that these regionally and nationally important network utilities have through ensuring that these benefits are protected from incompatible subdivision, use and development.

Policy 1.1 identifies types of regionally and nationally important network utilities within the City. Policy 1.2 requires that National Grid infrastructure, whether designated or not, be shown on the Planning Maps. Such identification is in accordance with the requirement of Policy 12 of the NPSET, and, in respect of the National Grid, is key to achieving Objective 1. Generally, it is anticipated that new, and extensions to existing, regionally and nationally important network utilities will be identified on Council planning maps by network utility operators through a notice of requirement for designation process. The mapping of the local electricity distribution network and local gas distribution lines, and the reticulation and distribution network association with public water and wastewater networks that are not designated is not feasible.

Objective 2 seeks to ensure that the operation, maintenance and upgrade of existing, and the establishment of new regionally and nationally important network utilities are provided for in the City. Policies 2.1 and 2.2 provides for operation, maintenance and upgrade whilst managing the adverse effects of such work, within a decision-making framework that allows the national, regional and local benefits of sustainable, secure and efficient network utilities, including the National Grid, to be recognised and provided for. Some of these benefits include:

- The maintenance of community public health and wellbeing through the provision of essential services such as the supply of potable water and collection, transfer and treatment of sewage and stormwater;*
- The maintained and improved security of supply of electricity and gas to meet the community's needs; and*
- The efficient transfer of information and data to meet the social and economic needs and aspirations of the community.*

The location of inappropriate new subdivision, use or development of land in proximity to existing regionally or nationally important network utilities has the potential to compromise the efficient operation, maintenance and upgrade of such networks and has the potential to compromise the safety of the community. This can reduce the benefits of that network utility, and adversely affect the safety and amenity values of the community. Policy 2.3 requires that any potential adverse effects (including reverse sensitivity effects on regionally or nationally important network utilities are appropriately managed, with the priority given to avoiding adverse effects, where practicable, on those utilities. The Council will seek, at the time of rezoning, to introduce new provisions to manage those potential reverse sensitivity effects on existing or designated regionally or nationally important network utilities. Any applications for subdivision that involve potential intensification of land located in proximity to regionally significant network utilities will require assessment in terms of the potential effects on those utilities as well as consultation with the relevant network utility operator.

Policy 2.4 recognises the importance of the National Grid and seeks to protect the continued operation and functioning of that network. The Policy provides for the establishment of setback distances for sensitive activities new subdivision and development in relation to the National Grid as the principle mechanism by which potential reverse sensitivity effects can be appropriately managed in order to ensure the safe, secure and efficient use and development of regionally and nationally important network utilities and the safety and amenity values of the community. The rules governing subdivision in the National Grid Subdivision Corridor are located in the Subdivision section. This is so as to ensure that Plan's requirements in respect of subdivision in the National Grid Subdivision Corridor are accessible and transparent to all users of the Plan.

Objective 3 provides a decision-making framework for network utilities that are not identified as regionally or nationally important. The provisions designed to achieve Objective 3 are also relevant in the determination of any resource consent application related to a network utility of regional or national importance. The Objective ensures that such network utilities are recognised and provided for, and that any adverse effects associated with the establishment, operation, upgrade and maintenance of such networks are appropriately managed.

Policy 3.1 enables the establishment, operation, maintenance and upgrading of network utilities that are anticipated to have minor or less than minor effects. In some cases, a level of adverse effects may need to be accepted in recognition of the necessity for those network utilities and to allow for their operational requirements. Policy 3.2 refers users of the Plan to the Council's Code of Engineering Standards for Land Development as the appropriate standard for physical works in the City. Policy 3.3. provides the decision-making framework within which to consider applications for resource consent and seeks to balance the benefits of network utilities with effects on the local environment. Policy 3.4 emphasises the Council commitment, as expressed in the Council's Sustainable City Strategy 2010, to the undergrounding of network utility infrastructure where practicable to maintain and enhance the City's visual amenity. Policies 3.5 and 3.6 encourage network utility operators to employ methods that will contribute to the reduction of adverse impacts arising from the installation, establishment and operation of network on residential and visual amenity, and promote the efficient construction and installation, and on-going maintenance and upgrade of network utilities. Policy 3.7 seeks to ensure that the Council's provisions in respect of Network Utilities that cross-jurisdictional boundaries are consistent with provisions in other Districts. Policy 3.8. recognises that in some circumstances, the designation process is an efficient means by

which network utility activities can be comprehensively provided for in a district plan. Policy 3.9 seeks to encourage network utility operators to engage with communities affected by the establishment, operation, maintenance and upgrade of network utilities.

23.4 Methods

The following District Plan methods will give effect to the above objectives and policies:

- Rules, performance standards and matters of control and discretion to guide assessment of the establishment, operation, maintenance and upgrading of network utilities.
- Planning maps that identify the location of designated network utilities, and both designated and undesignated sections of the National Grid, within the City.
- Provision of rules through the Plan, where necessary, to manage reverse sensitivity effects of activities (especially sensitive activities) locating in proximity to regionally or nationally important network utilities. Encourage designations for new network utilities and extensions to existing network utilities that are not currently designated.
- Provision of advice notes for both permitted activities and activities requiring resource consent identifying relevant national and international codes and standards that also apply to network utilities in addition to the District Plan's rules and assessment framework.
- Administer, monitor and enforce compliance with the Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2008 and the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.

Other non-District Plan methods that will give effect to the above Objectives and Policies include:

- Compliance with relevant national and international codes and standards that also apply to network utilities.
- Building and maintaining relationships with network utility providers.
- Encouraging network utility providers to engage with the local community when considering new network utilities within the City.

Most network utility operators have empowering legislation outside the Resource Management Act, covering matters such as health and safety (e.g. the Telecommunications Act 1987, the Electricity Act 1992 and the Gas Act 1992). Operators will also often work within model industry codes and model standards, for example telecommunications facilities with NZS 6609.1 and 2, 1990: Radio Frequency Radiation. Similarly, by-law provisions under the Local Government Act 2002 provide a means for Council to set standards for utilities under their control. As such, these are established additional methods which may also achieve the Section's objectives and policies.

23.5 Rules: Note for Users

As discussed in the introduction to this section, the rules in this section of the District Plan shall apply to network utilities across the City. The rules in this Section are stand-alone provisions for those activities and the provisions of other sections of the Plan, with the exception of Section 22 – Natural Hazards, do not apply to network utilities managed within this section unless specifically stated otherwise. There are also some activities that have a network utility function not listed in this section, but which have been specifically provided for in certain zones, for example wind farms in the Rural Zone.

National Environmental Standards

There are two relevant National Environmental Standards (NES) which affect Network Utilities. These are the:

- The Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations (NESETA); and
- The Resource Management (National Environmental Standards for Telecommunications

Facilities) Regulations (NESTF).

The NES for Telecommunications Facilities provides for a number of activities associated with the installation of telecommunications facilities as Permitted Activities and establishes the performance standards and standards for them. The activities provide for four things:

- An activity (such as a mobile phone transmitter) that emits radio-frequency fields is 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).
- The installation of telecommunications equipment cabinets along roads or in the road reserve is a permitted activity, subject to specified limitations on their size and location.
- Noise from telecommunications equipment cabinets located alongside roads or in the road reserve is a permitted activity, subject to specified noise limits.
- The installation or replacement of masts and antennas on existing structures alongside roads or in the road reserve is a permitted activity, subject to specified limitations to height and size.

The existence of the NESTF does not mean that activities not permitted by the NES are prohibited, but rather that in some cases resource consents will need to be applied for and these applications will be assessed against the provisions of this section of the Plan – as if the NES did not exist. Moreover, complying with the NES alone may not be sufficient, i.e. in the event that the Rules in the Plan apply a more stringent test, for example in the case of restrictions placed on works within the dripline of a notable tree or with regard to historic and cultural heritage provisions. Therefore, it is important the NES be read in conjunction with the rules in this Plan because some of the rules may still be applicable.

The NESETA relates to the 'effective operation, maintenance and upgrading of the existing National Grid'. Specifically, the provisions relate to existing high voltage electricity transmission lines owned and operated by Transpower New Zealand Limited ("Transpower"). The definition of a 'transmission line' under the NES is broader than its meaning in transmission engineering terms. For instance, it includes underground cables, telecommunication cables, and any facilities or structures used or associated with transmission. Substations are excluded from the definition of transmission line and from activities covered by the NES. Similarly, the NES does not apply to the construction of new transmission lines, or to electricity lines not owned and operated by Transpower or to distribution lines– these are the lines carrying electricity from regional substations to electricity users. The NES applies to existing lines that are relocated or upgraded under these regulations. It does not apply to lines built after 14 January 2010.

NOTE TO PLAN USERS

Notwithstanding any other rules in the District Plan, all electricity transmission activities affecting National Grid lines existing as at 14 January 2010 must comply with the National Environmental Standards for Electricity Transmission Activities and no other Rule or Rules in the Plan shall apply unless required to by virtue of a specific regulation in the NESETA. Copies of The National Environmental Standards are available at: www.mfe.govt.nz.

23.6 Rules: Permitted Activities

R23.6.1 PERMITTED ACTIVITIES – RELATIONSHIP OF THE NETWORK UTILITIES SECTION TO THE DISTRICT PLAN AS A WHOLE

The activities in Section 23 are Permitted Activities in all Zones of Palmerston North City provided that they comply with any specified standards in R23.6.2 - R23.6.4, except where:

- a) The activity is listed as a Controlled, Restricted Discretionary, Discretionary, Non-Complying or Prohibited Activity in Section 23; or
- b) The activity is in the Flood Protection Zone or Flood Prone Area (Section 22) in which case the relevant rules of Section 22 apply.

R23.6.2 PERMITTED ACTIVITIES

The establishment, operation, maintenance and minor upgrade and removal of any of the following (excluding the establishment of rail lines and the operation, maintenance, upgrading, relocation, or removal of existing transmission lines specified in regulation 4 of the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009, and covered by that NES and the maintenance and minor upgrading of existing electricity sub-transmission and distribution lines in accordance with R23.6.4) are Permitted Activities throughout the City provided these comply with the relevant performance standards listed herein.

- (i) Transformers, and lines (including support structures) and ancillary equipment for conveying electricity at a voltage up to and including 110 kV
- (ii) Water and irrigation schemes and all related drains, channels, pipes and necessary incidental equipment.
- (iii) Telecommunications and radio communication lines, links, works, and facilities not otherwise provided for in item (iv) below. or in Permitted Activity R23.6.3.
- (iv) Antennas attached to land, masts, poles, buildings or other structures.
- (v) Pipes for the distribution of natural or manufactured gas at a gauge pressure not exceeding 2000 kilopascals, necessary incidental equipment, including household connections, compressor stations, and equipment ancillary to gas distribution networks including district regulator stations, gas measurement systems and pressure reducing stations.
- (vi) The operation, maintenance and/or minor upgrading of pipes for the transmission of natural or manufactured gas and necessary incidental equipment, including compressor stations.

NOTE TO PLAN USERS

The construction of a new gas transmission pipeline or compressor station or major upgrade to an existing pipeline is not provided for as a permitted activity. This activity requires resource consent under R23.10.2(ii).

- (vii) Underground pumping stations and pipe networks for the conveyance or drainage of water or sewage, and necessary incidental equipment.
- (viii) Water supply wells and pumping stations including ancillary equipment provided such facilities were in existence and operational as at the date on which this provision becomes operative.
- (ix) Navigational aids and beacons.
- (x) Traffic management and control structures, street lighting, street furniture, telephone kiosks and telecommunication cabinets.
- (xi) Meteorological structures and activities.
- (xii) Rail lines and associated infrastructure.

Performance Standards

(a) Height

- (i) All above ground utility structures, except lines, (including support structures) masts, antennas and their brackets or attachments, and building mounted telecommunication cabinets that do not exceed 2m² in area or 2m high, must comply with the maximum height control and any height recession planes for any zone in which they are located. The height recession plane shall not apply to the boundary of a road, road reserve, or service lane. The total footprint of building mounted telecommunication cabinets on any one building shall not exceed 10m² in floor area (measured from the exterior faces of the exterior walls of the cabinet).
- (ii) In the case of antennas attached to a building, their height must be no greater than 5 metres above the applicable part of the height recession plane or maximum height control, whichever is applicable, for the zone in which they are located.
- (iii) In the case of masts, the maximum height (to the top of the antenna, but excluding lightning rods

and GPS antenna) must be no greater than:

Inner Business Zone	25 metres
Outer Business Zone	20 metres
Local Business Zone	12 metres
Industrial Zones	25 metres
Airport Zone	25 metres
Institutional Zone	18 metres
Rural Zone	25 metres
Conservation and Amenity Zone	10 metres
All other zones and places	12 metres

- (iv) In the Inner Business, Industrial and Airport Zones Only – in the case of masts where two or more network utility providers co-locate an additional maximum height allowance of 3m is permitted.
- (v) No utilities structure, including masts but excluding navigational aids and beacons established and operated by or on behalf of Airways Corporation of New Zealand, shall impinge within the take-off climb surfaces or the approach surfaces for the main sealed runway (known as 07/25), transitional side surfaces or the horizontal and conical surfaces above the airport, as specified in R13.4.7 and Figure 13.1 of the Airport section of the Plan.

NOTE TO PLAN USERS

With regard to Performance Standard (a)(v), Airways Corporation of New Zealand is the State-owned Enterprise (SOE) responsible for the installation of air navigation and communications systems which provide guidance to aircraft flying through New Zealand airspace. These systems include navigational aids and beacons.

(b) Noise

Activities shall comply with the noise standards for the Zone in which they are situated or adjoining Zone if located on any road, road reserve or service lane.

(c) Lighting

- (i) Any artificial lighting system shall ensure that its use does not result in an added illuminance, over and above the measured ambient level, in excess of 8 lux measured in the vertical plane at the windows of any residential building on any residentially zoned site.

(d) Undergrounding of Lines and Pipes

- (i) Lines shall be buried below ground except:
 - (a) where lines traverse any Rural Zone, or roads within this Zone.
 - (b) where the maintenance, repair, replacement and minor upgrading of existing overhead lines is involved.
 - (c) where lines are to provide temporary links, connections or services, they may be above ground for up to three consecutive months in any 12-month period.
- (ii) All pipes for network reticulation shall be buried below ground.

NOTE TO PLAN USERS

Performance Standard (d)(ii) does not apply to the establishment, operation, maintenance and minor upgrade of equipment ancillary to gas distribution networks described in R23.6.2(v).

(e) Building Size

The footprint of any building located above ground level shall not exceed 10m² in floor area (measured from the exterior faces of the exterior walls).

NOTE TO PLAN USERS

The NES for Telecommunications establishes the performance standards for permitted activity status for telecommunication cabinets within road.

(f) Antennas

- i. The maximum diameter for Antennas shall not exceed 5m in diameter, in all Zones, with the exception that any antenna dish erected on a roof in the Residential Zone shall not exceed 2.5m in diameter.
- ii. Any panel antenna shall not exceed an area of 1.2m² in all Zones, with the exception that any panel antenna in the Residential Zone shall not exceed 0.8m².

NOTE TO PLAN USERS

This Rule is to be read in conjunction with R23.6.2(a)(ii) and (iii) which refers to the height of antennas.

In relation to R23.6.2(f) the mountings of any antenna and any ancillary components, (including radio frequency equipment or similar devices such as but not limited to amplifiers and controller boxes) shall not be included in the measurement of each antenna provided that the device is smaller in area or diameter than the antenna itself.

Any antenna only need meet the area or diameter measurement, as appropriate to the type of antenna and the measurement can be applied to each individual antenna and is not a cumulative measurement.

(g) Reinstatement

Where the construction or maintenance of a network utility involves disturbance to the ground, at the completion of the work the ground shall be reinstated as close as practicable to the condition existing prior to commencement of the work.

(h) Cultural and Heritage Sites

Construction work associated with the establishment, operation, and maintenance or upgrading of a network utility and associated structures permitted by R23.6.12 shall not disturb any cultural or heritage site identified in Section 17 of the District Plan, nor any archaeological site. This performance condition shall also apply to network utility structures in road reserves.

NOTE TO PLAN USERS

Excavation, construction or reconstruction work associated with the establishment, operation, maintenance or upgrading of a network utility and associated structures permitted by R23.6.2 within the dripline of a scheduled tree will resource consent under R17.8.1 of the Plan.

(i) Radiofrequency Field Exposure

Network utilities shall comply with the following standards:

- i. Network utilities that transmit radiofrequency fields shall comply with the New Zealand Standard NZS 2772: Part 1: 1999 Radio Frequency Fields Part 1 – Maximum Exposure Levels – 3 KHz to 300 GHz;
- ii. Network utilities that emit electric and magnetic fields be based on the International Commission on Non-ionising Radiation Protection (ICNIRP) Guidelines.

NOTE TO PLAN USERS

Any radio and telecommunication activity that does not comply with Permitted Activity Performance Standard (i) shall be considered a non-complying activity, in accordance with the National Environmental Standards on Telecommunication Facilities.

Explanation

The various requirements for Permitted Activities are intended to ensure that any of the potential effects of the activities permitted, are dealt with at the time the activity is established. Further, the conditions also ensure that the network utilities blend with the environment in which they are established and cause no adverse effects on the activities or amenity values of the Zone in which they are established. For reasons of clarity, R 23.6.2(g) refers only to land and does not include vegetation.

Regulation 4 of the NES for Telecommunication Facilities sets out the activity status for telecommunication facilities generating radiofrequency fields. A telecommunication facility that is not a permitted activity under Regulation 4 of the NESTF is a non-complying activity as far as radiofrequency fields are concerned. If consent is required, it would need to be sought from the Council.

(j) Setbacks

In the case of masts not located in any road reserve, road or service lane, these must:

- i. be setback not less than 5 metres from any site boundary common with a Residential Zone or Recreation Zone site; and
- ii. be setback not less than 8 metres from a site boundary fronting a Major Arterial or Minor Arterial Road as listed in 20.6.1.1 and 20.6.1.2 of the Land Transport Section; and
- iii. be setback not less than 3 metres from a boundary fronting any road other than a Major Arterial or Minor Arterial Road as listed in 20.6.1.1 and 20.6.1.2 of the Land Transport Section; and
- iv. the setback conditions specified in clause (a) herein do not apply where the mast is located within any road, road reserve, or service lane.
- v. Gas Transmission Pipelines
- vi. the maintenance and/or minor upgrade of pipes and incidental equipment associated with the high-pressure natural gas transmission network shall comply with AS2885 Pipelines – Gas and liquid petroleum and the New Zealand Health and Safety in Employment (Pipelines) Regulations 1999.

R23.6.3 THE SURFACE MOUNTING OF TELECOMMUNICATION LINES PROVIDED THAT:

- (a) The line is a line as defined in the Telecommunications Act; and
- (b) It is a customer connection attached to an existing structure; and
- (c) It is located on private land; and
- (d) The height of the line above ground is not more than 400mm.

R23.6.4 OPERATION, MAINTENANCE AND MINOR UPGRADING OF EXISTING ELECTRICITY STRUCTURES

The operation, maintenance, repair, minor upgrading of transformers and substations, lines and support structures for conveying electricity (at any voltage) and associated telecommunications lines (excluding the operation, maintenance, upgrading, relocation or removal of existing transmission lines which form part of the National Grid, owned and operated by Transpower, specified in regulation 4 of the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulation 2009, and covered by that NES) are permitted activities provided such facilities were in existence and operational at the date on which this provision becomes operative.

Performance Standards**(a) Noise**

Activities shall comply with the noise standards for the Zone in which they are situated or adjoining Zone if located on any road, road reserve or service lane.

(b) Reinstatement

Where the construction or maintenance of a network utility involves disturbance to the ground, at the completion of the work the ground shall be reinstated to the condition existing prior to commencement of the work.

Explanation

The operation, maintenance and minor upgrading of existing electricity structures and associated telecommunications lines is likely to have no, or no more than minor, adverse effects on the environment. The performance standards seek to ensure that the activities blend with the environment in which they are established and cause no adverse effects on the activities or amenity values of the Zone in which they are established.

A definition of "minor upgrading" specific to this rule is in the Definitions section of the Plan. This definition allows for (among other things) the increase in the carrying capacity of an electric line, but only where this will not result in an increase in the voltage of the line (unless the line has been constructed to operate at a certain voltage but has been operating at a reduced voltage).

R23.6.5 ACTIVITIES WITHIN THE NATIONAL GRID YARD

Within the National Grid Yard, the following activities are Permitted Activities:

- (a) The operation, maintenance, upgrading of network utilities that are also permitted activities under R23.6.2 and R23.6.4, or are permitted by the NES for Electricity Transmission or the NES for Telecommunication Facilities;
- (b) On all sites within any part of the National Grid Yard:
 - i. Network utilities within a transport corridor, part of a transmission network or electricity infrastructure that connects to the National Grid.; or
 - ii. Any uninhabited agricultural or horticultural building or structure that is not specified as a non-complying activity in R23.10.2;
 - iii. Fences less than 2.5m in height that comply with NZECP34:2001;
 - iv. Horticultural structure between 8m and 12m from a pole support structure that:
 - (i) Meets the requirements of the NZECP34:2001 for separation distances from the conductor;
 - (ii) Is no more than 2.5m high;
 - (iii) Is removable or temporary, to allow a clear working space 12 metres from the pole when necessary for maintenance and emergency repair purposes; and
 - (iv) Allow all weather access to the pole and a sufficient area for maintenance equipment, including a crane.
 - v. A horticultural structure where Transpower has given written approval in accordance with clause 2.4.1 of NZECP34:2001 to be located within 12m of a tower or 8m of a pole support structure.
 - vi. Any buildings and structures for a sensitive activity, not involve an increase in the building height or footprint where alteration and additions to the existing buildings occur.
- (c) All buildings or structures permitted by B) must comply with at least one of the following conditions:
 - i. A minimum vertical clearance of 10m below the lowest point of the conductor associated with National Grid Lines; or
 - ii. Demonstrate that safe electrical clearance distances required by NZECP34:2001 are maintained under all National Grid line operating conditions.

NOTE TO PLAN USERS

- In addition to the above, all activities (whether listed or not) located under or adjacent to transmission lines must comply with the New Zealand Electrical Code for Electrical Safe Distances (NZECP34:2001) and the Electricity (Hazards from Trees) Regulations 2003. Compliance with the District Plan does not ensure compliance with the Code.
- In order to establish safe clearance distances, consultation with Transpower NZ may be necessary.
- Rules relating to earthworks activities within the National Grid Yard are set out in Section 6 – General (Earthworks) of the District Plan.

Explanation

The purpose of the National Grid Yard is to manage sensitive activities and any activities that could impact on the operation, maintenance and development of the National Grid infrastructure and assets. The permitted activities set out above seek to enable a range of activities within the National Grid Yard to be undertaken provided certain standards are met which reduce the risk of adverse environmental effects on the National Grid and on activities sensitive to the National Grid.

23.7 Rules: Controlled Activities

R23.7.1 CONTROLLED ACTIVITIES

The construction, alteration and addition to the following structures:

- (a) Above ground pipes for the distribution (but not transmission) of natural gas or manufactured gas, at a gauge pressure not exceeding 2000 kilopascals.
- (b) Above ground pipes for network reticulation of water, sewage and stormwater.
- (c) Water supply wells and pumping stations including ancillary equipment and reservoirs smaller than 1000m³ and not exceeding 5m in height.
- (d) Above ground sewerage and stormwater pumping stations not exceeding 50m² gross floor area.

are Controlled Activities throughout the City with respect to:

- Height and design;
- Siting, including consideration of co-siting of network utility structures;
- Amenity and Visual Effects;
- Screening and landscape treatment; and
- Cultural, historical or archaeological effects.

23.8 Rules: Restricted Discretionary Activities

R23.8.1 CONSTRUCTION, ALTERATION OR ADDITION TO A NETWORK UTILITY, BUILDING OR STRUCTURE HOUSING A NETWORK UTILITY WHICH DOES NOT COMPLY WITH PERMITTED ACTIVITY PERFORMANCE STANDARDS

The construction, alterations or additions to a network utility or building or structure housing a network utility which do not meet the Performance Standards for Permitted Activities in respect of:

- (a) Height;
- (b) Building Size;
- (c) Diameter Standards for Antennas;
- (d) Undergrounding of Lines;
- (e) Reinstatement
- (f) Cultural and Heritage Sites; and
- (g) Setbacks

are Restricted Discretionary Activities with regard to:

- Height and design;
- Amenity and Visual Effects;
- Landscaping ;
- Siting;
- Cultural, historical and archaeological effects;
- Compliance with all accepted best engineering and design practice or codes in design, location, construction and operation activity.

R23.8.2 CONSTRUCTION AND ALTERATION OF BUILDINGS AND STRUCTURES WITHIN 100M OF THE TURITEA (LINTON) NATIONAL GRID SUBSTATION AND 25M OF THE BUNNYTHORPE NATIONAL GRID SUBSTATION IS A RESTRICTED DISCRETIONARY ACTIVITY WITH REGARD TO:

- (a) The extent to which the development may adversely affect the efficient operation, maintenance, upgrading and development of the substation;
- (b) The extent to which the proposed design and layout of the development enables appropriate separation distances between future sensitive activities, development and the substation;
- (c) Any other measures proposed to avoid or mitigate potential adverse effects, including reverse sensitivity effects, on the substation; and
- (d) The risk of electrical hazards affecting public or individual safety and the risk of property damage.

Except that R23.8.2 does not apply with respect to:

- i. Buildings and structures constructed or altered in association with the operation, maintenance or upgrade of network utilities that are also permitted under R23.6.2, R23.6.4 or are permitted by the NES for Electricity Transmission or the NES for Telecommunication Facilities;
- ii. Buildings and structures constructed or altered in association with the establishment of network utilities within a transport corridor, part of a transmission network or electricity infrastructure that connects to the National Grid.

Note: No part of exemptions (a) or (b) above exempts activities from being considered under R23.9.1 below.

NOTE TO PLAN USERS

- The Turitea National Grid Substation is referred to as the Linton National Grid Substation by Transpower.
- The extent of setbacks from the respective National Grid Substations are shown in Map 23.1 and Map 23.2.

Explanation

R23.8.2 seeks to promote development in a manner that enables the Transpower to continue to operate, maintain and upgrade critical infrastructure.

23.9 Rules: Discretionary Activities

R23.9.1 DISCRETIONARY ACTIVITIES

Excluding the operation, maintenance, upgrading, relocation or removal of existing transmission lines specified in regulation 4 of the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009, and covered by that NES; the construction, operation, alteration or addition to the following structures are Discretionary Activities throughout the City:

- a. Transformers and lines for conveying electricity at a voltage exceeding 110 kV.
- b. Pipes for the transmission of natural or manufactured gas and necessary incidental equipment, including compressor stations.
 Note: inclusive of incidental equipment, this rule provides for the construction of a new gas transmission pipeline or compressor station or major upgrade (alteration or addition) to an existing pipeline or above ground station. These activities are not provided for as a permitted activity under R23.6.2.
- c. Electricity substations.
- d. Depots for the maintenance, upgrading, alteration, or security of lines or pylons associated with the National Grid.
- e. The construction, alteration, and addition to any network utility structure listed in Permitted Activities

which does not comply with the performance standards for noise and floodlighting.

- f. Telecommunications lines, links, works, and facilities not being Permitted or Controlled Activities, or Discretionary Activities.
- g. Any other utility structure or activity not listed as a Permitted, Controlled or Discretionary Activity.

23.10 Rules: Non-Complying Activities

R23.10.1 NON-COMPLYING ACTIVITIES

Any activity emitting radiofrequency fields, in any zone, which does not comply with New Zealand Standard NZS 2772: Part 1: 1999 *Radio Frequency Fields Part 1 – Maximum Exposure Levels – 3 KHz to 300 GHz*, shall be a non-complying activity.

In addition to the objective and policies of this Section (Section 23), when considering whether to grant the application, and what conditions, if any, to impose, the Council shall take into account the objectives and policies of the Zone in which the activity is to be located.

R23.10.2 ACTIVITIES WITHIN THE NATIONAL GRID YARD

The following are non-complying activities within the National Grid Yard:

- (i) Any building or structure, or addition to a building or structure for a sensitive activity (unless as permitted by R23.6.2(f));
- (ii) Any change of use to a sensitive activity or the establishment of a new sensitive activity;
- (iii) Any building or structure that does not comply permitted activity R23.6.2.

R23.10.3 RUNWAY END PROTECTION AREAS

The activities listed in R13.4.4.3 are Non-Complying Activities in the Runway End Protection Areas, except that R23.10.3 does not apply to:

- (a) The operation, maintenance, minor upgrade and removal of lineal network utilities; and
- (b) The establishment of new underground lineal network utilities, associated service connections and incidental equipment.

NOTE TO PLAN USERS

For the purposes of clause (b) above, associated service connections and incidental equipment may be established above ground or below ground.

Explanation

Runway End Protection Areas (REPAs) are provided at the end of each runway strip. These areas are required to be free of obstructions or activities which could interfere with aeronautical navigational aids. They are also in areas which statistically there are greater chances of aircraft related accidents. It is therefore desirable that the public's exposure to such risks be reduced by limiting the range of activities permitted in the REPAs.

23.11 Rules: Prohibited Activities

R23.11.1 PROHIBITED ACTIVITIES

The following activities are prohibited activities:

- (i) Any utility structure within the take-off climb surfaces or the approach surfaces for the main sealed runway (known as 07/25), transitional side surfaces or the horizontal and conical surfaces above the airport (refer to Figure 13.1).
- (ii) For the purposes of interpreting (i) above, the specifications set out in R13.4.7.1(ii)(a) to (d) apply.

NOTE TO PLAN USERS

- R23.11.1 does not apply to navigational aids and beacons established, operated, maintained or upgraded by or on behalf of Airways Corporation of New Zealand.

Explanation

The Airways Corporation of New Zealand is the State-owned Enterprise (SOE) responsible for the installation of air navigation and communications systems which provide guidance to aircraft flying through New Zealand airspace. These systems include navigational aids and beacons.



Map 23.1 Bunnythorpe National Grid Substation Setback



Map 23.2 Turitea Linton National Grid Substation Setback