NU - Network Utilities

The provisions in this chapter override the respective Zone provisions in Part 3 Area-Specific Matters, unless otherwise specified in this chapter.

Introduction

The Tararua District relies on network utilities, including energy transmission and distribution, radio-communications, telecommunications, meteorological facilities, and water and wastewater reticulation. A network utility operator, as defined by the Act, or other operators may provide these utilities.

The purpose of the Network Utilities chapter is to manage the construction, operation and maintenance of all network utilities. Network utilities are physical resources that provide infrastructure service networks such as water supply, sewerage, trade waste and stormwater drainage networks, roads and rail networks, cycleway and walkway networks, telecommunication networks, radiocommunication facilities, electricity and gas transmission and distribution networks, and associated buildings, structures, equipment and customer connections.

Network utilities provide essential services and are critical to the efficient and ongoing functioning of the District. They enable communities to undertake everyday activities and functions and allow people to provide for their social, cultural and economic wellbeing and their health and safety.

Some network utilities have the potential to have adverse effects on the environment. These effects may result from activities involved in establishing the facility, be generated by the facility itself, or be associated with the maintenance and operation of the facility. Potential adverse effects can include:

- the visual impacts of structures;
- risks to public health and safety; and
- noise and odour.

Similarly, land uses adjacent to network utilities can have an adverse effect on the ongoing function and operation of network utilities. In general, the effects of network utilities can be managed through development and performance standards, whether through Codes of Practice or regulatory controls.

In addition to the provisions in this chapter, a number of other Part 2: District-Wide Matters chapters also contain provisions that may be relevant to network utilities (e.g. NH — Natural Hazards, TRANS — Transport, HH — Historic Heritage, ECO — Ecosystems & Indigenous Biodiversity, SUB — Subdivision, LIGHT - Light, and NOISE - Noise). Provisions to manage the effects of other activities on network utilities (including state highway and rail corridors, the National Grid, and gas transmission pipelines) are contained elsewhere in the District Plan, in the respective zones in Part 3 of the District Plan, and the NOISE — Noise chapter of the District Plan.

Additional regulatory requirements, separate to the District Plan, are also relevant to network utilities, including:

- The requirements of the Resource Management (National Environmental Standards for Electricity Transmission Activities) Regulations 2009 (NESETA) which apply directly to the operation, maintenance, upgrading, relocation or removal of transmission line(s) that were operating or able to be operated on or prior to 14 January 2010 and remain part of the National Grid. In the case of conflict or perceived conflict with any provision of this plan, the NESETA provisions prevail.
- The Resource Management (National Environmental Standards for Telecommunication Facilities) Regulations 2016 (NESTF) which apply to Telecommunications infrastructure, such as cabinets, antennas, poles, small-cell units and telecommunications lines. In the case of conflict or perceived conflict with any provision of this plan, the NESTF provisions must prevail.
- The requirements of the National Code of Practice for Utility Operators' Access to Transport Corridors will apply to the placement, maintenance, upgrading and removal of network utility structures in the road.

- Compliance with the NZECP 34:2001 New Zealand Electrical Code of Practice for Electrical Safe Distances (NZECP 34:2001) is mandatory under the Electricity Act 1992. All activities regulated by the NZECP 34:2001, including any activities that are otherwise permitted by the plan, must comply with this regulation.
- Compliance with the Electricity (Hazards from Trees) Regulations 2003 is mandatory. All activities regulated by these regulations, including any activities that are otherwise permitted by the plan, must comply with this regulation.

Connections to a network utility require approval of the relevant network utility operator, and works within roads require approval of the relevant road controlling authority.

In the case of conflict with any other provision of this Plan, including any rule in this Chapter, the provisions of the NESETA and NESTF must prevail.

Objectives

NU-01

Recognise and provide for safe, effective, efficient and resilient network utilities throughout the District that:

- 1. Provide essential and secure services, including in emergencies; and
- 2. Facilitate local, regional, national, or international connectivity; and
- 3. Contribute to the economy; and
- 4. Integrate with development, infrastructure and other activities; and
- 5. Enable people and communities to provide for their health, safety and wellbeing.

NU-O2

The adverse effects of network utilities on the environment are avoided, remedied or mitigated, while recognising the functional and operational needs of network utilities (including those associated with their scale, design and locational requirements) and the positive effects of network utilities.

NU-O3

The safety, maintenance, upgrade or development of network utilities is not compromised by incompatible subdivision, land use or development, including the potential for reverse sensitivity effects.

Policies

NU-P1

Recognise the national, regional and local importance and benefits of network utilities, including as lifeline utilities during an emergency, by:

- 1. enabling the operation, maintenance, repair, minor upgrade or removal of network utilities throughout the District;
- 2. providing for upgrades to, and the development of new, network utilities;
- 3. providing flexibility for network utilities to adopt new technologies that improve access to and efficient use of networks and services, allow for re-use of redundant services or structures, increase resilience, safety or reliability, or result in environmental benefits and enhancements; and
- 4. recognising the functional and operational needs of network utilities.

NU-P2

Avoid adverse effects of upgrades to, and the development of new, network utilities on the values and attributes identified in the District Plan of:

1. Historical Heritage Items (in HH-SCHED) and Notable Trees (in TREE-SCHED);

- 2. Wāhi Tapu, Wāhi Taonga and Sites and Areas of Significance to Māori (in SASM-SCHED);
- 3. Outstanding Natural Features and Landscapes (in NFL-SCHED);

while recognising the extent to which adverse effects can be avoided, may be constrained by a network utility's functional or operational needs.

- **NU-P3** Manage the effects of network utilities on the environment by:
 - 1. avoiding, remedying or mitigating adverse effects on:
 - a. natural and physical resources;
 - b. amenity values, including from shading, visual dominance, noise, vibration, light spill, traffic and access, dust nuisance;
 - c. the safe and efficient operation of other network utilities, including effects on electricity distribution and transmission networks and the National Grid, gas transmission pipelines, road and rail networks, and infrastructural service networks;
 - d. the health, well-being and safety of people and communities, including from exposure to radio-frequency fields and electric and magnetic fields, and by posing a significant risk or exacerbating an existing risk of natural hazards;
 - 2. requiring compliance with recognised standards and guidelines for the potential adverse effects of noise, vibration, radiofrequency fields and electric and magnetic fields;
 - encouraging the progressive undergrounding of appropriate network utilities in new areas of development within the General Residential, Rural Lifestyle, Rural and Settlement Zones and the systematic replacement of existing overhead services with underground reticulation or the upgrading of existing overhead services within these areas, where this is technically and commercially viable;
 - encouraging the co-siting and sharing of masts, facilities, utility corridors and other innovative solutions within residential environments and roads, where technically feasible and practicable;
 - 5. encouraging the removal of redundant network utilities.
- NU-P4 To manage the adverse effects of subdivision, use and development to ensure that the safe, effective, secure and efficient operation, maintenance, upgrading and development of network utilities is not constrained or compromised, including by:
 - 1. managing new activities through setbacks and design controls, where necessary, to achieve appropriate protection of a network utility;
 - managing new activities that are sensitive to noise adjoining the railway corridor, the national and regional road network, and within any defined noise contour to avoid reverse sensitivity effects;
 - 3. managing access to the railway corridor and to the national and regional road network;
 - 4. managing light spill and glare from activities on road users;
 - 5. managing land disturbance and activities in the vicinity of gas transmission pipelines;
 - 6. managing land disturbance, earthworks and vertical holes, land use development and buildings to maintain safe electrical clearance distances under electricity distributions lines and support structures; and
 - ensuring subdivision of sites containing a network utility retain the ability for the network utility operator to access, operate, maintain, repair and upgrade the network utility.
- NU-P5 To encourage the coordination of network utilities planning and delivery with land use, subdivision, development, and urban growth so that future land use and network utilities are integrated, safe, efficient, and aligned.
- **NU-P6** Manage subdivision, use, and development near the National Grid to:

- 1. avoid the establishment or expansion of sensitive activities;
- 2. ensure that the safe and efficient operation, maintenance, repair, upgrading, removal, and development of the National Grid is not compromised; and
- 3. ensure that reverse sensitivity effects on the National Grid are avoided.

Rule Overview Table

The rules that apply to Network Utilities are contained in the tables listed below. To undertake any activity, it must comply with all the rules listed in:

- NU-R1 to NU-R10 Activities Rules; and
- NU-S1 to NU-S8 Standards; and
- Any relevant provision in Part 2 District-Wide Matters; and
- Any relevant provision in Part 3 Area Specific Matters.

Where an activity breaches more than one rule, the most restrictive status shall apply to the activity. Refer to Part 1 - How the Plan Works for an explanation of how to use this plan, including activity status abbreviations.

It is important to note that in addition to the provisions in this chapter, zone chapters and a number of other Part 2: District-Wide Matters chapters also contain provisions that may also be relevant.

Rules

Notes:

The following rules do not cover all network utility activities. Network utilities may be exempt from rules because they operate under designations or national environmental standards (e.g. the National Environmental Standards for Electricity Transmission Activities (2009) or the National Environmental Standards for Telecommunication Facilities (2008)). Reference should be made to the Ministry for the Environment website for the latest version of any relevant National Environmental Standards.

Rules relating to subdivision and land development involving network utilities and other activities addressed in this chapter are contained in the SUB — Subdivision chapter of the District Plan.

Rules relating to earthworks associated with activities addressed in this chapter are contained in the EW — Earthworks chapter of the District Plan.

Rules for activities addressed in this chapter that are located within the identified ONLs and ONFs are contained in this chapter.

The construction, operation, maintenance, replacement, removal and upgrading of cycleways or walkways located within road reserve are subject to the rules of this chapter.

Cycleways and walkways located outside road reserve fall within the definition of 'Community Facilities' and are subject to the relevant zone chapter rules.

It is important to note that in addition to the provisions in this chapter, a number of other Part 2: District-Wide Matters chapters also contain provisions that may be relevant to network utilities (e.g. NH — Natural Hazards, TRANS — Transport, HH — Historic Heritage, ECO — Ecosystems & Indigenous Biodiversity, SUB — Subdivision, EW — Earthworks, LIGHT - Light, and NOISE - Noise).

NU – Activity Rules

NU-R1	Operation, maintenance, repair, and remova network utilities	l of existing aboveground and underground
All Zones	Activity Status: PER	Activity status where compliance is not achieved: RDIS
	Where the following conditions are met:	
	· ·	Matters over which discretion is
	i. NU-S1 to NU-S7; and	restricted:
		outcome of any consultation with the
		relevant road controlling authority,
		KiwiRail or Transpower.
		i. Whether the dimensions of the site or
		other physical characteristics of the site

NU-R2	New underground network utilities (including	j. Whether there are any characteristics or technical requirements of the proposed use that will make compliance impracticable. k. Transport, access and parking effects. l. Whether the non-compliance with the bulk, form and scale, location and number of poles, antennas or associated supporting structures will lead to visual dominance and loss of visual amenity as viewed from adjoining properties and the surrounding neighbourhood. As part of this consideration will be given to effects on amenity on any habitable buildings and in particular the proximity and visibility of the amateur radio configuration to habitable rooms and outdoor living areas.
	of existing underground network utilities, no	ot otherwise provided for in this chapter
All Zones	Activity Status: PER	Activity status where compliance is not achieved: NC
	Where the following conditions are met:	
	i. NU-S4; and	
	ii. NU-S5.	
NU-R3	Upgrading of existing above ground network	
All Zones	Activity Status: PER	Activity status where compliance is not achieved: RDIS
	Where the following conditions are met:	delileved. NBIO
		Where:
	 i. The realignment, relocation, or replacement of a line, pipe, 	Compliance is not achieved with NU-S1 or NU-S2.
	telecommunication pole, pole, tower,	NO-02.
	conductor, switch, transformer, or	Matters over which discretion is
	ancillary structure is within 5m of the	restricted:
	existing alignment or location; a. a pole is not replaced with a	a. Avoiding, remedying or mitigating of any effects deriving from non-compliance with
	tower;	the particular standard(s) that is not met.
	b. a replacement pole, tower, or	b. The functional need and operational need
	telecommunication pole does not exceed the height of the	of, and benefits derived from, the network utility, including the potential impact on
	replaced pole or tower or	the levels of service or health and safety
	telecommunication pole by the	if the work is not undertaken.
	greater of:	c. The bulk, height, location, and design of
	i. more than 15%; or ii. the maximum structure	the network utility, including any associated buildings or structures.
	height for the underlying	d. The amenity values of the respective
	zone set out in NU-S1;	zone and the extent to which any adverse
i e	_ ,	
	c. the diameter or width of a	amenity effects can be avoided,
	c. the diameter or width of a replacement pole or	remedied, or mitigated.
	c. the diameter or width of a	1

the replaced pole at its widest
point; or

- ii. where a single pole is replaced with a pi pole, the width of the pi pole structure must not exceed three times the width of the replaced pole at its widest point;
- d. a replacement tower's footprint does not exceed the width of the tower by more than 25%;
- e. there are no additional towers;
- f. an additional pole, up to a maximum of two poles, is necessary to achieve the conductor clearances required by NZECP 34:2001; and
- g. all structures that are no longer required for network utility purposes are removed within two years of being replaced or becoming redundant; or
- The realignment, relocation, or replacement of any other network utility;
 - a. all structures that are no longer required for network utility purposes are removed within two years of being replaced or becoming redundant; and
 - b. compliance is achieved with all Network Utilities Standards.

- adverse effects.
- g. The location of network utilities, including the need for connections to existing networks and services.
- Effects on areas of outstanding natural features and landscapes, waterbodies, indigenous vegetation, historic heritage, and sites and areas of significance to Māori.
- i. The local, regional and national benefits of network utilities.

Activity status where compliance is not achieved: NC

Where:

Compliance is not achieved with NU-S4 or NU-S5.

NU-R4	Aboveground customer connection lines to existing above ground network utilities	
Residential and	Activity Status: PER Activity status where compliance i achieved: RDIS	
Commercial	Where the following conditions are met:	
Zones	i. NU-S1 to NU-S7; and ii. The connection does not include a new tower; and iii. The connection does not exceed three additional poles.	Matters over which discretion is restricted: a. Avoiding, remedying or mitigating of any effects deriving from non-compliance with the particular standard(s) that is not met. b. The purpose, necessity, and location of
All other zones	Activity Status: PER Where the following conditions are met:	the aboveground customer connection line. c. The potential adverse amenity effects of
	i. NU-S1 to NU-S7.	the aboveground connection, including impacts on the amenity values of the locality, and any contribution to cumulative adverse effects.
		d. The location of, including the need for, connections to existing networks and services.e. Effects on areas of outstanding natural

Activity Status: PER Where the following conditions are met: i. NU-S1 to NU-S7; and ii. The temporary network utility operates for a maximum of 12 months; and iii. All temporary network utility are removed from the site on completion of the works. Matters over which discretion is restricted: a. Avoiding, remedying or mitigating of any effects deriving from non-compliance with the particular standard(s) that is not met. b. The functional need and operational need of, and benefits from, the temporary network utility, including the potential impact on the levels of service or health and safety if the work is not undertaken. c. The bulk, height, location, and design of the network utility, including any associated buildings or stutures. d. The amenity values of the respective zone and the extent to which any adverse amenity effects can be avoided, remedied, or mitigated. e. The location of network utilities, including the need for connections to existing networks and services. g. The location of network utilities, including the need for connections to existing networks and services. h. Effects on areas of outstanding natural features and landscapes, waterbodies, indigenous vegetation, historic heritage, and sites and areas of significance to Māori. Activity status where compliance is not achieved: NC Where: Compliance is not achieved with NU-S4 or NU-S5.			features and landscapes, waterbodies, indigenous vegetation, historic heritage, and sites and areas of significance to Māori. Activity status where compliance is not achieved: NC Where: Compliance is not achieved with NU-S4 or NU-S5.
where the following conditions are met: i. NU-S1 to NU-S7; and ii. The temporary network utility operates for a maximum of 12 months; and iii. All temporary network utilities and associated buildings and structures are removed from the site on completion of the works. **Bulk, height, location, and design of the metwork utility, including the potential impact on the levels of service or health and safety if the work is not undertaken. **C. The bulk, height, location, and design of the network utility, including any associated buildings or structures. **D. The amenity values of the respective zone and the extent to which any adverse amenity effects can be avoided, remedied, or mitigated. **E. The necessity of the temporary network utility. **E. The necessity of the temporary network utilit	NU-R5	Temporary network utilities	
Where: Compliance is not achieved with NU-S4 or NU-S5.	All Zones	i. NU-S1 to NU-S7; and ii. The temporary network utility operates for a maximum of 12 months; and iii. All temporary network utilities and associated buildings and structures are removed from the site on	achieved: RDIS Matters over which discretion is restricted: a. Avoiding, remedying or mitigating of any effects deriving from non-compliance with the particular standard(s) that is not met. b. The functional need and operational need of, and benefits from, the temporary network utility, including the potential impact on the levels of service or health and safety if the work is not undertaken. c. The bulk, height, location, and design of the network utility, including any associated buildings or structures. d. The amenity values of the respective zone and the extent to which any adverse amenity effects can be avoided, remedied, or mitigated. e. The necessity of the temporary network utility. f. The time, duration, or frequency of adverse effects. g. The location of network utilities, including the need for connections to existing networks and services. h. Effects on areas of outstanding natural features and landscapes, waterbodies, indigenous vegetation, historic heritage, and sites and areas of significance to Māori. Activity status where compliance is not
NU-S5.			Where:
	NU-R6	Substations (including switching stations)	NU-S5.

	enclosed by a building	
All Zones	Activity status: PER	Activity status where compliance is not achieved: RDIS
	i. The maximum building and structure height is:	Matters over which discretion is restricted: a. Avoiding, remedying or mitigating of any effects deriving from non-compliance with the particular standard(s) that is not met. b. The functional need and operational need of, and benefits from, the network utility, including the potential impact on the levels of service or health and safety if the work is not undertaken. c. The bulk, height, location, and design of the network utility, including any associated buildings or structures. d. The amenity values of the respective zone and the extent to which any adverse visual amenity effects can be avoided, remedied, or mitigated, including: i. any innovative design that integrates the network utility within the site, existing built form and/or landscape in a way that assists to maintain the character and amenity of the surrounding area; and ii. whether the use of landscaping and/or recessive colours and finishes can assist to mitigate any adverse effects. e. Whether the works may result in public health and/or safety risks. f. The location of network utilities, including the need for connections to existing networks and services. g. Effects on areas of outstanding natural features and landscapes, waterbodies, indigenous vegetation, historic heritage, and sites and areas of significance to Māori. h. The local, regional and national benefits of network utilities
NU-R7	New network utilities in existing buildings	
All Zones	Activity Status: PER	Activity status where compliance is not achieved: NC
	Where the following conditions are met:	
	i. NU-S4 and NU-S5.	
NU-R8	Navigational aids, sensing, and environme quality and meteorological)	ental monitoring equipment (including air

All Zones	Activity Status: PER Where the following conditions are met:	Activity status where compliance is not achieved: NC
NII DO	i. NU-S4 and NU-S5.	
NU-R9	Overhead lines and associated support electricity below 110kV)	structures (including those that convey
Rural and Industrial zones	Activity Status: PER Where the following conditions are met: i. NU-S1 to NU-S7.	Activity status where compliance is not achieved: RDIS Matters over which discretion is restricted: a. The functional need and operational need of, and benefits from, the network utility, including the potential impact on the levels of service or health and safety if the work is not undertaken. b. The effects of non-compliance with any Network Utilities Standards. c. The bulk, height, location, and design of the network utility, including any associated buildings or structures. d. The time, duration, or frequency of adverse effects. e. The location of network utilities, including the need for connections to existing networks and services. f. Effects on areas of outstanding natural features and landscapes, waterbodies, indigenous vegetation, historic heritage,
All other zones	Activity Status: DIS	and sites and areas of significance to Māori. Activity status where compliance is not
	Where the following conditions are met:	achieved: NC
	i. NU-S4 and NU-S5.	
NU-R10	Communications kiosk or minor utility structures and cabinets, and electric vehicle charging stations	
All zones	Activity Status: PER	Activity status where compliance is not achieved: RDIS
	 i. NU-S4 and NU-S5; and ii. The structure does not exceed: a. A height of 3.5m and an area of 1.5m2; or b. A height of 2m and an area of 5m2. 	Where: Compliance is not achieved with NU-R10(ii) Matters over which discretion is restricted: a. The functional need and operational need of, and benefits from, the temporary network utility, including the potential impact on the levels of service or health and safety if the work is not undertaken.

- a. 1.6m in vertical length;
- b. 60mm in diameter; and
- c. 1.5m in horizontal length;
- vi. A headframe does not exceed:
 - a. 2.5m in diameter in Residential Zones (except when located in a road as provided for by (iii)(b) above); or
 - b. 6m in diameter in all other zones;
- vii. For antenna attached to a building, the antenna does not exceed a height of 5m above the point of attachment to the building;
- viii. Other network utility buildings or structures do not exceed a footprint of 6m2 or a height of 1.8m;

- relevant Network Utilities Standards.
- e. The necessity of the temporary network utility.
- f. The time, duration, or frequency of adverse effects.
- g. The location of network utilities, including the need for connections to existing networks and services.
- Effects on areas of outstanding natural features and landscapes, waterbodies, indigenous vegetation, historic heritage, and sites and areas of significance to Māori.

Activity status where compliance is not achieved: NC

Where:

Compliance is not achieved with NU-S4 or NU-S5.

NU-R12 Aboveground network utilities (including network utility buildings and structures and enclosed substations) not provided for by another rule in this chapter

All zones

Activity Status: PER

Where the following conditions are met:

- i. NU-S1 to NU-S7;
- The maximum building and structure height for the underlying zone is complied with, or the building does not exceed a height of 10m, whichever is greater;
- iii. The building or structure does not exceed a footprint of 20m²;
- iv. The building or structure is set back3m from any site boundary in anyResidential Zone.

Activity status where compliance is not achieved: RDIS

Where:

Compliance is achieved with NU-S4 and NU-S5.

Matters over which discretion is restricted:

- a. The functional need and operational need of, and benefits from, the temporary network utility, including the potential impact on the levels of service or health and safety if the work is not undertaken.
- b. The bulk, height, location, and design of the network utility, including any associated buildings or structures.
- c. The amenity values of the respective zone and the extent to which any adverse amenity effects can be avoided, remedied, or mitigated.
- d. The effects of non-compliance with any relevant Network Utilities Standards.
- e. Whether the works may result in public health and/or safety risks.
- f. The location of network utilities, including the need for connections to existing networks and services.
- g. Effects on areas of outstanding natural features and landscapes, waterbodies,

		indigenous vegetation, historic heritage, and sites and areas of significance to Māori.
		Activity status where compliance is not achieved: NC
		Where:
		Compliance is not achieved with NU-S4 or NU-S5.
NU-R13	Activities not otherwise provided for (that are not regulated by an NES)	
All zones	Activity Status: DIS	

NU – Standards

NU-S1	Maximum structure height (poles, towers, and telecommunications poles including combined height of pole and antenna)	
Residential Zones	For towers and poles: 15m	
	For telecommunications poles: 15m or 5m above the permitted height standard of the zone in which the structure is located, whichever is the greater.	
	Except that: 1. Omni directional 'whip', GPS, or dipole antenna that complies with dimensions in NU-R11(d) are excluded from the 'combined height' (i.e. only the pole needs to comply with the maximum structure height).	
	Lightning rods are exempt from maximum height standard.	
Commercial Zones	For towers and poles: 20m	
	For telecommunications poles: 20m or 5m above the permitted height standard of the zone in which the structure is located, whichever is the greater.	
	Except that: 1. Omni directional 'whip', GPS, or dipole antenna that complies with dimensions in NU-R11(d) are excluded from the 'combined height' (i.e. only the pole needs to comply with the maximum structure height).	
	Lightning rods are exempt from maximum height standard.	
All other zones	25m, or 30m where there are two or more users of the same pole.	
NU-S2	Buildings and structure height and setbacks	
All zones	Buildings and structures comply with the building height, setback, and height in relation to boundary standards for the underlying zone.	
NU-S3	Parking and access requirements	
All zones	 Where a network utility is permanently staffed: A minimum of 1 car park per full time equivalent must be provided; Any new carparks must meet the relevant requirements for on-site vehicle parking spaces in the TRAN Chapter; and Any new vehicle access point must meet the relevant access requirements of the TRAN Chapter. 	

NU-S4	Radio Frequency Fields	
All Zones	If generating radiofrequency fields, an activity must not exceed the maximum exposure level of the general public in New Zealand Standards NZS2772.1: 1999 Radiofrequency fields - Maximum exposure levels - 3KHz to 300 GHz.	
NU-S5	Electric and Magnetic Fields	
All Zones	If generating electric and magnetic fields, the activity must not exceed the International Commission on Non-Ionising Radiation Protection Guidelines for limiting exposure to time varying electric and magnetic fields (1Hz - 100kHz) (Health physics, 2010, 99(6); 818-836) and recommendations from the World Health Organisation monograph Environmental Health Criteria (No 238, June 2007).	
NU-S6	Light	
All Zones	Activities must meet the light standards in LIGHT Chapter.	
NU-S7	Noise	
All Zones	Activities must meet the noise standards in NOISE Chapter.	
NU-S8	Size and dimensions	
Residential Zones	 Above ground buildings and structures must not exceed a gross floor area limit of: a. 10m (where located within road reserve); and b. 15m (where located outside road reserve). A dish antenna must not exceed 1.2m in diameter. A panel antenna must: a. fit within an envelope of 3.5m in length and 0.7m in width (where located within) road reserve); and a. not exceed a width of 0.7m (where located outside road reserve). A headframe must not exceed 2.5m in diameter. Omni directional 'whip' or dipole antenna must not exceed:	
Rural Zones	 Above ground buildings and structures must not exceed a gross floor area limit of: a. 10m (where located within road reserve); and b. 50m (where located outside road reserve). Except that: Where located within an Outstanding Natural Landscape or Outstanding Natural Feature identified in NFL-SCHED6, above ground buildings and structures must not exceed a gross floor area limit of:	

	 c. 1.5m in horizontal length. 6. A telecommunications cabinet must not exceed a footprint of 5m and height of 2.5m. 7. A telecommunications kiosk must not exceed a height of 3.5m and a footprint of 3.5m.
Commercial and industrial zones	 Above ground buildings and structures must not exceed a gross floor area limit of: a. 10m (where located within road reserve); and b. 50m (where located outside road reserve). A dish antenna must not exceed 3m in diameter. A panel antenna must: a. fit within an envelope of 3.5m in length and 0.7m in width (where located within road reserve); and b. not exceed a width of 0.7m (where located outside road reserve). A headframe must not exceed 6m in diameter. Omni directional 'whip' or dipole antenna must not exceed:



ENG - Energy

The provisions in this chapter override the respective Zone provisions in Part 3 Area-Specific Matters, unless otherwise specified in this chapter.

Introduction

Energy is critical to the functioning of the Tararua District. Increasing demand for energy at a local level has an impact on the limited resources available to provide energy – while non-renewable resources such as gas and coal will eventually be depleted, renewable resources including hydro, solar, wind power, and biomass sources are becoming increasingly more prominent and viable. These sources, however, may also bring about adverse effects on the environment, such as visual impacts and the impact on natural ecosystems. Tangata whenua understands the potential of renewable energy and its value in Tararua not just to whanau and hapu but for commercial reasons too.

The RMA defines renewable energy as energy produced from solar, wind, hydro, geothermal, biomass, tidal, wave and ocean current sources. The use and development of renewable energy can be in a number of different forms. At the domestic scale, there are various ways to use natural sources of heat, including the orientation of buildings towards the sun to assist passive heating, cooling, and natural lighting. Significant gains can also be made through solar water heating or solar panels in dwellings.

The New Zealand Government has set a target, under the New Zealand Energy Strategy, for 90% of the country's electricity to be generated from renewable energy resources by the year 2025. The Strategy states that the major energy challenges facing New Zealand are the need to respond to the risks of climate change by reducing greenhouse gas emissions caused by the production and use of energy and the need to deliver clean, secure, affordable energy while managing the environment responsibly. To achieve this, the National Policy Statement on Renewable Electricity Generation (NPSREG) came into effect on 13 May 2011 and sets out an objective and policies to enable the sustainable management of renewable electricity generation under the RMA.

Renewable electricity generation is defined in the NPSREG as the generation of electricity from renewable energy. Renewable electricity generation activities are also defined as the construction, operation and maintenance of structures associated with renewable electricity generation. These include small and community-scale distributed renewable generation activities and the system required to convey electricity to the distribution network and/or the national grid and electricity storage technologies associated with renewable electricity.

Sections 7(i) and 7(j) of the RMA also require all persons exercising functions and powers under the RMA to have particular regard to the effects of climate change and the benefits to be derived from the use and development of renewable energy.

The renewable energy provisions in this part of the Plan recognise renewable energy as an essential natural resource and set direction for activities that convert renewable energy into electricity. This part also interrelates with the activities for network utility operators in the NU-Network Utilities chapter of the Plan.

Objectives

ENG-01

Enable and encourage the sustainable and efficient use and development of renewable energy resources within the Tararua District.

ENG-02 Increase the resilience of communities within the district by:

- 1. Enabling renewable electricity generation activities where appropriate; and
- 2. Encouraging the development of on-site and community scale renewable electricity generation activities; and
- 3. Recognising the positive benefits and contribution of renewable electricity generation towards reducing the effects of climate change.

ENG-O3

Renewable electricity generation activities are designed and located to minimise adverse effects on communities and the environment while recognising their operational or locational constraints.

Policies

ENG-P1

To provide for the use and development of renewable energy resources of the District for electricity generation in recognition of the particular local, regional and national benefits in relation to climate change, national energy production and social and economic wellbeing.

ENG-P2

Enable the ongoing operation, maintenance, repair and minor upgrade of existing renewable electricity generation activities within the district, providing significant adverse effects on the environment are avoided, remedied or mitigated.

ENG-P3

In all zones, recognise the benefits of small-scale electricity generation in a form that is commensurate with the function, nature and scale of the anticipated activities, where they are appropriately managed, by having regard to:

- 1. benefits of community scale renewable electricity generation, including resilience benefits;
- 2. transport and infrastructure capacity to accommodate the activity;
- 3. the ability to protect the productive capacity of highly productive land;
- 4. potential adverse effects from the activity, including traffic generation, visual, light, safety, and noise;
- 5. cumulative effects with other renewable electricity generation developments;
- 6. risk from natural hazards, where relevant:
- 7. the scale of the activity and potential effects on the surrounding area;
- 8. potential for adverse effects on natural features and landscapes, waterbodies, indigenous biodiversity, historic heritage, and sites of significance to Māori;
- 9. the design and site layout of the activity and its ability to internalise effects;
- 10. consideration of long-term management and responsibilities for the development; and
- 11. whether there is adequate separation from sensitive activities to ensure adverse effects, including potential adverse reverse sensitivity effects, are minimised.

ENG-P4

Recognise the potential for community scale and localised renewable electricity generation activities in most zones in the district where the electricity generated is shared with consumers in the same community or for the users of the site itself. For any application, recognise the social and economic benefit to the community from sharing electricity that has been generated locally.

ENG-P5

To provide for the identification, investigation, establishment, development, upgrading, operation and maintenance of new and existing renewable electricity generation activities in a manner that supports the protection of the District's:

- 1. Outstanding Natural Landscapes (in NFL-SCHED); and
- Historic Heritage as identified in HH-SCHED and Sites and Areas of Significance to M\u00e4ori as identified in SASM-SCHED.

ENG-P6

To recognise the environmental, functional, operational and technical constraints of managing new and existing renewable electricity generation activities.

ENG-P7

To provide for large-scale renewable electricity generation activities where effects are appropriately managed, by having regard to:

- 1. benefits of large-scale renewable electricity generation;
- 2. any locational, technical, or operational constraints;
- 3. transport and infrastructure capacity to accommodate the activity;
- 4. earthworks and construction effects;
- 5. the design and site layout of the activity and its ability to internalise effects;
- 6. potential adverse effects from the activity, including traffic generation, visual, light, safety, and noise;
- 7. whether there is adequate separation from sensitive activities to ensure adverse effects, including potential adverse reverse sensitivity effects, are minimised:
- 8. cumulative effects from multiple renewable electricity generation activities;
- potential for adverse effects on natural features and landscapes, waterbodies, indigenous biodiversity, historic heritage, and sites of significance to Māori;
- 10. potential effects on the productive capacity of the land, including the ability to protect the productive capacity of highly productive land;
- 11. consideration of long-term management and responsibilities for the development; and
- 12. any adaptive management measures proposed.

ENG-P8

To protect renewable electricity generation activities from reverse sensitivity effects.

ENG-P9

To recognise that in some circumstances not all significant environmental effects of renewable electricity generation activities can be avoided or remedied. In determining if a proposal is consistent with sustainable management, regard will be had to any environmental compensation or mitigation measures offered by the applicant as part of the proposal.

ENG-P10

For any co-generation or waste to energy conversion:

- 1. Acknowledge the benefits of the efficient use and disposal of waste; and
- 2. Manage more than minor adverse environmental effects created by this activity; and
- 3. Appropriately locate these activities within the:
 - a. Rural production zone; or
 - b. General rural zone; or
 - c. Industrial zone.

ENG-P11

Allow facilities which produce biogas by anaerobic fermentation of waste, ensuring both the benefits and any effects, including the potential for reverse sensitivity effects, are taken into account. Avoid locating these facilities in areas of the district where a non-complying activity status is signalled in the rules.

Rules

The rules that apply to Energy are contained in the tables listed below. To undertake any activity, it must comply with all the rules listed in:

- ENG-R1 to ENG-R7 Activities Rules; and
- ENG-S1 to ENG-S6 Performance Standards; and

- Any relevant provision in Part 2 District-Wide Matters; and
- Any relevant provision in Part 3 Area Specific Matters.

Where an activity breaches more than one rule, the most restrictive status shall apply to the activity. Refer to Part 1 - How the Plan Works for an explanation of how to use this plan, including activity status abbreviations.

It is important to note that in addition to the provisions in this chapter, zone chapters and a number of other Part 2: District-Wide Matters chapters also contain provisions that may be relevant for activities relating to Energy.

ENG – Activity Rules

ENG-R1	Small-scale Renewable Energy Gener maintenance, repair, and upgrade	ation Activities, including operation,	
	Means electricity generated for use solely on the site on which it is generated, with or without exporting excess supply back into the distribution network.		
All zones	Activity Status: PER	Activity status where compliance is not achieved: RDIS	
Rural zones	i. Electricity generation is from solar panels only; and ii. In the GRZ, are attached to a dwelling or accessory building roof; iii. In the GRUZ, are attached to a dwelling or building, or freestanding; iv. ENG-S4, ENG-S5 and ENG-S6. Activity status: CON	Matters over which discretion is restricted: a. Benefits of small-scale electricity generation, including resilience benefits. b. Noise, amenity, and visual effects. c. The type, scale, form, and location of any structure. d. Actual and potential loss of highly productive land.	
	Where the following conditions are met:		
	 i. Electricity generation is from a maximum of one wind turbine only; and 		
	ii. ENG-S2, ENG-S4, ENG-S5 and ENG-S6.		
	Matters over which discretion is restricted:		
	Benefits of small-scale electricity generation, including resilience benefits.		
	b. Noise, amenity, and visual effects. c. The type, scale, form, and location		
	of structures. d. Measures to avoid and minimise any potential loss of highly productive land.		
ENG-R2	Community-scale renewable electricity of operation, maintenance, repair, and upgrade		
	Means electricity generated for supplying a exporting excess supply back into the distribute	an immediate community, with or without	
All Zones	Activity status: RDIS	Matters over which discretion is restricted:	
	Where the following conditions are met:	a. Benefits of community-scale renewable electricity generation, including	
	i. The activity is not located within:	resilience benefits.	

	a. A hazard area;	b. Noise effects.
	b. Outstanding Natural Landscapes;	c. Landscape, visual, and amenity effects.
	c. Coastal Environment;	d. Effects on the road network.
	d. Sites and areas of significance to Māori;	e. Noise, amenity, and visual effects. f. Cumulative effects with other
		renewable electricity generation
	ii. ENG-S2, ENG-S4, ENG-S5 and ENG-S6.	developments.
	2110 00.	g. Risk from natural hazards, where relevant.
		h. Consideration of long-term
		management and responsibilities for
		the development. i. The type, scale, form, and location of
		any structure.
		j. Effects on adjacent areas of
		outstanding natural features and landscapes, surface waterbodies,
		indigenous vegetation, historic
		heritage, and sites and areas of
		significance to Māori. k. Cumulative effects with other
		renewable electricity generation
		developments. I. Actual and potential loss of highly
		productive land.
		Activity Status where compliance is not
		Activity Status where compliance is not achieved: DIS
ENG-R3	Operation, maintenance, repair, and rengeneration activities	noval, of existing renewable electricity
All zones	Activity Status: PER	Activity status where compliance is not achieved: RDIS
All zones	Activity Status: PER Where the following conditions are met:	achieved: RDIS
All zones	Where the following conditions are met:	achieved: RDIS Matters over which discretion is
All zones	Where the following conditions are met: i. The operation, maintenance and repair are not otherwise captured by	achieved: RDIS Matters over which discretion is restricted: a.The functional need and operational
All zones	Where the following conditions are met: i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2.	achieved: RDIS Matters over which discretion is restricted: a. The functional need and operational need for structures to remain.
All zones	Where the following conditions are met: i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are	achieved: RDIS Matters over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects.
All zones	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are	achieved: RDIS Matters over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly
All zones	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being	achieved: RDIS Matters over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects.
	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant.	achieved: RDIS Matters over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly
ENG-R4	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant. Wind monitoring masts	achieved: RDIS Matters over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly productive land.
	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant.	achieved: RDIS Matters over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly
ENG-R4 Rural	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant. Wind monitoring masts	achieved: RDIS Matters over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly productive land. Activity status where compliance with is not achieved: RDIS
ENG-R4 Rural	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant. Wind monitoring masts Activity Status: PER	achieved: RDIS Matters over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly productive land. Activity status where compliance with is
ENG-R4 Rural	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant. Wind monitoring masts Activity Status: PER Where the following conditions are met: i. Limited to: a. a height of 90m; and	Activity status where compliance with is not achieved: RDIS Matter over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly productive land. Activity status where compliance with is not achieved: RDIS Matter over which discretion is limited: a. The extent to which activities on adjacent properties will be adversely
ENG-R4 Rural	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant. Wind monitoring masts Activity Status: PER Where the following conditions are met: i. Limited to: a. a height of 90m; and ii. must be set back at least 500m from	Activity status where compliance with is not achieved: RDIS Matter over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly productive land. Activity status where compliance with is not achieved: RDIS Matter over which discretion is limited: a. The extent to which activities on adjacent properties will be adversely affected in terms of visual domination,
ENG-R4 Rural	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant. Wind monitoring masts Activity Status: PER Where the following conditions are met: i. Limited to: a. a height of 90m; and ii. must be set back at least 500m from the boundaries of the site. iii. Must not be located within a	Activity status where compliance with is not achieved: RDIS Matter over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly productive land. Activity status where compliance with is not achieved: RDIS Matter over which discretion is limited: a. The extent to which activities on adjacent properties will be adversely affected in terms of visual domination, noise and vibration, and the ability to mitigate any adverse effects.
ENG-R4 Rural	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant. Wind monitoring masts Activity Status: PER Where the following conditions are met: i. Limited to: a. a height of 90m; and ii. must be set back at least 500m from the boundaries of the site. iii. Must not be located within a Outstanding Natural Landscape.	Activity status where compliance with is not achieved: RDIS Matter over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly productive land. Activity status where compliance with is not achieved: RDIS Matter over which discretion is limited: a. The extent to which activities on adjacent properties will be adversely affected in terms of visual domination, noise and vibration, and the ability to mitigate any adverse effects. b. Location and scale of the wind
ENG-R4 Rural	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant. Wind monitoring masts Activity Status: PER Where the following conditions are met: i. Limited to:	Activity status where compliance with is not achieved: RDIS Matter over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly productive land. Activity status where compliance with is not achieved: RDIS Matter over which discretion is limited: a. The extent to which activities on adjacent properties will be adversely affected in terms of visual domination, noise and vibration, and the ability to mitigate any adverse effects.
ENG-R4	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant. Wind monitoring masts Activity Status: PER Where the following conditions are met: i. Limited to:	Activity status where compliance with is not achieved: RDIS Matter over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly productive land. Activity status where compliance with is not achieved: RDIS Matter over which discretion is limited: a. The extent to which activities on adjacent properties will be adversely affected in terms of visual domination, noise and vibration, and the ability to mitigate any adverse effects. b. Location and scale of the wind monitoring mast and associated structures. c. Special technical requirements and
ENG-R4	i. The operation, maintenance and repair are not otherwise captured by ENG-R1 or ENG-R2. ii. All aboveground structures that are no longer required for renewable electricity generation purposes are removed within two years of being replaced or becoming redundant. Wind monitoring masts Activity Status: PER Where the following conditions are met: i. Limited to: a. a height of 90m; and ii. must be set back at least 500m from the boundaries of the site. iii. Must not be located within a Outstanding Natural Landscape. iv. Must not be located within the National Grid Yard.	achieved: RDIS Matters over which discretion is restricted: a. The functional need and operational need for structures to remain. b. Noise effects. c. Landscape, visual, and amenity effects. Actual and potential loss of highly productive land. Activity status where compliance with is not achieved: RDIS Matter over which discretion is limited: a. The extent to which activities on adjacent properties will be adversely affected in terms of visual domination, noise and vibration, and the ability to mitigate any adverse effects. b. Location and scale of the wind monitoring mast and associated structures.

	equipment must be removed within 5 years of the date of the notice of commencement.	Outstanding Natural Landscapes, will be avoided, remedied, or mitigated. Activity status where compliance with is not achieved with ENG-R4(iii): NC
ENG-R5	Large-scale renewable electricity generation activities or upgrade of existing large-scale renewable electricity generation activities	
	Means electricity generation activities utilising renewable energy sources for the purpose of exporting electricity directly into the distribution network or National Grid. It includes all ancillary components and activities such as substations, battery energy storage systems, climate/environmental monitoring equipment, earthworks, roading, maintenance buildings, temporary concrete batching plants, internal transmission and fibre networks, vegetation clearance, and site rehabilitation works.	
Rural Zones	Activity Status: DIS	
All other Zones	Activity Status: NC	
ENG-R6	Renewable electricity generation activities not otherwise provided for	
	Activity Status: DIS	
ENG-R7	Non-renewable electricity generation activities	
	Activity Status: NC	

ENG - Standards

ENG-S1 Inve	stigations
All zones	 Wind monitoring masts do not exceed 90 m in height in the General Rural Zone, and 20 m in height in all other zones. Other than for anemometers, any other utility equipment does not exceed the permitted height in relation to boundary and setback standards for the underlying zone. All masts are removed at the end of the investigation period. The site is restored to its pre-works condition after completion of all investigation
	activities, and the removal of all investigation equipment. 5. The investigation equipment is not on-site for more than a total period of five years.
ENG-S2 Com	munity-scale solar electricity generation
All zones	 The area occupied by solar panels covers a maximum area of 1 ha. Any freestanding solar panel structure must not exceed: a. the permitted height in relation to boundary for the underlying zone; b. the permitted setback standards for the underlying zone; or c. a maximum height of 6 m above ground level.
ENG-S3 Com	nmunity-scale wind turbine requirements
All zones	 Maximum height above natural ground level to the tip of the blade: 65m. Maximum number of turbines per site: three turbines. All turbines must be set back a distance of not less than three times the height of the turbine, from the boundary of any other site in different ownership, any road and any above ground communication or electrical transmission lines.
ENG-S4 Max	imum height and setbacks
All zones	Except as required by standards ENG-S2 and ENG-S3, buildings and structures comply with the building height, setback, and height in relation to boundary

	standards for the underlying zone.
ENG-S5 Light	
All zones	Activities must meet the light standards in LIGHT.
ENG-S6 Noise	
All zones	Activities must meet the noise standards in NOISE.