

## Network Utilities

*NOTE: The following provisions apply district wide in addition to any other provisions in this Plan applicable to the same areas or site.*

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### NTW.1.1 Description and Expectations

*NOTE: Whangarei District Council is undertaking a rolling review of the District Plan. It is intended that all network utility provisions will be reviewed during the rolling review. As part of the rolling review programme this chapter will be populated. Due to Council's requirement to implement the National Policy Statement on Electricity Transmission 2008 and Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009, provisions relating to Electricity Network Utilities have been completed.*

*Chapter 23 Network Utility Operations of the Operative District Plan remains applicable to all Network Utility Activities. The description and expectations, objectives and policies of NTW.1, NTW.2 and NTW.3 do not supersede those objectives and policies specified in Chapter 23, but provide more specific guidance when considering Electricity Network Utilities.*

*Council is required to implement Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016 (NESTF 2016), therefore provision relating to Telecommunication Network Utilities are included. Chapter 23 Network Utility Operations of the Operative District Plan remain applicable to all Telecommunication Facilities.*

#### ELECTRICITY:

Electricity is provided by Network Utility Operators through Electricity Infrastructure which forms an important aspect of the District's physical resources. Electricity is an essential form of energy and provision throughout the District is therefore required to provide for communities social and economic wellbeing. Electricity Infrastructure is the transmission and distribution systems for electricity comprising of lines, cables, substations and switchyards and other paraphernalia provided by a network utility operator, but excluding generation facilities.

Electricity Infrastructure within the District consists of the National Grid and the local Electricity Distribution Network. Electricity Infrastructure traverses Whangarei District providing electricity to neighbouring Districts, and is an important resource for the Northland Region.

The development, operation and maintenance of Electricity Infrastructure has the potential to create adverse effects on existing land uses, visual amenity, natural character and on public health and safety. Incompatible development and Sensitive Activities can give rise to reverse sensitivity effects,

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risks to health and safety, and compromise the on-going development, maintenance and operation of the infrastructure.

### TELECOMMUNICATION:

Telecommunication is provided by Network Utility Operators through telecommunication infrastructure which forms an important aspect of the District's physical resources. The Resource Management (National Environmental Standards for Telecommunications Facilities) Regulations 2016 (NESTF 2016) regulates the following activities:

- Cabinets
- Antennas on poles
- Antennas on buildings
- Small cell units
- Telecommunication lines
- Underground telecommunication lines.

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### NTW.1.2 Electricity Objectives

1. Providing for the sustainable, secure, safe and efficient use and development of Electricity Infrastructure within the Whangarei District, while seeking to avoid, remedy or mitigate adverse effects on the environment.
2. Recognising the importance of the National Grid to the National, Regional and District's social and economic wellbeing.

### NTW.1.3 Electricity Policies

1. To consider the actual or potential adverse effects of proposed Electricity Infrastructure with respect to location, design and operation while taking into account the functional, technical and operational needs of the Electricity Infrastructure.
2. To ensure safe, secure and efficient use and development of Electricity Infrastructure by avoiding or mitigating reverse sensitivity effects generated by inappropriate land use, subdivision, and development activities occurring within close proximity to infrastructure.
3. To use planning tools to facilitate long-term planning flexibility in the development, operation and maintenance of Electricity Infrastructure.
4. To enable the operation, maintenance and redevelopment of the existing National Grid in accordance with the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009.
5. To ensure safe and efficient use and development of the National Grid and adjacent land by:
  - i. Avoiding Sensitive Activities within the National Grid Corridor;
  - ii. Ensuring that land use, subdivision and development do not compromise the operation, maintenance, upgrading and development of the National Grid;
  - iii. Managing subdivision to facilitate good amenity and urban design outcomes near the National Grid; and
  - iv. Not foreclosing operation or maintenance options or, to the extent practicable, the carrying out of routine and planned upgrade works.
6. To raise awareness of transmission lines, by identifying the location of the National Grid on planning maps.
7. To encourage extensions and upgrading to the Electricity Infrastructure, that are not provided for in the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 and are not minor upgrading, to be undertaken through designations.
8. To ensure safe and efficient use and development of Electricity Infrastructure, by recognizing and providing for existing and future transmission corridors, including when identifying new areas of urban development.
9. To ensure safe and efficient use and development of Electricity Infrastructure in accordance with Electricity Act 1992, Electricity (Hazards from Trees) Regulations 2003, Electricity (Safety) Regulations 2010 and New Zealand Electrical Code of Practice for Electrical Safe Distances 34:2001.

*NOTE: The construction, alteration or location of any buildings or structures, land disturbance or planting of vegetation near Electricity Infrastructure, should be located, selected and/or managed to ensure that it*

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*will not result in the breaching of the New Zealand Electrical Code of Practice for Electrical Safe Distances 34:2001 and the Electricity (Hazards from Trees) Regulations 2003. To discuss works near any electricity line contact the network utility operator.*

## Land Use

### NTW.2.1 National Grid

Notwithstanding any other rules in the District Plan, the aspects of the National Grid covered by the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 must comply with those regulations, and Rules NTW.2.2 and NTW.2.3 shall not apply.

*NOTE: These Regulations apply to the lines owned or operated by Transpower New Zealand Limited only.*

### NTW.2.2 Electricity Infrastructure Permitted Activities

1. The operation, maintenance, replacement and upgrading of the Electricity Infrastructure which meets the following standards:
  - a. There is no increase in the height of the support structure (excluding earthwires, earthpeaks and lightning rods) beyond the relevant permitted height specified in NTW.2.2(2)(c); and
  - b. The relocation of support structures are within 5m of the existing pole location;
  - c. An increase in line voltage does not change the relevant building to conductor separation requirements specified in NZECP34:2001, except where the line was originally constructed to operate at the higher voltage but has been operating at a reduced voltage, or where the normal operating voltage will not exceed 33kV; and
  - d. Compliance with the requirements of NZECP 34:2001; and
  - e. Compliance with the electric and magnetic field limits contained in the International Commission for Non-Ionising Radiation Protection (ICNIRP) Guidelines (2010) and World Health Organisation Environmental Health Criteria Monograph (No. 238, June 2007); and
  - f. The ground is reinstated upon completion of works; and
  - g. Installation or modification of a sign at a height no greater than 2.0m above ground level and no larger than 1.0m<sup>2</sup> associated with an electricity network utility.
2. Construction of new Electricity Infrastructure which meets the following standards:
  - a. Compliance with the requirements of NZECP 34:2001;
  - b. Compliance with the electric and magnetic field limits contained in the International Commission for Non-Ionising Radiation Protection (ICNIRP) Guidelines (2010) and World Health Organisation Environmental Health Criteria Monograph (No. 238, June 2007); and
  - c. The construction or establishment of any tower, pole, mast, aerial, panel, element or dish operationally associated with electricity lines that have a maximum height of:
    - i. 15m in any Living or Business Environment;
    - ii. 15m in the Marsden Point Port Environment;
    - iii. 12.5m in the Coastal Countryside or Open Space Environments;
    - iv. 18.5m in the Countryside Environment.
  - d. Installation or modification of a sign at a height no greater than 2.0m above ground level and no larger than 1.0m<sup>2</sup> associated with an electricity network utility.
3. The construction of indoor junction boxes, substations and other equipment cabinets.

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4. The construction of outdoor junction boxes, substations and other equipment cabinets, that have a height no greater than 1.5m and a ground coverage not exceeding 3.0m<sup>2</sup>, provided that it meets the following:
  - i. Have a low reflectivity finish, recessive in colour, with a maximum reflectivity of no more than 40%, except where it is required for safety purposes.
5. The construction of, or extension to, underground Electricity Infrastructure.

### **NTW.2.3 Electricity Infrastructure Discretionary Activities**

1. Any activity relating to the construction, maintenance and upgrading of Electricity Infrastructure that fails to meet permitted activity rule NTW 2.2 is a discretionary activity. Council may have regard to the following matters when considering an application for resource consent and appropriate conditions:
  - i. The extent to which the proposed activity will have detrimental impacts or beneficial effects on the health and safety of the community.
  - ii. Any reduction of amenity values in the surrounding and nearby environments.
  - iii. Any negative impact on any natural ecosystem, Outstanding or Notable Landscape or Feature, Site of Significance to Maori, Heritage Tree and or Heritage Area, Site or Object.
  - iv. The reasonable ability to locate the Electricity Infrastructure below ground.
  - v. Any cumulative effects that may occur as a result of the activity.
  - vi. Whether or not the activity will result in adverse visual effects.
  - vii. Whether or not the measures proposed are sufficient to avoid, remedy or mitigate the environmental effects of the activity.
  - viii. The extent to which the proposed activity will affect the operation, maintenance and safety of the State Highway Network.
  - ix. The efficient use and development of land.
  - x. The operational or technical constraints of the Electricity Infrastructure.

### **NTW.2.4 National Grid Corridor Permitted Activities**

1. Within the National Grid Corridor the following activities are permitted:
  - i. Network utilities;
  - ii. Any agricultural or horticultural activity, building or structure (including additions or alterations) that is not associated with a Sensitive Activity and is not specified as a non-complying activity in NTW 2.5, provided that:
    - a. It is setback at least 12m from the outer visible edge of a transmission tower support structure (except where Transpower has given written approval in accordance with clause 2.4.1 of NZECP34:2001 to a lesser setback); and
    - b. It complies with the safe distance requirements between conductors and buildings (and other structures) required by section 3 of NZECP34:2001.
  - iii. Any building less than 10m<sup>2</sup> Gross Floor Area and less than 2.5m in height associated with a Sensitive Activity, provided that it is setback at least 12m from the outer visible edge of a transmission tower support structure;

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- iv. Fences less than 2.5m in height and setback at least 5m from the outer edge of a transmission support structure;
- v. Earthworks undertaken as part of normal agricultural cultivation, or repair, sealing or resealing of a road (including a farm track), footpath or driveway;
- vi. Earthworks and Mineral Extraction which is not deeper than 300mm within 6m, and not deeper than 3m between 6 to 12m, of the outer visible edge of a transmission tower support structure;
- vii. Earthworks and Mineral Extraction which does not create an unstable batter that will affect a transmission support structure; and
- viii. Earthworks that do not result in a reduction in the ground to conductor clearance distances required by NZECP34:2001.

*NOTE 1: Transpower NZ Ltd has specified that any building or structure no closer than 10m in a vertical direction from any conductor (wire) will comply with the conductor clearance distances required by NZECP34:2001.*

*NOTE 2: Artificial crop protection structures and crop support structures fall within NTW 2.4.1(ii). Clause 2.4.1 of NZECP34:2001 provides for these structures to be located within 12m if a Transmission Tower support structure subject to certain requirements. For the purposes of this note, Artificial crop protection structure means a structure where cloth is used to protect crops or enhance crop growth (but does not include greenhouses), and Crop support structure means an open structure on which crops are grown.*

*NOTE 3: In order to establish safe clearance distances, consultation with Transpower NZ may be necessary.*

### **NTW.2.5 National Grid Corridor Discretionary Activity**

1. Within the National Grid Corridor, any building or structure (including additions and alterations) within the Business 3 and Living 1 Environments which is located at least 12m from the outer edge of a transmission structure associated with the National Grid is a discretionary activity.

### **NTW.2.6 National Grid Corridor Non-complying Activities**

1. Within the National Grid Corridor the following activities are non-complying:
  - i. Any activity that fails to meet Permitted Activity rule NTW.2.4 or Discretionary Activity rule NTW.2.5;
  - ii. Sensitive Activities;
  - iii. Any building or structure (including additions or alterations) associated with a Sensitive Activity (except as permitted by rule NTW.2.4.1(iii));
  - iv. The following buildings or structures (including additions or alterations) within the corridor:
    - a. Any building or structure associated with a Commercial or Industrial Activity;
    - b. Any greenhouse 10m<sup>2</sup> Gross Floor Area or larger;
    - c. Milking shed buildings (excluding the surrounding platform and any stockyards);
    - d. Buildings housing intensively farmed livestock.

*NOTE: For the purpose of the notification provisions of the Resource Management Act 1991, Transpower NZ Limited shall be an affected person.*

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*NOTE: In addition to the above, all activities (whether listed or not) located under or adjacent to the National Grid must comply with the New Zealand Code of Practice for Electrical Safe Distances (NZECP34:2001). Compliance with the District Plan does not ensure compliance with the Code.*

### NTW.2.7 Critical Electricity Line (Category 1) Permitted Activities

1. Within 10m of the centreline of a Critical Electricity Line (Category 1) the following activities are permitted activities:
  - a. Any building or structure that does not require building consent; or
  - b. Alteration of any building that does not exceed outside the envelope or footprint of the existing building; or
  - c. Earthworks that:
    - i. Do not result in a reduction of existing ground clearance distances from overhead lines below the minimums prescribed in the New Zealand Code of Practice 34:2001 (NZECP 34:2001); and
    - ii. Are in accordance with NZECP 34:2001.
  - d. Activities described in NTW 2.7.1a, b and c that do not meet the requirements for permitted activities under those rules, provided that:

Either:

- a. Prior to the commencement of any works:
  - i. Written notification is provided to the Council; and
  - ii. The proposed works comply with the Electricity Act 1992 and associated regulations (NZECP 34:2001, the Electricity Act 1992 and associated regulations (NZECP 34:2001, the Electricity (Hazards from Trees) Regulations 2003 (SR 2003/375), and the Electricity (Safety) Regulations 2010) in all respects;

Or

- b. The activity is carried out by a Network Utility Operator or territorial authority in accordance with NZECP 34:2001.
- e. **Planting of trees including shelterbelts, production forestry or commercial horticultural operations, provided that the proposed works comply with the Electricity Act 1992 and associated regulations (NZECP 34:2001, the Electricity (Hazards from Trees) Regulations 2003 (SR 2003/375), and the Electricity (Safety) Regulations 2010) in all respects.**

*NOTE: In addition to the above, all activities (whether listed or not) located under or adjacent to a Critical Electricity Line (Category 1) must comply with the New Zealand Code of Practice for Electrical Safe Distances (NZECP34:2001). Compliance with the District Plan does not ensure compliance with the Code. Specifically, a building (or similar) setback of less than 12m from the outer visible edge of a tower support structure requires written approval of Northpower in accordance with clause 2.4.1 of NZECP34:2001.*

### NTW.2.8 Critical Electricity Line (Category 1) Restricted Discretionary Activities

1. Any activity that does not meet the permitted activity rule NTW 2.7 is a restricted discretionary activity.



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Discretion is restricted to:

- i. The safe and efficient operation and maintenance of the electricity supply network, including:
  - a. The use, design and location of buildings; and
  - b. The mature size, growth rate, location, and fall zone of any associated tree planting, including landscape planting and shelterbelts; and
  - c. Compliance with NZECP 34:2001; and
  - d. Effects on public health and safety; and
  - e. Effects on access to CEL's, designated substations and associated infrastructure for maintenance purposes.

*NOTE: For the purpose of the notification provisions of the Resource Management Act 1991, the relevant Network Utility Operator shall be an affected person*

### NTW.2.9 Telecommunication Facilities

1. No rule in any chapter of this Plan that duplicates or conflicts with the NESTF 2016 shall apply. The NESTF 2016 applies in addition to all other rules in any chapter of this Plan.

#### Implementation Notes:

1. NESTF 2016 regulations 10-18 specify the activity status for proposed telecommunication activities by linking back to the relevant District Plan. Each activity must be assessed against the appropriate District Plan definition and rule.
2. NESTF 2016 regulations 44-52 specify that proposed telecommunication activities must comply with the following relevant District Plan Resource Area Provisions:
  - a. Outstanding and Notable Landscape Areas and Outstanding Natural Features (Chapter 57).
  - b. Heritage Trees (Chapter 59).
  - c. Sites of Significance to Maori (Chapter 60).
  - d. Historic Heritage (Chapter HH).

## Subdivision

### NTW.3.1 National Grid Corridor Discretionary Activities

1. Subdivision of land which is within 32m of the centreline of the National Grid is a restricted discretionary activity, provided that every allotment is capable of containing within its net site area a building platform located entirely outside of the National Grid Corridor.

Discretion is restricted to:

- i. Whether the design and construction of the subdivision allows for earthworks, buildings and structures to comply with the safe distance requirements of the New Zealand Electrical Code of Practice for Safe Distances (NZECP 34:2001);
- ii. Provision for the ongoing operation, maintenance and planned upgrade of the National Grid.

### NTW.3.2 National Grid Corridor Non-Complying Activities

1. Subdivision of land which does not comply with rule NTW.3.1 is a non-complying activity.

*NOTE: For the purpose of the notification provisions of the Resource Management Act 1991, Transpower New Zealand Limited shall be an affected person.*

*NOTE: Vegetation to be planted within the National Grid Corridor as shown on the planning maps, should be selected and/or managed to ensure that it will not result in that vegetation breaching the Electricity (Hazards from Trees) Regulations 2003 or prevent access to support structures. To discuss works, including tree planting near any electricity line especially works within the transmission corridor, contact the relevant network utility operator.*

### NTW.3.3 Critical Electricity Line (Category 1) Restricted Discretionary Activities

1. Subdivision of land which is within 20m of the centreline of the Critical Electricity Line (Category 1) is a restricted discretionary activity.

Discretion is restricted to:

- i. The safe and efficient operation and maintenance of the electricity supply network, including:
  - a. The use, design and location of buildings; and
  - b. The mature size, growth rate, location, and fall zone of any associated tree planting, including landscape planting and shelterbelts; and
  - c. Compliance with NZECP 34:2001; and
  - d. Effects on public health and safety; and
  - e. Effects on access to CELs (Category 1), designated substations and associated infrastructure for maintenance purposes.

*NOTE: For the purpose of the notification provisions of the Resource Management Act 1991, the relevant Network Utility Operator shall be an affected person.*

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## Subdivision

### Revision and Sign-off Sheet

Date Approved	Editor	Paragraph	Change Reference	Decision Date	Approved By
11 December 2013	FP	New Chapter	Plan Change 123A – addition of new chapter to the District Plan.	Operative Date 13 January 2014 TRIM 14/39980	MM
10 May 2016	TB	Whole Chapter	Re-formatting of Chapter to ensure consistency.	Clause 20A Memo TRIM 16/55469	MM
16 March 2017	LM	NTW.1.1 NTW.2.9	Implementation of NESTF 2016.	22 March 2017 (PC137)	MM

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