ENERGY – ENRG

Overview

Energy is required to meet the day-to-day needs of people and communities and to facilitate social, cultural and economic activities. Development and use of renewable energy resources is becoming increasingly important as a way of meeting future energy demand in an environmentally sustainable manner.

Energy efficiency and the use and development of renewable energy are matters which the District Plan must have particular regard to under section 7 of the RMA. The District Plan must also give effect to the National Policy Statement on Renewable Electricity Generation 2011 which requires recognition of the benefits of *renewable electricity generation.*

The Gore District has the potential to provide for large scale energy production utilising wind. The District also contains substantial lignite reserves. ~~However, the adverse environmental effects arising from its production and use, particularly its contribution to *climate change,* rules out the development of lignite under current technology.~~ Coal, including lignite, remains a source of home heating and energy for large scale production facilities during the transition to renewable energy sources. [1]

Small scale electricity generation is utilised in the District using coal, solar, *water* and wind sources. ~~Coal, including lignite, remains a significant source of home heating. The Southland Regional Air Plan includes provisions providing for a transition away from this energy source.~~[2]

The location of *renewable electricity generation* facilities is often driven by their *functional need* and *operational need* to access renewable energy resources. With wind for example, suitable sites are located on exposed ridge lines where there is a constant wind. This limits the geographic areas where *renewable electricity generation activities* can occur. Logistical or technical practicalities, and the need to integrate with existing supporting *infrastructure,* may also place constraints on the location of these activities, as does potential effects on natural landscapes, amenity, ecosystems and indigenous biodiversity. [3]

Alternative approaches to the production of energy are emerging and such innovation can be expected to continue. This includes use of methane from *sewage* ponds and *landfills*, and production of hydrogen.

Adverse environmental *effects*, including *discharges* to air, visual impacts and *noise,* can arise from the investigation, development and utilisation of both renewable and non-renewable energy resources. Equally, the development and use of energy resources, including the generation of electricity, can be compromised by the location of incompatible land uses.

[1] Decision 38, paragraph 3.4.5
[2] Decision 38, paragraph 3.4.5
[3] Decision 38, paragraph 3.4.2

The efficient use of energy resources can be enhanced by good urban design and consideration of energy use and retention in *building* design.

Rules and standards in Part 3 - Area Specific Matters (zones) do not apply to activities managed under this chapter, unless expressly identified within the chapter. Rules and Standards in overlay chapters will apply where relevant.[4]

Objectives

ENRG-O1 The national significance and ~~significant~~ local, regional and national benefits derived from the use and development of renewable energy resources are recognised and provided for and the transitional need for non-renewable energy is appropriately and sustainably [5] managed.

ENRG-O2 The investigation, development, operation, maintenance and upgrading of *renewable electricity generation activities* is enabled.

ENRG-O3 *Effects* from the use and development of *renewable energy generation* ~~*electricity* generation activities~~ on people and communities, including impacts on Ngai Tahu cultural values listed in MW1.2, and the natural *environment* ~~and the underlying relationship Ngāi Tahu hold with the natural *environment*~~ are managed, while ~~recognising~~ acknowledging ~~practical constraints~~ *functional need* and *operational need*. ~~(eg, technical, locational, operational) from the use and development of renewable energy;~~[6]

ENRG-O4 The safe and[7] efficient operation, maintenance and upgrading of existing electricity generation activities is not constrained or compromised by *reverse sensitivity effects*.

Policies

ENRG-P1 Recognise the ~~local, regional and national~~ [8]benefits of *renewable electricity generation activities* including, but not limited to:

1. maintaining or increasing electricity generation capacity while avoiding, reducing or offsetting greenhouse gas emissions;
2. maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;
3. using renewable natural resources rather than finite resources;

[4] Decision 38, Paragraph 5.9.1
[5] Decision 38, paragraph 4.1.8
[6] Decision 38, paragraph 4.1.4
[7] Decision 38, paragraph 4.3.3
[8] Decision 38, paragraph 5.1.4

4. the reversibility of the adverse *effects* on the environment of some *renewable electricity generation* technologies; and
5. avoiding reliance on imported fuels for the purposes of generating electricity.

ENRG-P2 ~~Encourage and facilitate~~ Provide for the increased use and development [9] of renewable energy resources including the use of:

1. wind, solar and hydro; ~~and~~
2. *waste* products; and
3. gas *discharges*

as a source of energy production.

ENRG-P3 Adopt land use patterns, *site* layout and *building* design that achieve energy efficiency and conservation.

ENRG-P4 Recognise and provide for [10] ~~Support~~ activities associated with the investigation, identification and assessment of potential sites and energy sources for *renewable electricity generation.*

ENRG-P5 Provide for the investigation, development and operation, maintenance, and upgrading of new and existing *renewable electricity generation* activities and *green infrastructure* where adverse environmental or cultural *effects* appropriately managed.

ENRG-P6 Provide for the development, operation, maintenance and upgrading of small and community-scale *renewable electricity generation* where adverse environmental or cultural *effects* are appropriately managed.

ENRG-P7 Where practicable ~~A~~avoid the location of renewable and *non-renewable electricity generation* activities within the following areas ~~unless adverse effects can be mitigated~~:

1. outstanding natural features and landscapes;
2. *significant natural areas*; and
3. areas of *significant indigenous vegetation* ~~biodiversity~~ and significant habitats of indigenous fauna;

and where adverse effects cannot be avoided, ensure they are remedied or mitigated, and that any residual effects that cannot be remedied or mitigated are offset or compensated.[11]

[9] Decision 38, paragraph 5.2.3
[10] Decision 38, paragraph 5.2.3
[11] Decision 38, paragraph 5.3.5

ENRG-P8 Protect electricity generation activities, transmission and associated *infrastructure* ~~and undeveloped energy resources~~[12] from *reverse sensitivity effects* from incompatible *subdivision*, land use and development.

ENRG-P9 When considering any residual environmental *effects* arising from the use and development of energy resources that cannot be avoided, remedied or mitigated, regard may be had to offsetting measures or compensation, including:

1. measures which benefit the local *environment*; ~~and~~
2. measures which benefit the local community affected; and
3. measures which benefit *mana whenua* aspirations or projects

ENRG-P10 Recognise the need for resilient energy supply, including standby power generation in emergency situations, and stand-alone power systems where other sources are not available.

ENRG-P11 When considering proposals for new or expansion of existing ~~Require Large scale~~ *renewable electricity generation activities* - *large scale* have regard to: ~~to demonstrate they are located appropriately having regard to relevant land use zone, also considering the following:~~

1 compatibility with the zoning and any other spatial layers that apply;

~~1~~2 any ~~practical constraints, including~~ *functional need* or *operational need* relevant~~, logistical or technical constraints~~ to developing, upgrading, operating or maintaining the activity.

3 the effects of infrastructure required to facilitate distribution to the *national grid*;

~~2~~4 the location of, and *effects* on, existing *structures* and *infrastructure;* ~~including, but not limited to, roads, navigation and telecommunication structures and facilities, and connections to distribution networks, and the efficient use of land;~~

~~3~~5 the scale, intensity, duration or frequency of the activity's *effects*;

~~4~~6 the design and *site* layout of the activity and its ability to internalise *effects*;

~~5~~7 *earthworks* and construction *effects*;

~~6~~8 adverse amenity *effects*, including but not limited to visual, traffic generation, safety, *light spill,* shadow and *noise effects*;

~~7~~9 *effects* on ~~adequate separation distances from *sensitive activities* and *Outstanding Natural Features and Landscapes* to ensure conflict and *reverse sensitivity effects* are minimised;~~

[12] Decision 38, paragraph 5.4.4

~~8~~10 use of adaptive management measures through monitoring of adverse *effects*; and

~~9~~11 impacts on Ngāi Tahu cultural values~~, including those~~ listed in ~~MW2.3~~ MW-1.2.[13]

ENRG-P12 Encourage innovation and provide flexibility for new and existing *renewable electricity generation activities* to adopt new technologies and sources of renewable energy where this:

1. Increases the capacity and [14] efficient use of renewable energy resources; ~~or~~
2. Encourages the re-use of *structures* and associated *infrastructure* where appropriate; ~~or~~
3. Increases the resilience, safety or reliability of *renewable electricity generation activities*; or
4. Results in environmental benefits and enhancements.

ENRG-P13 Only allow the operation, maintenance, and upgrading *of non-renewable electricity generation* activities where:

a. The activity is existing;

b. It is required to assist the transition to renewable energy, and

c. the *effects* of the activity are avoided, remedied or mitigated. [15]

~~Notes~~[16]

~~Note 1~~	~~Provisions in Other Chapters~~
	~~The provisions in this chapter apply in addition to the provisions of the other chapters in the District Plan and the plan should be read as a whole. This chapter also implements other chapters in the District Plan that do not have specific rules such as Sites and Areas of Significance to Māori and Mana Whenua.~~

[13] Decision 38, paragraph 5.7.5
[14] Decision 38, paragraph 5.8.3
[15] Decision 38, paragraph 4.1.4
[16] Decision 38, paragraph 5.9.1

Rules

ENRG-R1	[17]***Small and community-scale*** ***Renewable Electricity Generation activities - small scale*** **construction, operation, maintenance, repairs and upgrading (including associated *structures*)**	
All Zones	**Activity Status:** Permitted Where: 1. ~~All Energy Standards~~ ENRG-S1, ENRG-S2, ENRG-S3 and ENRG-S4 are complied with; and 2. No *structure* or *building* is located in a *Outstanding Natural Feature or Landscape;* and 3. Any *structure* or *building* complies with the underlying zone bulk and location standards; and 4. No *structure* is attached to a scheduled heritage *building.*	**Activity status where compliance is not achieved with:** **ENRG-R1(1):** Restricted Discretionary **Matters of discretion:** 1. The matters of discretion of any infringed standard. **ENRG-R1(2) and ENRG-R1(3):** Discretionary **ENRG-R1(4)** Restricted Discretionary **Matters of discretion:** 1. The matters of discretion of HH-R2.
ENRG-R2	[18]***Renewable Electricity Generation Activities – Large Scale*** **construction, operation, maintenance, repairs and upgrading (including any *structures* and associated *buildings*)**	
All Zones	**Activity status:** Permitted 1. Operation and maintenance of existing activities	**Activity status where compliance not achieved:** N/A
General Rural Zone, General Industrial Zone	**Activity status:** Discretionary 2. Upgrading of existing, or construction and operation of new activities	**Activity status where compliance not achieved:** N/A
All Other Zones	**Activity status:** Non-Complying	**Activity status where compliance not achieved:** N/A

[17] Consequential to amending Rule ENRG-R2
[18] Decision 38, paragraph 6.2.8

	3. Upgrading of existing, or construction and operation of new activities	
	Note: Noise associated with a wind farm is assessed and measured in accordance with NZS6808:2010 Acoustics - Wind farm noise. [19]	
ENRG-R3	***Renewable Electricity Generation* Investigations, including associated *structures* and *buildings***	
General Rural Zone	**Activity status:** Permitted Where: 1. ~~All Energy Standards~~ ENRG-S1, ENRG-S2, ENRG-S3 and ENRG-S4 are complied with~~.~~ and 2. Associated *structures* and *buildings* are temporary and removable.	**Activity status where compliance is not achieved:** Restricted Discretionary **Matters of discretion:** 1. The matters of discretion of any infringed standard.
All other Zones	**Activity status:** Discretionary	**Activity status where compliance not achieved:** N/A
ENRG-R4	***Non-renewable Electricity Generation***	
General Rural Zone	**Activity status:** Permitted Where: 1. The generators operate as a stand-alone power system on a *site* that does not have connection to the local electricity network; and 2. The generator only supplies activities on the *site* on which it is located.	**Activity status where compliance is not achieved:** Non-Complying
All other Zones	**Activity status:** Permitted Where: 1. The generator is used only:	**Activity status where compliance is not achieved:** Discretionary

[19] Decision 38, paragraph 3.2.8

	(a) during periods of electricity outages; or (b) for testing and the duration is no longer than 30 minutes.	

Standards

ENRG-S1	***Small scale wind turbines***	
General Rural, Rural Lifestyle, Settlement Zones and General & *Light Industrial* Zones	1. The maximum *height* above natural *ground level* to the tip of the blade is 20 metres above ground level. 2. The maximum number of turbines per *site* is: (a) one turbine for *sites* less than 20 hectares. (b) three turbines for *sites* which are more than 20 hectares. 3. The maximum rotor diameter is 7.2 metres. 4. The minimum *setback* of the wind turbine and associated mast/pole is the greater of: (a) 60 metres from a habitable *building*; or (b) 10 times the *height* of the *structure* from the *site boundaries*.	**Activity status where compliance is not achieved:** Restricted Discretionary **Matters of discretion:**[20] 1. The type, scale, form and location of the turbine and any adverse *effects* on the character, amenity, or indigenous biodiversity ~~Ngāi Tahu cultural values~~ of the locality or impacts on Ngāi Tahu cultural values ~~as~~ listed in MW -1.2 2. The ability to mitigate any adverse effects on visual amenity or ~~*effects*~~ on Ngāi Tahu cultural values listed in MW-1.2 through use of screening, planting and alternative design. 3. Adverse *noise* and vibration *effects*.
ENRG-S2	**Small scale hydro turbines**	
General Rural, Rural Lifestyle, Settlement Zones and General &	1. The maximum *gross floor area* of any associated *building* or *structure* is no more than 20 m^2 ~~square metres~~.	**Activity status where compliance is not achieved:** Restricted Discretionary **Matters of discretion:**

[20] Decision 38, paragraph 6.4.3

Light Industrial Zones		1. The type, scale, form and location of the turbine and any adverse *effects* on the character and *amenity values* of the locality. 2. The ability to mitigate any adverse visual amenity *effects* through use of screening, planting and alternative design. 3. Adverse *noise* and vibration *effects*. 4. Adverse *effects* on Ngāi Tahu cultural values ~~including those~~ listed in ~~MW2.3~~ MW-1.2.[21]
ENRG-S3	**Solar panels**	
All Zones	1. Solar panels erected on any roof of an existing *building* or *structure* must not exceed 250 millimetres in *height* above the highest part of the roof or *structure*.	**Activity status where compliance is not achieved:** Restricted Discretionary **Matters of discretion:** 1. Whether the solar panels are of type, scale and form that is appropriate for the location and character of the Zone. 2. The ability to mitigate adverse visual amenity *effects* through the use of screening, planting and alternative design.
ENRG-S4	**Exploratory wind ~~generation~~ monitoring masts[22]**	
General Rural Zone	1. The minimum *setback* from the *site boundary* is 200 metres or at least ~~10~~ 5 times the mast's *height whichever is the greater*. 2. The Maximum duration of activity is five years; 3. Removal of mast and all associated *structures* and equipment must be undertaken no later than two months after the cessation of wind monitoring activities.	**Activity status where compliance is not achieved:** Restricted Discretionary **Matters of discretion:** 1. The type, scale, form and location of the mast ~~turbine~~ and any adverse *effects* on the character, ~~and~~ *amenity* and indigenous biodiversity *values* of the locality. 2. The ability to mitigate any adverse visual amenity *effects* ~~through use of screening, planting and alternative~~ siting and design.

[21] Decision 38, paragraph 6.5.2
[22] Decision 38, paragraph 6.6.4

3. Adverse *noise* and vibration *effects*.
4. Adverse *effects* on Ngāi Tahu cultural values~~, including those~~ listed in ~~the MW2.3~~ MW-1.2[23]
5. *Operational need, functional need* or other technical considerations.

[23] Consequential to Decision 14