



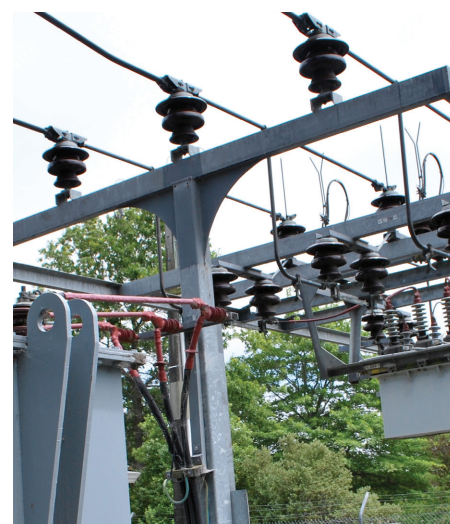
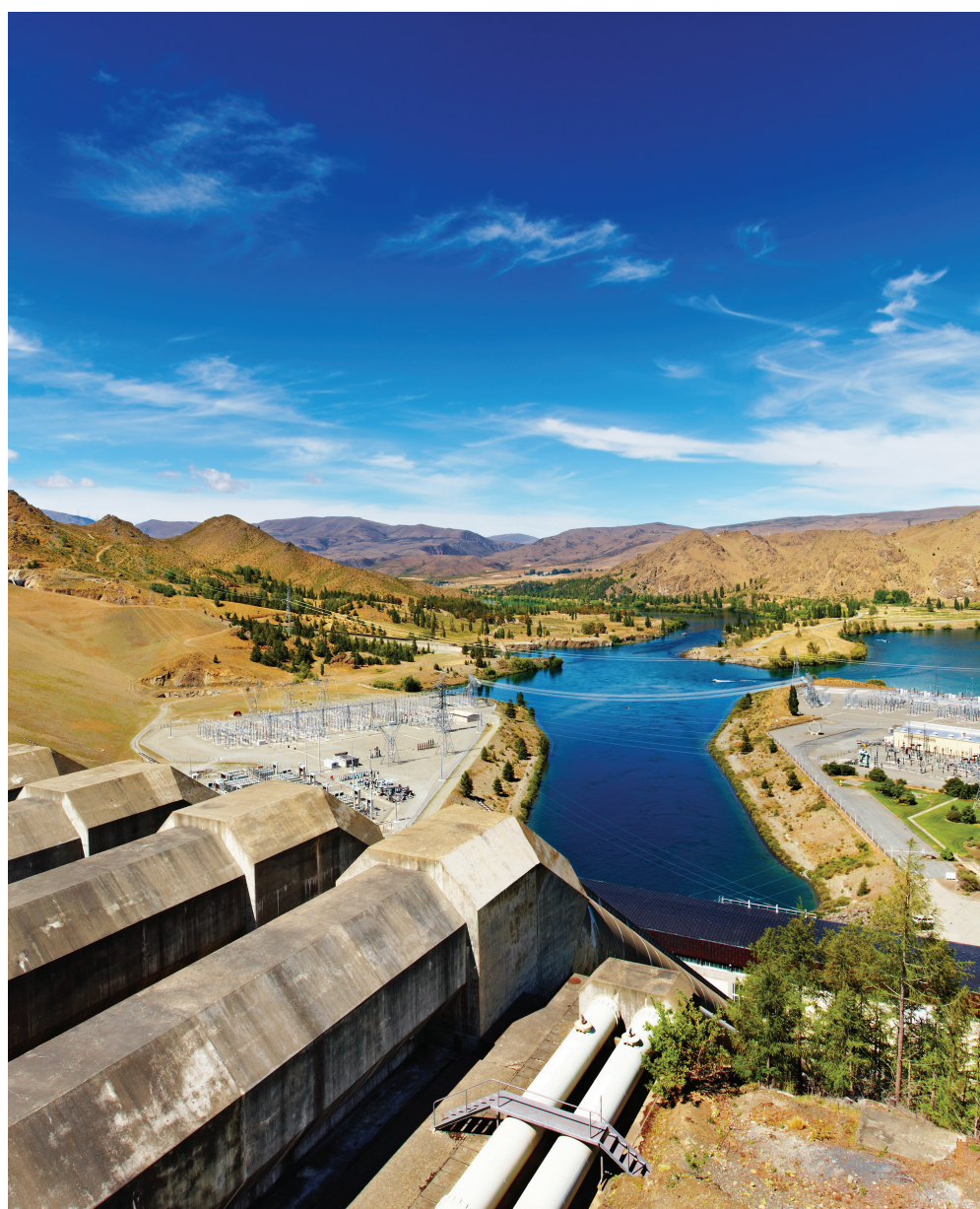
YOUR PLAN OUR FUTURE
TIMARU DISTRICT PLAN REVIEW
LAND USE PLAN

Timaru District Plan Review

Topic 8

Energy

Discussion Document, November 2016



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This document outlines the issues our district faces in relation to energy.

We welcome your feedback on this topic.

Damon Odey
Timaru District Council Mayor

1.0 Introduction

1.1 Purpose

Timaru District Council has commissioned this report to identify the 'issues' with how the Timaru District Plan 2005 manages energy. The report subsequently identifies the potential 'options' to address these issues and the strengths and weaknesses of each option.

The purpose of this report is to consider renewable and non-renewable electricity generation activities within the District. The Council has responsibilities in terms of recognising and promoting such energy infrastructure given the well-being benefits it provides to our community, as well as seeking to manage the impacts from the construction, operation and transmission of energy in the District.

Issues associated with utilities, including controlling undergrounding of electricity lines for dwellings is being dealt with in Topic 9: Utilities and Infrastructure Discussion Document.

The report is intended to inform and provide a basis for public consultation on this matter and to some degree stimulate debate. The report forms part of a suite of public consultation measures that may be used to inform a potential change to the District Plan.

1.2 Report Format

The remainder of the report has been set out as follows:

- Section 2** identifies and describes the issue.
- Section 3** summarises the relevant statutory matters.
- Section 4** briefly explains the current Timaru District Plan approach to energy.
- Section 5** discusses some potential options to deal with energy.

Acronyms used throughout the report include:

- National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG).
- National Policy Statement for Electricity Transmission 2008 (NPS-ET).

2.0 Issue Identification

Energy supply, consumption and transmission is an issue that is a shared responsibility between Timaru District Council, Canterbury Regional Council and Central Government. Energy supply, consumption and transmission has broad environmental implications, including on water use, air quality, transport, landscape, and land use.

Timaru District Council's responsibilities in terms of energy are confined to the land use implications of energy production and transmission. That is how and where energy infrastructure is located, its implications on adjacent land uses, and the impacts on adjacent land use of the infrastructure.

In addition, there are a number of aspects of urban and rural planning which can contribute positively or negatively to the use of energy resources, including urban form and design, the use of the roading network, and efficient building design.

The Resource Management Act 1991 and National Policy Statement for Renewable Electricity Generation 2008 provide a framework for all district plans to provide for renewable energy activities. As such having provisions that enable the sustainable use and development of renewable energy resources across the District, is critical to ensure that these regulatory requirements are met.

The three key issues for the District Plan relating to energy are as follows:

Issue 1

To what extent should the District Plan encourage renewable energy generation and the transmission of electricity to give effect to national and regional planning documents?

National and regional level planning documents provide clear direction for the Timaru District Plan to include provisions recognising and providing for the benefits and needs for renewable energy generation and transmission.

The District Plan does not give effect to national and regional planning documents. It needs to be considered how the District Plan will give effect to the following:

- Recognise and provide for the national, regional and local benefits of electricity transmission, including recognition and protection of transmission corridors (NPS-ET).
- Assist, as appropriate, in meeting the Government target of 90% of the country's electricity demand being met from renewable sources (NPS-REG).
- Recognise the benefits that electricity generation and supply provide for the well-being of the Timaru community, and for their health and safety (NPS-REG).
- Encourage the provision of small and community scale renewable energy generating facilities (NPS-REG).

Issue 2

Should the District Plan pro-actively recognise and provide for the specific requirements and adverse effects of energy generation and transmission infrastructure, in contrast to other land uses generally?

Energy generation and transmission infrastructure provides essential services to the community and businesses, enabling social, economic, cultural and health benefits. Such infrastructure can be visually dominant, generate substantial noise and earthworks, or traverse a number of sensitive environments (such as the coast, residential areas, or important landscapes or heritage areas).

The implications, and adverse environmental effects from energy generation and transmission can be variable. However often their location, scale and character is determined by the economic and operational necessities of their provision. Often, it is difficult or impossible to mitigate or avoid the adverse effects from such infrastructure. Once established, existing infrastructure needs to be protected from sensitive activities locating adjacent to them in a manner that would reduce their efficient and effective operation.

The adverse effects of energy generation and transmission infrastructure should be considered against their social and economic benefits to the people and community of the Timaru District. This would result in a planning approach where the benefits of energy generation and transmission infrastructure are recognised in terms of the extent to which their adverse effects on the environment are to be avoided or managed.

The current District Plan does not adequately recognise and provide for:

- The practical need to locate renewable electricity generation activities where the renewable energy resource is available.
- The management of the adverse environmental impacts from the generation and supply of energy generation (and differentiation between renewable and non-renewable energy sources), including effects from noise, on landscape and amenity values, and the coastal environment.
- The protection and management of energy generation and supply infrastructure, and electricity transmission corridors from sensitive activities (reverse sensitivity effects) (NPS-ET and NPS-REG).

3.0 Statutory Matters

Issue 3

To what extent should the District Plan regulate energy conservation and efficiency of energy use?

District Plans can promote and regulate for increased energy efficiency. Such methods can extend from broad urban form and growth decisions around the location of new urban areas, down to including rules requiring the provision of solar panels on new dwellings or the orientation of new buildings to face north.

The current District Plan does not adequately promote or require:

- Improvements in reducing energy use from transport.
- Building forms which reduce energy demand and minimise heating costs.

Resource Management Act 1991

The Resource Management Act 1991 requires local government bodies to achieve the integrated management of the effects of the use, development, or protection of land and associated natural physical resources of the District associated with energy efficiency, climate change, and renewable energy issues when preparing or changing plans.

National Policy Statement for Renewable Electricity Generation 2011 (NPS-REG)

The NPS-REG is a statement from central government that recognises the benefits of renewable electricity generation.

National Policy Statement on Electricity Transmission 2008 (NPS-ET)

The NPS-ET recognises the national significance of the electricity transmission network by facilitating its operation, maintenance, upgrading and development, while managing the adverse effects of the network and the adverse effects of other activities on the network.

The NPS-ET only applies to the 'national grid', which is the electricity transmission network operated by Transpower NZ Limited that conveys electricity from major generation sources to the local electricity transmission network. It does not apply to the local electricity network operated in the District by Alpine Energy Limited.

New Zealand Coastal Policy Statement 2010

The New Zealand Coastal Policy Statement 2010 provisions of relevance to energy state:

- The coastal environment contains renewable energy resources of significant potential and value, which can contribute to meeting the energy needs of future generations.
- The generation and transmission of electricity are important to the social, economic and cultural well-being of people and communities.
- There are activities that have a functional need to be located in the coastal marine area, and those activities should be provided for in appropriate places.

National Environmental Standard for Electricity Transmission Activities 2010 (NES-ET)

The NES-ET provides the rules and methods by which central government intends to achieve the objective and policies of the NPS-ET. It specifically applies "only to the operation, maintenance, upgrading, relocation, or removal of an existing transmission line." The NPS-ET requires that the Council provide for the transmission of electricity. District Plans therefore need to address new transmission structures and lines, and distribution and generation utilities.

4.0 Timaru District Plan

Canterbury Regional Policy Statement 2013

The Canterbury Regional Policy Statement 2013 recognises that significant energy issues relating to supply, affordability and emissions are addressed primarily at the national and international level, with policies aiming to:

- Provide for small and community scale renewable electricity generation.
- Recognise and provide for the benefits of renewable electricity generation facilities.
- Encourage a reliable and resilient electricity transmission network.
- Enable efficient, reliable and resilient electricity generation.

New Zealand Electrical Code of Practice for Electrical Safe Distances 34:2001 (NZECP)

The NZECP (34:2001) sets minimum safe electrical distance requirements for overhead electrical line installations and other works associated with the supply of electricity. Its minimum setback distances have been set primarily to protect persons and property from electrical hazards and are not intended to address the issues of maintenance, upgrading, access and reverse sensitivity that are addressed by the NPS-ET.

New Zealand Standard NZS6808: 1998

NZS 6808 (Acoustics – Wind Farm Noise) provides methods for the prediction, measurement and assessment of sound from wind turbines. The standard is directed at commercial or large scale wind farms and includes noise limits.

Electricity Act 1992

Section 57 of the Electricity Act 1992 essentially provides land owners rights to full compensation that are injuriously affected by an electricity operator or owner.

Water Conservation (Rangitata River) Order 2006

The Water Conservation Order sets out various constraints in respect of the use of the Rangitata River, including damming. It therefore significantly constrains the river's potential for hydro-electric power generation.

The current District Plan addresses the issue of high energy consumption and the need for improved energy efficiency and energy conservation, albeit at a very high level. The District Plan seeks to:

- Promote opportunities for greater energy efficiency and energy conservation throughout the District.
- Provide for and promote energy efficient settlement patterns.
- Take national and regional energy policies into account in policy development and decision making.
- Advocate and promote a transportation system designed and managed to encourage the efficient use of energy.

With some exceptions the District Plan permits electricity transmission facilities up to 110 kV and 100 MVA, while facilities over that deemed as discretionary activities. Although utilities services and public utilities are permitted in many instances, there is generally no exemption from compliance with various performances standards for electricity transmission facilities. Accordingly, most electricity transmission activities are classified as a discretionary activity. As no part of the District Plan permits renewable energy generation, these activities become classified as non-complying activities. This includes small scale renewable electricity generation activities such as solar panels.

The Services and Infrastructure Chapter of the District Plan provides for the operation, maintenance, upgrade and development of network utilities.

5.0 Options

The main options to manage energy are summarised as:

- Status quo (i.e. retain the current District Plan approach).
- Amend (i.e. current District Plan approach requires amendment to align it with current best practice and to give effect to national and regional planning documents).

These options are briefly described in turn below, followed by a brief assessment of their strengths and weaknesses. Please note other options exist for the identified issues that have not been reflected here to keep the document concise.

Option 1 – Status quo

The following strategic approach in the current District Plan is still relevant and should be included in the next District Plan:

- Providing for the maintenance, enhancement and operation of electricity infrastructure.

Strengths	<ul style="list-style-type: none"> ▪ Provides broad level support for improved energy efficiency and energy conservation.
Weaknesses	<ul style="list-style-type: none"> ▪ The District Plan does not achieve (or give effect to) the NPS-ET, the NPS-REG or the Regional Policy Statement, and therefore the District Plan does not provide appropriate direction for the establishment of new renewable energy generation, and management of electricity transmission infrastructure. ▪ The District Plan does not provide any protection for renewable energy generation or existing transmission corridors from other new activities locating adjacent to such infrastructure. Without such protection the more sensitive activities could reduce the safety or efficiency of renewable energy generation or existing transmission corridors. ▪ There is limited guidance or direction as to improved energy efficiency and energy conservation.



Option 2 – Amend – Giving effect to national and regional planning documents / pro-actively recognising environmental effects from energy generation and transmission.

The intent of the strategic approach in the current District Plan is still valid but the approach requires amendment to align it with current best practice and to give effect to national and regional planning documents as follows:

- Amend provisions to recognise the practical need to locate renewable energy activities where the renewable energy resource is available.
- Include provisions to recognise and provide for regional and national electricity transmission (including transmission corridors).
- Amend provisions to manage reverse sensitivity effects from sensitive activities in relation to new and existing energy generation activities, and electricity transmission corridors.
- Amend provisions to address the adverse environmental impacts from the generation and supply of energy generation (and differentiation between renewable and non-renewable energy sources), including effects from noise, on landscape and amenity values, and the coastal environment.
- Include provisions to acknowledge the regional and national benefits of renewable energy supply, and to provide for such activities.
- Include provisions to encourage the provision of small and community scale renewable energy generating facilities.

<p>Strengths</p>	<ul style="list-style-type: none"> ▪ Gives effect to the statutory directions contained in NPS-ET, NPS-REG and Regional Policy Statement. Providing for these matters in a comprehensive and focused manner will be more effective in achieving the outcomes anticipated by the Resource Management Act. ▪ Provides greater clarity regarding the desired outcomes for energy generation within the District. ▪ Improved certainty to users of the District Plan as to the activity status of energy generation activities. ▪ Encourages small and community scale renewable electricity generation assisting (in a relative sense) with the Government’s 90% renewable energy source target; energy conservation, and energy efficient design. ▪ Provides greater recognition of and protection to the operational requirements of energy infrastructure and utilities, including the need for renewable energy generation activities to be located where the resource is available, and electricity transmission corridors to be efficiently located. ▪ Recognise the strategic importance of the operational requirements and practical constraints of energy infrastructure and utilities (including both energy generation and electricity transmission infrastructure) to the District, and their contribution to the well-being of the Timaru community and their energy needs. ▪ Ensuring the appropriate management of the adverse environmental effects from energy generation and electricity transmission, including recognition that in some instances this may restrict sensitive activities from locating within close proximity to this infrastructure.
<p>Weaknesses</p>	<ul style="list-style-type: none"> ▪ Financial costs associated with going through the District Plan Review process. ▪ Requires parties to become familiar with the new provisions. ▪ Land values could be affected by the requirement for greater setbacks from electricity transmission corridors.

Option 3 – Amend – Energy conservation

The intent of the strategic approach in the current District Plan is still valid but the approach requires amendment to align it with current best practice without introducing prescriptive development controls or inappropriate transaction costs as follows:

- Amend provisions to promote building forms which reduce energy demand and minimise heating costs.
- Amend provisions to promote improvements in reducing energy use from transport.

Strengths	<ul style="list-style-type: none">▪ Improved alignment between the energy provisions to the other chapters of the District Plan for the encouragement of energy efficient building design, and reducing energy use for transport.
Weaknesses	<ul style="list-style-type: none">▪ Financial costs associated with going through the District Plan Review process.▪ Requires parties to become familiar with the new provisions.



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