17 ENERGY AND UTILITIES

17.1 Purpose

Energy and Utilities are of strategic importance and require a coordinated approach in relation to the development of energy resources, the generation of electricity and the provision of essential infrastructure throughout the District.

Energy

Energy resources play a key role in the socio-economic wellbeing and growth of the District. Under Section 7 of the RMA, Council must have particular regard to energy efficiency, climate change, and the benefits of the use and development of renewable energy. There is a national commitment to increase energy generation from renewable energy resources compared to non-renewables and this is reinforced in the National Policy Statement on Renewable Electricity Generation 2011.

This commitment recognises additional energy generation is required to satisfy future demand, beyond conservation and efficiency measures. The Council seeks to encourage small and community scale generation and to recognise the particular advantages of solar energy within the District. This will be achieved through more enabling provisions for solar photovoltaic panels, solar hot water heating systems and promoting solar efficient design.

The generation of electricity from non-renewable sources is generally discouraged although it is recognised by Council that it is necessary to provide standby generation for essential public, civic, community and health functions as well as within remote areas not connected to the local electricity distribution network.

Energy efficiency and conservation go hand in hand with renewable energy. Conserving the use of energy together with the generation of renewable energy will be vital in responding to the challenges of providing enough energy to meet future energy needs and reducing greenhouse gas emissions.

Utilities

Utilities are essential to the servicing and functioning of the District.

Due to the importance of the role of utilities in providing essential services to the community, their often high capital cost to establish; and their long life expectancy, it is important that the Plan acknowledges the need for the establishment and on-going functioning, maintenance and upgrading of utilities. In addition, some utilities have specific locational needs that need to be accommodated for their operation. Co-location may reduce capital investment and also environmental effects.

It is recognised while network utilities can have national, regional and local benefits, they can also have adverse effects on surrounding land uses, some of which have been established long before the network utility. The sustainable management of natural and physical resources requires Council to achieve a balance between the effects of different land uses.

17.2 Other Relevant Provisions

17.2.1 District Wide Rules

The rules contained in this Section take precedence over any other rules that may apply to utilities (as defined) and renewable electricity generation activities in the District, except:

(a) Where the following District Wide rules are not met then resource consent will be required in respect of that matter.

17.2.1.1	Heritage Protection	Refer Section 13
17.2.1.2	Transport	Refer Section 14
17.2.1.3	Subdivision, Development and Financial Contributions	Refer Section 15
17.2.1.4	Hazardous Substances	Refer Section 16
17.2.1.5	Signs	Refer Section 18
17.2.1.6	Relocated & Temporary Buildings and Temporary Activities	Refer Section 19

- (b) Where the following standards within the zone in which the activity is located are not met then resource consent will be required in respect of that matter:
 - (i) Noise
 - (ii) Earthworks

Utilities can also be provided as designations. Refer to Appendix 1 – Designations of the Plan for conditions and descriptions of designated sites.

National Environmental Standards

Notwithstanding any other rules in the District Plan, the National Grid existing as at 14 January 2010 is covered by the Resource Management (National Environmental Standard for Electricity Transmission Activities) Regulations 2009 (NESETA) and must comply with the NESETA. No other rules in the District Plan that duplicate or conflict with the Standard shall apply.

The Resource Management (National Environmental Standards for Telecommunications Facilities "NESTF") Regulations 2008 provide for:

- a. The planning and operation of a telecommunication facility such as a mobile phone transmitter, that generates radio frequency fields as a permitted activity, provided it complies with the New Zealand Standard on Radiofrequency Fields Part 1: Maximum Exposure Levels 3kHz to 300 GHz (NZS 2772.1:1999).
- b. The installation of telecommunications equipment cabinets in the road reserve as a permitted activity, subject to specified limitations on their size and location.

- c. Noise from telecommunications equipment cabinets located in the road reserve as a permitted activity, subject to the specified noise limits.
- d. The installation or replacement of masts and antennas on existing structures in the road reserve as a permitted activity, subject to specified limitations on height and size.

Compliance with the 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, including any activities that are otherwise permitted by the District Plan must comply with this legislation.

17.3 Objectives and Policies

Energy

- 17.3.1 Objective 1 Ensure that the benefits of the District's renewable and nonrenewable energy resources and the electricity generation facilities that utilise such resources are recognised as locally, regionally and nationally important in the sustainable management of the District's resources.
- 17.3.2 Objective 2 Recognise that the use and development of renewable energy resources have the following particular benefits:
 - a. Maintains or enhances electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions;
 - Maintains or enhances the security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;
 - c. Assists in meeting international climate change obligations; and
 - d. Reduces reliance on imported fuels for the purpose of generating electricity.
- 17.3.3 Objective 3 Enable new technologies using renewable energy resources to be investigated and established in the district.

- 17.3.3.1 Recognise the national, regional and local benefits of the District's renewable and non-renewable electricity generation activities when considering resource consent applications for their development, operation, maintenance and upgrading.
- 17.3.3.2 Enable the operation, maintenance, repowering, upgrade and development of existing non-renewable electricity generation activities where adverse effects can be avoided, remedied or mitigated.
- 17.3.3.3 Recognise and provide for the development, operation, maintenance, repowering and upgrading of new and existing renewable electricity generation activities, (including small and community scale), in a manner that:
 - a. Recognises the need to locate renewable electricity generation activities where the renewable electricity resources are available.

- b. Recognises logistical and technical practicalities associated with developing, upgrading, operating and maintaining renewable electricity generation activities.
- c. Encourages, facilitates and provides for research and exploratory-scale investigations into existing and emerging renewable electricity generation technologies and methods.
- 17.3.4 Objective 4 Energy resources are developed and electricity is generated, in a manner that minimises adverse effects on the environment.

- 17.3.4.1 Promote Small and Community-Scale Distributed Electricity Generation structures and associated buildings where their effects on amenity values can be remedied or mitigated.
- 17.3.4.2 Ensure the visual effects of Wind Electricity Generation do not exceed the capacity of an area to absorb change or detract from landscape and visual amenity values.
- 17.3.4.3 Promote Biomass Electricity Generation in proximity to available fuel sources that minimise external effects on the surrounding road network and the amenity values of neighbours.
- 17.3.4.4 Assess the adverse effects of renewable electricity generation, other than Small and Community Scale, on a case-by-case basis, to ensure those activities:
 - (a) Avoid, remedy or mitigate any significant adverse effects on landscape values and areas with significant indigenous flora or fauna.
 - (b) Avoid, remedy or mitigate adverse effects on recreation and cultural values, including relationships with takata whenua.
 - (c) Avoid, remedy or mitigate adverse effects on amenity values.
- 17.3.4.5 Protect existing energy facilities, associated infrastructure and undeveloped energy resources from reverse sensitivity effects of incompatible subdivision, land use and development.
- 17.3.4.6 Where the adverse effects of energy generation activities cannot be practically avoided, remedied or mitigated, consideration shall be given, in determining a resource consent application and imposing resource conditions, to any offset measures and/or environmental compensation including measures or compensation which benefit the local environment and community affected.
 - 17.3.4.7 Provide for investigation into and development and operation of non-renewable energy resources including standby power generation and Stand Alone Power systems where adverse effects can be mitigated.

17.3.5 Objective 5 - Building design and development takes into consideration energy efficiency and conservation.

Policies

- 17.3.5.1 Encourage energy efficiency and conservation practices, including use of energy efficient materials and renewable energy in development.
- 17.3.5.2 Encourage subdivision and development to be designed so that buildings can utilise energy efficiency and conservation measures, including by orientation to the sun and through other natural elements, to assist in reducing energy consumption.
- 17.3.5.3 Transport networks should be designed so that the number, length and need for vehicle trips is minimised, and reliance on private motor vehicles is reduced, to assist in reducing energy consumption.
- 17.3.5.4 To control the location of buildings and outdoor living areas to reduce impediments to access to sunlight.

UTILITIES

17.3.6 Objective 6 - Co-ordinate the provision of utilities with the development of the District.

Policies

- 17.3.6.1 To ensure the provision of utilities to service new development prior to buildings being occupied, and activities commencing.
- 17.3.6.2 To ensure the proper management of solid waste by:
 - (i) providing landfill sites for the present and future disposal of solid waste;
 - (ii) assessing trends in solid waste; and
 - (iii) identifying solid waste sites for future needs.
- 17.3.6.3 To recognise the future needs of utilities and ensure their provision in conjunction with the provider.
- 17.3.6.4 To assess the priorities for servicing established urban areas, which are developed but are not reticulated.
- 17.3.6.5 To ensure reticulation of those areas identified for urban expansion or redevelopment is achievable, and that a reticulation system be implemented prior to subdivision.
- 17.3.7 Objective 7 The establishment, efficient use and maintenance of utilities necessary for the well-being of the community.

- 17.3.7.1 To recognise the need for maintenance or upgrading of a utility to ensure its ongoing use and efficiency.
- 17.3.7.2 To take economic costs and strategic needs into account when considering the alternative locations, sites or methods for the establishment or alteration of a utility.
- 17.3.7.3 To encourage the co-location of facilities where operationally and technically feasible.
- 17.3.7.4 To provide for the sustainable, secure and efficient use and development of the electricity transmission network, including within the transmission line corridor, and to protect activities from the adverse effects of the electricity transmission network, including by:
 - a. Buildings, structures and vegetation within close proximity to existing transmission corridors shall be controlled to avoid, remedy or mitigate any adverse effects on the safe and efficient development, operation and maintenance of the electricity transmission network
 - Discouraging sensitive activities from locating within the electricity transmission yard to minimise potential reverse sensitivity effects on the transmission network;
 - c. Managing subdivision within the electricity transmission corridors to achieve the outcomes in (a) and (b) and to facilitate good amenity and urban design outcomes; and
 - d. Not foreclosing operation or maintenance options or, to the extent practicable, the carrying out of routine and planned upgrade works.
- 17.3.7.5 To recognise the presence and function of established network utilities, and their locational and operational requirements, by managing land use, development and/or subdivision in locations which could compromise their safe and efficient operation and maintenance, to ensure the long-term efficient and effective functioning of that utility.
- 17.3.8 Objective 8 Avoid remedy or mitigate the adverse effects of utilities on the surrounding environments, particularly those in or on land of high landscape value, and within special character areas.

- 17.3.8.1 To reduce adverse effects associated with utilities by:
 - (a) Avoiding or mitigating their location on sensitive sites, including heritage and special character areas, Outstanding Natural Landscapes and Outstanding Natural Features, and skylines and ridgelines,
 - (b) Encouraging co-location or multiple use of network utilities where this is efficient and practicable in order to avoid, remedy or mitigate adverse effects on the environment,
 - (c) Ensuring that redundant utilities are removed,

- (d) Using landscaping and or colours and finishes to reduce visual effects, and
- (e) Integrating utilities with the surrounding environment; whether that is a rural environment or existing built form.
- 17.3.8.2 To require the undergrounding of services in new areas of development where technically feasible.
- 17.3.8.3 To encourage the replacement of existing overhead services with underground reticulation or the upgrading of existing overhead services where technically feasible.
- 17.3.8.4 To take account of economic and operational needs in assessing the location and external appearance of utilities.

17.4 Rules

17.4.1 Clarification

- 17.4.1.1 The following tables describe activities, standards and subsequent level of activity for resource consent purposes. Any utility which is not defined as a Controlled or Discretionary or Non-complying Activity in Table 17.1 below is a Permitted Activity.
- 17.4.1.2 The following abbreviations are used in the tables.

Р	Permitted	С	Controlled
RD	Restricted Discretionary	D	Discretionary
NC	Non Complying	PR	Prohibited

17.4.2 Activities

Activities shall be subject to the following rules set out in Table 17.1. All activities, including permitted activities shall be subject to the standards in rule 17.5.

TABLE 17.1

Activity		Activity Status
	ENERGY RULES	
17.4.2.1	Small and Community-Scale Distributed Electricity Generation and Solar Water Heating (including any structures and associated buildings) is a permitted activity where it is not listed as a Non-Complying Activity, Discretionary Activity, Restricted Discretionary Activity and complies with all of the Standards within Rule 17.5 - Table 17.2.	Р
17.4.2.2	Small and Community-Scale Distributed Electricity Generation and Solar Water Heating that is not listed as a Non-Complying	RD

	Activity	Activity Status
	Activity or Discretionary Activity and that does not comply with one or more of the Standards within Rule 17.5 - Table 17.2 shall be a Restricted Discretionary Activity.	
17.4.2.3	i Sensitive Environments	
	Small and Community-Scale Distributed Electricity Generation and Solar Water Heating in any of the following areas:	
	(a) Residential Arrowtown Historic Management Zone	
	(b) Town Centre Special Character Areas	
	(c) Open Space Zones (Part 20)	
	(d) Any open space and landscape buffer areas identified on any of the Special zone structure plans (Part 12)	
	(e) Sites of significant indigenous vegetation	D
	ii Rural General Zone	
	(a) Any new or additional building housing plant and electrical equipment associated with Renewable Electricity Generation activities located within the Rural General Zone.	
	(b) Structures associated with Renewable Electricity Generation activities, other than Solar Electricity Generation and Solar Water Heating structures that form part of, or are attached to a building, located within the Rural General Zone.	
	iii Renewable Electricity Generation Activities, other than Small and Community-Scale Distributed Electricity Generation.	
17.4.2.4	Power generation from non-renewable sources, except where the generation only supplies activities on the site on which it is located and involves either:	
	(a) Standby generators associated with community, health care, and utility activities; or	NC
	(b) Generators that are part of a Stand-Alone Power System on remote sites that do not have connection to the local distributed electricity network.	
	UTILITIES	
	The Plan rules differentiate between four types of activities: lines and support structures; masts and antennae; utility buildings; and flood protection works & waste management facilities.	

	Activity	Activity Status
17.4.2.5	Any utility which is not listed as a Controlled or Discretionary or Non-Complying Activity in Rules 17.4.2.7 – 17.4.2.16 is a Permitted Activity .	Р
17.4.2.6	Lines and Supporting Structures – except minor upgrading	
	A conductor line, or support structure for overhead lines, to convey electricity (at a voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or overhead lines for any other purpose including telecommunications in all zones. This rule shall not apply to minor upgrading as defined.	С
	The Council has reserved its control in respect of location or route, height and appearance of supporting structures and number of overhead lines.	
17.4.2.7	Telecommunication and Radiocommunication Facilitates, Navigation, Meteorological Facilities	
	Any telecommunication and radiocommunication facility, navigation or meteorological communication facility where it involves erecting:	
	(a) Within the Rural General Zone any mast greater than 8m but less than or equal to 15m in height.	
	(b) Within the Town Centre Zones (Arrowtown, Queenstown and Wanaka) any mast greater than 8m but less than or equal to 10m in height.	С
	(c) in zones with a maximum building height of less than 8m (except for the Business and Industrial Zones), a mast greater than the maximum height permitted for buildings of the zone or activity area in which it is located.	
	(d) If circular shaped an antenna greater than 1.2m in diameter but less than 2.4m in diameter. If another shape, an antenna greater than 1.2m in length or breadth but less than 2.4m in length and breadth.	
	The Council has reserved its control in respect of location, external appearance and access.	
17.4.2.8	Buildings	
	The addition, alteration or construction of buildings greater than $10m^2$ in area and 3m in height, other than masts for any telecommunication and radiocommunication facility, navigation or meteorological communication facility or supporting structures for lines.	С

	Activity	Activity Status
	Control is reserved in respect of location, external appearance, associated earthworks, access and landscaping.	
	This rule shall not apply to structures up to 10m² in area and less than 3m in height above ground level;	
	nor shall it apply where buildings are:	
	Specified as being a discretionary activity in the zone which they are located; or	
	Located in the Rural General zone; or	
	• Located on the site of a protected feature as identified in Appendix 3.	
	In the above cases the rules in the underlying zone shall apply.	
	(Excludes buildings and structures [other than masts for any telecommunication and radiocommunication facility, navigation or meteorological communication facility or supporting structures for lines] in areas of significant indigenous vegetation; the Residential Arrowtown Historic Management Zone and the Remarkables Park Zone) which are discretionary activities under Rule 17.4.2.11.	
17.4.2.9	Lines and Supporting Structures – except minor upgrading	
	Any line or support structure where it involves:	
	(a) Erecting any lattice towers for overhead lines to convey electricity in all zones;	
	(b) Erecting any support structures for new overhead lines to convey electricity (at a voltage of more than 110kV with a capacity over 100MVA) in all zones;	
	(c) Erecting any support structures for overhead lines to convey electricity (at a voltage of equal to or less than 110kV at a capacity of equal to or less than 100MVA); or overhead lines for any other purposes including telecommunications in any Outstanding Natural Feature or Outstanding Natural Landscape or Area of Significant Indigenous Vegetation;	D
	(d) Utilising any existing support structures for the erection of cable television aerials and connections;	
	(e) Erecting any support structures for overhead lines for any purpose in the area in Frankton known as the "Shotover Business Park" (as identified on the District Plan Maps;	
	except where: any new poles are solely for the purpose of	

	Activity	Activity Status
	providing street lighting.	
17.4.2.10	Telecommunication and Radiocommunication Facilities, Navigation, Meteorological Facilities	
	Any telecommunication and radiocommunication facility, navigation or meteorological facility where it involves:	
	(a) Erecting any mast, or erecting any antenna greater than 1.2m in diameter (if circular in shape) or 1.2m in length or breadth (if another shape)	
	in:	
	(i) Any Outstanding Natural Landscape or Outstanding Natural Feature;	
	(ii) Area of Significant Indigenous	
	(iii) The Residential Arrowtown Historic Management Zone.	
	(iv) Any open space and landscape buffer areas identified on any of the Special Zone structure plans (Part 12)	
	(v) Town Centre Special Character Areas and Heritage Precincts	
	(b) Erecting antenna greater than 2.4m in diameter or 3m in length or breadth, except omni directional (or "whip) antenna which shall not exceed 4m length, in the following zones: Residential (other than the Residential Arrowtown Historic Management Zone), Rural Lifestyle, Rural Residential, Township, Resort, Airport Mixed Use, Visitor, Town Centre, Corner Shopping Centre, Bendemeer, Penrith Park and Business Zones.	D
	(c) Erecting any antenna greater than 2.4m in diameter length or breadth and/or 4m in length if a whip antenna, in Rural General Zones.	
	(d) Erecting a mast which is over 15m in height in the Rural General zone.	
	(e) In all other zones including the Town Centre Zones (Arrowtown, Queenstown and Wanaka) with a maximum building height of less than 8m (except the Business and Industrial Zones) and erecting a mast which is over 10m in height.	
	(f) In the Business and Industrial Zones, and in all other zones with a maximum building height of 8m or greater, erecting a mast which exceeds the maximum height of buildings in the zone it is located by more than 5m.	

	Activity	Activity Status
17.4.2.11	Buildings Any addition, alteration or construction of buildings and structures,	
	other than masts for any telecommunication and radiocommunication facility, navigation or meteorological communication facility or supporting structures for lines	5
	in:	D
	(a) Any areas of significant indigenous vegetation	
	(b) The Residential Arrowtown Historic Management Zone.	
	(c) The Remarkables Park Zone	
17.4.2.12	Flood Protection Works	
	The construction of any new flood protection works shall be a discretionary activity (non-notified), provided that this standard shall not apply to any works carried out in relation to the maintenance, reinstatement or replacement of existing flood protection works for the purpose of maintaining the flood carrying capacity of water courses and/or maintaining the integrity of existing river protection works.	D
17.4.2.13	Waste management facilities	D
17.4.2.14	Any utility, except overhead conductors lines and supporting structures (including minor upgrading), which does not comply with one or more of the following site standards shall be a Discretionary Activity with the exercise of the Council's discretion being confined to the matter(s) specified in the Utilities Standard(s) not complied with.	D
17.4.2.15	In the Remarkables Park Zone, all lattice towers or overhead lines or support structures for overhead lines for any purpose (except any poles solely for the purpose of street lighting); or any mast for any purpose; or any antenna greater than 1.2m in diameter, length or breadth (except omni-directional or 'whip' antenna which should not exceed 4 metres in length).	NC

17.5 STANDARDS

The following standards in Table 17.2 apply to Energy activities and Table 17.3 Utilities including permitted activities. Failure to comply with the standards in Tables 17.2 or Table 17.3 results in the requirement for resource consent, with the relevant activity status identified in the non-compliance column.

TABLE 17.2.

	ENERGY STANDARDS	Non-
17.5.1	i Solar Electricity Generation and Solar Water Heating	compliance:
	(a) Solar Electricity Generation and Solar Water Heating structures shall not overhang the edge of any building.	
	(b) Solar Electricity Generation cells, modules and panels and Solar Water Heating collector panels shall be recessive colours: black, dark blue, grey or brown. Frames, mounting, fixing hardware shall be finished in similar recessive colours. Recessive colours shall be selected to be the closest colour to the building to which they form part of, are attached to, or service.	RD
	(c) Solar Electricity Generation and Solar Water Heating structures shall be set back in accordance with the internal and road boundary setbacks for buildings in the zone in which they are located. Exemptions for accessory buildings shall not apply.	
	(d) Solar Electricity Generation and Solar Water Heating Structures shall not exceed the maximum height or intrude through any recession planes applicable in the zone in which they are located.	
	(e) Free standing Solar Electricity Generation and Solar Water Heating structures shall not exceed 2.5 metres in height.	
	(f) Free standing Solar Electricity Generation and Solar Water Heating structures shall not exceed 150 m2 in area. Refer solar interpretative diagrams	
17.5.2	ii Mini and Micro Hydro	
	(a) Mini and Micro Hydro Electricity Generation structures shall comply with Road and Internal Boundary Building Setbacks in the zone in which they are located.	
	(b) Mini and Micro Hydro Electricity Generation structures shall not exceed 2.5 metres in height.	RD
	(c) Mini and Micro Hydro Electricity Generation structures shall be finished in recessive colours consistent with the building it is servicing on site.	
	Note: Reference should also be made to the Otago Regional Council Water Plan Rules.	

17.5.3	iii Wind Electricity Generation	
	(a) Wind Electricity Generation within any residential zone, including any residential areas of special zones.	
	(b) There shall be no more than two Wind Electricity Generation turbines or masts on any site.	RD
	(c) Wind Electricity Generation turbines and masts shall be pole construction and there shall be no lattice towers.	
	(d) Wind Electricity Generation structures shall be set back in accordance with the internal and road boundary setbacks for buildings in the zone in which they are located. Exemptions for accessory buildings shall not apply.	
	(e) Wind Electricity Generation structures shall not exceed the maximum height or intrude through any recession planes applicable in the zone in which they are located.	
	In the Rural General and Gibbston Character Zones the maximum height shall be that specified for non-residential building ancillary to viticulture or farming activities (10m).	
	The maximum height for a wind turbine shall be measured to the tip of blade when in vertical position.	
	(f) Wind Electricity Generation structures shall be painted in non-reflective paint.	
	Refer interpretive diagram for wind turbines.	
17.5.4	iv Biomass Electricity Generation	
	(a) Biomass Electricity Generation fuel material shall be sourced on the same site as the generation plant, except in Industrial Zones (and Industrial Activities Areas within Structure Plans).	RD
	(b) Any outdoor storage of Biomass Electricity Generation fuel material shall be screened from adjoining sites and public places.	
	(c) Biomass Electricity Generation plant and equipment shall be located inside a Building.	
	Note: Reference should also be made to the Otago Regional Council Air Plan Rules.	
17.5.5	v Associated buildings	
	Any building housing plant and electrical equipment associated with Renewable Electricity Generation activities, unless permitted in the	RD

zone in which it located or approved by resource consent, shall:

(a) not exceed 10m² in area and 2.5m in height; and

(b) be set back in accordance with the internal and road boundary setbacks for accessory buildings in the zone in which it is located; and

(c) be finished in recessive colours, consistent with the building it is servicing on site.

TABLE 17.3

	UTILITIES STANDARDS	
	The following standards apply to Utilities activities including permitted activities. Failure to comply with the standards in Table 17.3 results in the requirement for resource consent, with the relevant activity status identified in the non-compliance column.	
17.5.6	Setback from internal boundaries and road boundaries	D
	Where the utility is a building, it shall be setback in accordance with the internal and road boundary setbacks for accessory buildings in the zone in which it is located.	
17.5.7	Buildings in Outstanding Natural Landscapes and Outstanding Natural Features	D
	Any building within an ONL or ONF shall be less than 10m2 in area and less than 3m in height.	
17.5.8	Height	D
	All buildings or structures, (excluding masts and antennas for any telecommunication and radiocommunication facility, navigation or meteorological communication facility) shall comply with the relevant maximum height provisions for buildings of the zone they are located in.	
17.5.9	Compliance with New Zealand Standards	D
	All development of utilities including associated earthworks shall comply with NZS4404:2011.	
17.5.10	National Grid Corridors	
	(A) The following buildings and structures are permitted within the National Grid Yard which is delineated on the District Plan Maps:	NC
	(a) A non-conductive fence located 5m or more from any National Grid Support Structure and no more than	

2.5m in height

- (b) Any utility within a transport corridor or any part of electricity infrastructure that connects to the National Grid
- (c) Any new non-habitable building less than 2.5m high and 10m2 in floor area
- (d) Any non-habitable building or structure used for agricultural activities provided that they are:
 - (i) Located at least 12m from a National Grid Support Structure
 - (ii) Not a milking shed/dairy shed (excluding the stockyards and ancillary platforms), or a commercial glasshouse
- (e) Alterations to existing buildings that do not alter the building envelope.
- (B) Earthworks within the National Grid Yard, subject to Rule 3.17, is a permitted activity provided that:
 - (a) Earthworks within 2.2 metres of a National Grid pole support structure or stay wire shall be no deeper than 300mm
 - (b) Earthworks between 2.2 metres to 5 metres of a National Grid pole support structure or stay wire shall be no deeper than 750mm
 - (c) Earthworks within 6 metres of the outer visible edge of a National Grid Transmission Tower Support Structure shall be no deeper than 300mm
 - (d) Earthworks between 6 metres to 12 metres from the outer visible edge of a National Grid Transmission Tower Support structure shall be no deeper than 3 metres
 - (e) Earthworks shall not create an unstable batter that will affect a transmission support structure
 - (f) Earthworks shall not result in a reduction in the existing conductor clearance distance below what is required by Table 4 of New Zealand Electrical Code of Practice34:2001
- (C) The following earthworks are exempt from (B) above:
 - (a) Earthworks undertaken in the course of constructing or maintaining utilities

(b) Earthworks undertaken as part of agricultural activities or domestic gardening
 (c) Repair sealing, resealing of an existing road, footpath, farm track or driveway
 (D) Earthworks that does not comply with Rule 4(B)(a), (b), (c) or (d) above, shall be a restricted discretionary activity.

17.6 Non-Notification of Applications

- 17.6.1 Any application for resource consent for the following matters shall not require the written consent of other persons and shall not be notified or limited-notified:
 - i Stand-Alone Power Systems (SAP's).
 - ii Controlled activities.

ADD NEW DEFINITIONS WHICH ARE NOT WITHIN THE OPERATIVE DISTRICT PLAN

BIOMASS ELECTRICITY GENERATION - Means energy derived from biomass being recently living organisms such as wood, wood waste, by-products of agricultural processes and waste). For the purpose of Section 17 it shall be limited to biomass systems used to generate electricity.

MINI AND MICRO HYDRO ELECTRICITY GENERATION - Conversion of the energy of falling water into electricity. Mini and micro generation may utilise impulse or reaction turbines and include intake or diversion structures, small weir, headrace, penstock, channel, pipes and generator.

MINOR UPGRADING – means maintenance, replacement and upgrading of existing conductors or lines and support structures provided they are of a similar character, intensity and scale to the existing conductors or line and support structures and shall include the following:

- (a) Replacement of existing support structure poles provided they are less or similar in height, diameter and are located within 1 metre of the base of the support pole being replaced;
- (b) Addition of a single service support structure for the purpose of providing a service connection to a site, except in the Rural General zone;
- (c) The addition of up to three new support structures extending the length of an existing line provided the line has not been lengthened in the preceding five year period, except in the Rural General Zone;
- (d) Replacement of conductors or lines provided they do not exceed 30mm in diameter or the bundling together of any wire, cable or similar conductor provided that the bundle does not exceed 30mm in diameter;
- (e) Re-sagging of existing lines;
- (f) Replacement of insulators provided they are less or similar in length;
- (g) Addition of lightning rods, earth-peaks and earth-wires;

NATIONAL GRID CORRIDOR - Means the area measured either side of the centreline of above ground National Grid line as follows:

- (A) 16m for the 110kV lines on pi poles
- (B) 32m for 110kV lines on towers
- (C) 37m for the 220kV transmission lines

Note: The National Grid Corridor does not apply to underground cables or any transmission lines (or sections of line) that are designated.

NATIONAL GRID SENSITIVE ACTIVITIES: Means buildings or parts of buildings used for, or able to be used for the following purposes:

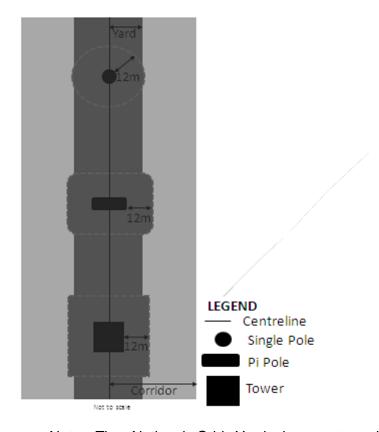
(A) Child Day Care activity;

- (B) Day Care activity;
- (C) Educational activity, except training related to the National Grid;
- (D) Home Stay;
- (E) Hospital activity;
- (F) Papakainga;
- (G) Residential activity;
- (H) Residential Care Activity; or
- (I) Visitor accommodation

NATIONAL GRID YARD: Means:

- (A) the area located 12 metres in any direction from the outer edge of a National Grid support structure; and
- (B) the area located 12 metres either side of the centreline of any overhead National Grid line;

(as shown in dark grey in diagram below)



Note: The National Grid Yard does not apply to underground cables or any transmission lines (or sections of line) that are designated.

PHOTOVOLTAICS (PV) - A device that converts the energy in light (photons) into electricity, through the photovoltaic effect. A PV cell is the basic building block of a PV system, and cells are connected together to create a single PV module (sometimes called a 'panel'). PV modules can be connected together to form a larger PV array.

RENEWABLE ENERGY - Means energy that comes from a resource that is naturally replenished, including solar, hydro, wind, and biomass energy.

RENEWABLE ELECTRICITY GENERATION (REG) - Means generation of electricity from solar, wind, hydro-electricity, geothermal and biomass energy sources.

RENEWABLE ELECTRICITY GENERATION ACTIVITIES - Means the construction, operation and maintenance of structures associated with renewable electricity generation. This includes small and community-scale distributed renewable generation activities and the system of electricity conveyance required to convey electricity to the distribution network and/or the national grid and electricity storage technologies associated with renewable electricity. Includes research and exploratory-scale investigations into technologies, methods and sites, such as masts, drilling and water monitoring. For the purposes of Part 17 it includes both Renewable Electricity Generation and Solar Water Heating activities.

SENSITIVE ACTIVITIES-TRANSMISSION CORRIDOR - Means those activities within an Electricity Transmission Corridor that are particularly sensitive to the risks associated with electricity transmission lines because of either the potential for prolonged exposure to the risk or the vulnerability of the equipment or population that is exposed to the risk. Such activities include any residential activity, visitor accommodation, educational facility, healthcare facility and day care facility.

SMALL AND COMMUNITY-SCALE DISTRIBUTED ELECTRICITY GENERATION - Means renewable electricity generation for the purpose of using electricity on a particular site, or supplying an immediate community, or connecting into the local distribution network. For the purposes of Part 17 the rated capacity on any site shall be less than 1 MW.

SOLAR ELECTRCITY GENERATION - Means the conversion of the sun's energy directly into electrical energy. The most common device used to generate electricity from the sun is Photovoltaics (PV). This may include free standing arrays, solar arrays attached to buildings or building integrated panels.

SOLAR WATER HEATING - Solar water heating means devices that heat water by capturing the sun's energy as heat and transferring it directly to the water or indirectly using an intermediate heat transfer fluid. Solar water heaters may include a solar thermal collector, a water storage tank or cylinder, pipes, and a transfer system to move the heat from the collector to the tank.

STAND-ALONE POWER SYSTEMS (SAPS) - Off-grid generation for activities including residential, visitor and farming activities, on remote sites that do not have connection to the local distribution network. SAP's will usually include battery storage, a backup generator, an inverter and controllers etc, as well as generation technologies such as Solar, Mini or Micro Hydro, Wind Electricity Generation or combination thereof.

UTILITY – Means the systems, services, structures and networks necessary for operating and supplying essential utilities and services to the community including but not limited to:

- a. transformers, lines and necessary and incidental structures and equipment for the transmissions and distribution of electricity.
- b. Pipes and necessary incidental structures and equipment for transmitting and distributing gas.
- c. Storage facilities, pipes and necessary incidental structures and equipment for the supply and drainage or water or sewage.

- d. water and irrigation races, drains, channels, pipes and necessary incidental structures and equipment.
- e. structures, facilities, plant and equipment for the treatment of water.
- f. structures, facilities, plant, equipment and associated works for receiving and transmitting telecommunications and radiocommunications (see definition of telecommunication facilities).
- g. structures, facilities, plant, equipment and associated works for monitoring and observation of meteorological activities and natural hazards.
- h. structures, facilities, plant, equipment and associated works for the protection of the community from natural hazards.
- i. structures, facilities, plant and equipment necessary for navigation by water or air.
- j. waste management facilities.
- k. Anything described as a network utility operation in s166 of the Resource Management act 1991

Utility does not include structures or facilities used for electricity generation, the manufacture and storage of gas, or the treatment of sewage.

WIND ELECTRICITY GENERATION - Conversion of the energy from wind into electricity, through the use of the rotational motion. A wind turbine may be attached to a building or freestanding. Wind turbine components may include blades, nacelle, tower and foundation. For the purposes of Part 17 it shall include masts for wind monitoring.

CHAPTER 5 – RURAL AREAS

Delete the following from the Rural Areas chapter of the Operative District Plan.

5.3.3.4 Non-Complying Activities

iv Power Generation Facilities

Power generation facilities outside the areas scheduled under Rule 20.2, other than small hydro (1.5 to 2 k) inverter based systems for residential and non-residential activities.



ATTACHMENT 1 - OTAGO REGIONAL POLICY STATEMENT 1998

The Otago Regional Policy Statement (RPS) was made operative on 1st October 1998. Part of the framework established under the Resource Management Act 1991 for the sustainable management of Otago's natural and physical resources, the RPS provides an overview of the resource management issues facing Otago, and sets policies and methods to manage Otago's natural and physical resources.

The key sections of the RPS of relevance to the Energy and Utilities Section are outlined below.

SECTION 5: LAND

Section 5 of the RPS relates to Land. Objectives 5.4.1 to 5.4.2 and Policies 5.5.3 to 5.5.4 are relevant to the Energy and Utilities Section of the proposed District Plan.

Objective 5.4.1

To promote the sustainable management of Otago's land resources in order:

- (a) To maintain and enhance the primary productive capacity and life-supporting capacity of land resources; and
- (b) To meet the present and reasonably foreseeable needs of Otago's people and communities.

Objective 5.4.2

To avoid, remedy or mitigate degradation of Otago's natural and physical resources resulting from activities utilising the land resource.

Objective 5.4.3

To protect Otago's outstanding natural features and landscapes from inappropriate subdivision, use and development.

Policy 5.5.1

To recognise and provide for the relationship Kai Tahu have with Otago's land resource through:

- (a) Establishing processes that allow the existence of heritage sites, waahi tapu and waahi taoka to be taken into account when considering the subdivision, use and development of Otago's land resources; and
- (b) Protecting, where practicable, archaeological sites from disturbance; and
- (c) Notifying the appropriate runanga of the disturbance of any archaeological site and avoiding, remedying, or mitigating any effect of further disturbance until consultation with the kaitiaki runanga has occurred.

Policy 5.5.2

To promote the retention of the primary productive capacity of Otago's existing high class soils to meet the reasonably foreseeable needs of future generations and the avoidance of uses that have the effect of removing those soils or their life-supporting capacity and to remedy or mitigate the adverse effects on the high class soils resource where avoidance is not practicable.

Policy 5.5.3

To maintain and enhance Otago's land resource through avoiding, remedying or mitigating the adverse effects of activities which have the potential to, among other adverse effects:

- (a) Reduce the soil's life-supporting capacity
- (b) Reduce healthy vegetative cover
- (c) Cause soil loss
- (d) Contaminate soils
- (e) Reduce soil productivity
- (f) Compact soils
- (g) Reduce soil moisture holding capacity.

Policy 5.5.4

To promote the diversification and use of Otago's land resource to achieve sustainable landuse and management systems for future generations.

Policy 5.5.5

To minimise the adverse effects of landuse activities on the quality and quantity of Otago's water resource through promoting and encouraging the:

- (a) Creation, retention and where practicable enhancement of riparian margins; and
- (b) Maintaining and where practicable enhancing, vegetation cover, upland bogs and wetlands to safeguard land and water values; and
- (c) Avoiding, remedying or mitigating the degradation of groundwater and surface water resources caused by the introduction of contaminants in the form of chemicals, nutrients and sediments resulting from landuse activities.

Policy 5.5.6

To recognise and provide for the protection of Otago's outstanding natural features and landscapes which:

- (a) Are unique to or characteristic of the region; or
- (b) Are representative of a particular landform or land cover occurring in the Otago region or of the collective characteristics which give Otago its particular character; or
- (c) Represent areas of cultural or historic significance in Otago; or
- (d) Contain visually or scientifically significant geological features; or
- (e) Have characteristics of cultural, historical and spiritual value that are regionally significant for Tangata Whenua and have been identified in accordance with Tikanga Maori.

The Energy and Utilities Chapter seeks to promote the sustainable development, growth and management of the District's energy and utilities resources. It also serves to meet the reasonably foreseeable needs of people and the community in providing for their social and economic wellbeing.

SECTION 6: WATER

Section 6 relates to Water. Objectives 6.4.2; 6.4.3; 6.4.5; 6.4.6 and 6.4.8 and associated Policies 6.5.4 and 6.5.7 are relevant to the Energy and Utilities Chapter of the proposed District Plan.

Objective 6.4.2

To maintain and enhance the quality of Otago's water resources in order to meet the present and reasonably foreseeable needs of Otago's communities.

Objective 6.4.3

To safeguard the life-supporting capacity of Otago's water resources through protecting the quantity and quality of those water resources.

Objective 6.4.5

To avoid, remedy or mitigate degradation of water resources resulting from the use, development or protection of the beds and banks of Otago's water bodies and of adjacent land areas.

Objective 6.4.6

To mitigate the threat of flooding and riverbank erosion resulting from the use, development or protection of Otago's water bodies and lake beds.

Objective 6.4.8

To protect areas of natural character, outstanding natural features and landscapes and the associated values of Otago's wetlands, lakes, rivers and their margins.

Policy 6.5.4

To investigate and, where appropriate, set minimum flow levels and flow regimes for Otago water bodies and maximum and minimum lake levels to protect any of the following:

- (a) The needs of Otago's communities;
- (b) Kai Tahu cultural and spiritual values;
- (c) Lake margin stability;
- (d) The natural character of the water body;
- (e) Habitats of indigenous fauna and flora;
- (f) Amenity values;
- (g) Intrinsic values of ecosystems;
- (h) Salmon or trout habitat;
- (i) Outstanding natural features or landscapes.

Policy 6.5.7

To maintain and where practicable enhance existing well vegetated riparian margins and, where necessary, to promote the creation of further such margins:

- (a) To provide for the preservation of the natural character of wetlands, rivers, lakes and their margins; and
- (b) To maintain and enhance water quality; and
- (c) To maintain and enhance ecological, amenity, intrinsic and habitat values; while considering the need to reduce threats posed by flooding and erosion.

The proposed provisions seek to provide for the further development of Mini and Micro Hydro developments as permitted activities in some areas of the District subject to compliance with development standards. Any structures which exceed 2.5m in height associated with Mini and Micro Hydro developments and/or which do not comply with internal boundary building setbacks in the zone they are located and/or were associated structures are not finished in recessive colours then restricted discretionary activity status will apply. Such standards seek to ensure that Mini and Micro Hydro developments are provided where their effects on amenity values can be remedied or mitigated. Reference is made within the proposed rules for the need to comply with the Otago regional Council's Water Plan. The proposed provisions will therefore be consistent with the relevant objectives and policies relating to Water in the RPS.

SECTION 7: AIR

Section 7 relates to Air. Objective 7.4.1 and associated Policies 7.5.2, 7.5.4 and 7.5.5 are relevant to the Energy and Utilities Section of the proposed District Plan.

Objective 7.4.1

To maintain and enhance Otago's existing air quality, including visual appearance and odour.

Policy 7.5.2

To avoid, remedy or mitigate any discharges which have adverse effects on the air resource including effects on human health, the environment, visual impacts and odour.

Policy 7.5.4

To promote and encourage activities and methods that avoid, remedy or mitigate the production and discharge of greenhouse gases and ozone depleting substances.

Policy 7.5.5

To encourage the use of fuels and combustion processes that have minimum adverse effects on the environment.

Some renewable electricity generation (for example Biomass) can result in discharges to air. The proposed provisions seek to provide for biomass electricity generation as a restricted discretionary activity subject to development standards which seek to ensure that potential effects are avoided, remedied or mitigated. The proposed provisions will therefore be consistent with the relevant Air objectives and policies in the RPS.

SECTION 9: BUILT ENVIRONMENT

Section 9 relates to the Built Environment. Objectives 9.4.1 to 9.4.3 and associated Policies 9.5.2; 9.5.3; 9.5.4 and 9.5.5 are relevant to the Energy and Utilities Section of the proposed District Plan.

Objective 9.4.1

To promote the sustainable management of Otago's built environment in order to:

- (a) Meet the present and reasonably foreseeable needs of Otago's people and communities; and
- (b) Provide for amenity values; and
- (c) Conserve and enhance environmental and landscape quality; and
- (d) Recognise and protect heritage values.

Objective 9.4.2

To promote the sustainable management of Otago's infrastructure to meet the present and reasonably foreseeable needs of Otago's communities.

Objective 9.4.3

To avoid, remedy or mitigate the adverse effects of Otago's built environment on Otago's natural and physical resources.

Policy 9.5.1

To recognise and provide for the relationship Kai Tahu have with the built environment of Otago through:

- (a) Considering activities involving papatipu whenua that contribute to the community and cultural development of Kai Tahu; and
- (b) Recognising and providing for the protection of sites and resources of cultural importance from the adverse effects of the built environment.

Policy 9.5.2

To promote and encourage efficiency in the development and use of Otago's infrastructure through:

- (a) Encouraging development that maximises the use of existing infrastructure while recognising the need for more appropriate technology; and
- (b) Promoting co-ordination amongst network utility operators in the provision and maintenance of infrastructure; and
- (c) Encouraging a reduction in the use of non-renewable resources while promoting the use of renewable resources in the construction, development and use of infrastructure; and
- (d) Avoiding or mitigating the adverse effects of subdivision, use and development of land on the safety and efficiency of regional infrastructure.

Policy 9.5.4

To minimise the adverse effects of urban development and settlement, including structures, on Otago's environment through avoiding, remedying or mitigating:

- (a) Discharges of contaminants to Otago's air, water or land; and
- (b) The creation of noise, vibration and dust; and
- (c) Visual intrusion and a reduction in landscape qualities; and
- (d) Significant irreversible effects on:
 - (i) Otago community values; or
 - (ii) Kai Tahu cultural and spiritual values; or
 - (iii) The natural character of water bodies and the coastal environment; or
 - (iv) Habitats of indigenous fauna; or
 - (v) Heritage values; or
 - (vi) Amenity values; or
 - (vii) Intrinsic values of ecosystems; or
 - (viii) Salmon or trout habitat.

Policy 9.5.5

To maintain and, where practicable, enhance the quality of life for people and communities within Otago's built environment through:

- (a) Promoting the identification and provision of a level of amenity which is acceptable to the community; and
- (b) Avoiding, remedying or mitigating the adverse effects on community health and safety resulting from the use, development and protection of Otago's natural and physical resources; and
- (c) Avoiding, remedying or mitigating the adverse effects of subdivision, landuse and development on landscape values.

Utilities are essential services which enable a community to undertake its everyday activities and functions. The proposed objectives and policies in Chapter 17 seek to provide for energy and utilities activities within the District in a safe and efficient manner, whilst ensuring that the amenity values of the District are adequately protected.

The proposed Energy and Utilities provisions also seek to manage land use activities to ensure that potential effects of local, regional and nationally significant infrastructure are appropriately avoided, remedied or mitigated through the implementation of development standards. These standards will ensure that energy and utilities activities occurring throughout the District are consistent with the relevant RPS *Built Environment* objectives and policies.

SECTION 12: ENERGY

Section 11 relates to Energy. Objective 12.4.1 – 12.4.3 and associated Policies 12.5.1 – 12.5.4 are relevant to the Energy and Utilities Chapter of the proposed District Plan.

Objective 12.4.1

To avoid, remedy or mitigate the adverse effects on Otago's communities and environment resulting from the production and use of energy.

Objective 12.4.2

To sustainably and efficiently produce and use energy taking into account community values and expectations.

Objective 12.4.3

To encourage use of renewable resources to produce energy.

Policy 12.5.1

Provide for procedures to prohibit the production of nuclear power throughout the region.

Policy 12.5.2

To promote the sustainable management and use of energy through:

- (a) Encouraging energy production facilities that draw on the region's renewable energy resources; and
- (b) Encouraging the use of renewable energy resources, in a way that safeguards the lifesupporting capacity of air, water, soil and ecosystems and avoids, remedies and mitigates adverse effects on the environment, as a replacement for non-renewable energy resources: and
- (c) Encouraging the sustainable development of Otago's renewable energy resources.

Policy 12.5.3

To promote improved energy efficiency within Otago through:

- (a) Encouraging the use of energy efficient technology and architecture; and
- (b) Educating the public about energy efficiency; and
- (c) Encouraging energy efficiency in all industry sectors: and
- (d) Encouraging energy efficient transport modes in Otago.

Policy 12.5.4

To promote the securing of appropriate benefits for Otago's communities from any energy developments within the region.

Proposed Chapter 17 seeks to promote measure to encourage efficiency in energy use, energy conservation and the use of renewable energy sources. The combined Energy and Utilities provisions proposed in Chapter 17 also seeks to ensure that the Proposed District Plan is aligned with national policy and seeks to recognise the national significance of renewable electricity generation activities and provide for its development within the District. As such the proposed provisions in Chapter 17 are considered to be consistent with the relevant RPS objectives and policies relating to Energy.

SECTION 13: WASTES AND HAZARDOUS SUBSTANCES

Section 13 relates to Wastes and Hazardous Substances. Objective 13.4.1 – 13.4.3 and associated Policies 13.5.2 and 13.5.9 are relevant to the Energy and Utilities Chapter of the proposed District Plan.

Objective 13.4.1

To protect Otago's communities, environment and natural resources from the adverse effects of the waste stream.

Objective 13.4.2

To encourage a reduction in the amount, range and type of waste generated in Otago.

Objective 13.4.3

To encourage an increase in the reuse, recycling and recovery of wastes.

Policy 13.5.2

To avoid, remedy or mitigate the adverse effects resulting from the disposal of solid wastes in Otago through:

- (a) Requiring that new landfills be located in appropriate areas taking account of landfill guidelines produced by the Ministry for the Environment; and
- (b) Requiring that safeguards be incorporated into landfill design to prevent adverse effects on the environment, taking account of landfill guidelines produced by the Ministry for the Environment; and
- (c) Encouraging a minimisation in the number of landfills, consistent with environmental and community requirements; and
- (d) Minimising the amount and type of litter disposed of within Otago through:
 - (i) Educating the public and promoting about the need to reduce littering; and
 - (ii) Providing facilities for the collection and disposal of litter; and
 - (e) Minimising the amount and types of solid waste generated within Otago by:
 - (i) Educating waste generators about the need to reduce waste and methods of doing this;
 - (ii) Encouraging waste audits; and
 - (iii) Requiring justification for consents to dispose of solid waste.

Policy 13.5.9

To minimise the amount of waste generated at source in Otago and to maximise the opportunities for the reuse, recycling and recovery of materials from the waste stream through promoting and encouraging:

- (a) A reduction in the quantity of material entering the waste stream; and
- (b) Material and products that are reusable and the recycling of material and substances that cannot be reused; and

(c) The recovery of resources from materials in the waste stream.

The definition of *Utility* within the Operative District Plan and the proposed definition include "waste management facilities". The proposed Energy and Utilities chapter includes provisions which seek to ensure the proper management of solid waste within the District including providing for landfill sites for the present and future disposal of solid waste and assessing trends and identifying future needs of the District. The proposed Energy and Utilities chapter is therefore considered to be consistent with the Waste provisions within the RPS.