

Review of the Canterbury Regional Policy Statement: Energy

Purpose

The purpose of this paper is to discuss options on the approach to be used to review the provisions within the Canterbury Regional Policy Statement (CRPS) for energy (found principally in Chapter 14). The paper brings together the current thinking on the review of these CRPS provisions, outlining the options and preliminary approaches to be used in the review. Views are being sought on possible policy approaches prior to undertaking detailed analysis or drafting specific wording.

Background

Environment Canterbury has begun its review of the CRPS. The review must consider all the provisions in the CRPS, decide whether to retain, amend, or delete existing provisions, or add new provisions. The statutory context for the review of the energy provisions found in Chapter 14 is summarised in Appendix 1.

The 1998 CRPS included a Chapter dealing with energy as a significant resource management issue for the region. The rationale for including this chapter in 1998 was that, in addition to dealing with the adverse effects of carbon based fuels, the regional council is concerned with enabling energy to be produced for the needs of future generations. This involved encouraging the use of renewable sources as well as promoting energy conservation and efficiency. The 1998 CRPS recognised the connection (particularly within the Canterbury region) between water management and energy generation¹. There is an inextricable link between energy and transport and this too, was given reference in the 1998 CRPS.

Canterbury is a major producer of renewable energy within New Zealand, principally due to the Waitaki electricity generation scheme. However the use of non-renewable and carbon based energy continues to increase within the region. The main driver of this increase is the transport sector, whose energy consumption has increased by an average of 4% per annum since 1982, and in 2004 accounted for 57% of the regions energy consumption².

Scoping of the CRPS review found that energy remains a regionally significant resource management issue. The legislative and policy context in which we address energy has changed in the past decade and some of the issues surrounding energy, such as the finite nature of fossil fuels, have received a much higher profile.

A 2004 amendment to the Resource Management Act 1991 (RMA), required that the benefits to be derived from the use and development of renewable energy is given particular regard to in achieving the purpose of the Act³.

A further 2004 amendment to the RMA required that when Regional Councils must not have regard to the effects of a discharge to air of greenhouse gasses on climate change, except to the extent that the use and development of renewable energy enables a reduction in the discharge into air of greenhouse gasses⁴.

The 2004 changes to the RMA indicate a message from parliament that the use and development of renewable energy opportunities should be a consideration for local authorities.

The 2004 amendments to the RMA were reinforced by the New Zealand Energy Strategy to 2050 and the New Zealand Energy Efficiency and Conservation Strategy, both released by central government in 2007. In the forward to the New Zealand Energy Strategy to 2050, the Minister for the Environment the Honourable David Parker said the following:

The New Zealand Energy Strategy, along with the New Zealand Energy Efficiency and Conservation Strategy, will take sustainability to new levels, by introducing initiatives that champion renewable energy across power generation and transport, energy efficiency at home and at work, and the development and deployment of sustainable energy technologies⁵.

¹ Canterbury Regional Policy Statement - 1998

² Regional Energy Survey - 2004

³ Resource Management Act 1991 – Section 7 (j)

⁴ Resource Management Act 1991 – Section 70A

⁵ New Zealand Energy Strategy to 2050 – Powering Our Future - 2007

A 2005 amendment to the RMA, gave Regional Councils the function of the strategic integration of infrastructure with land use through objectives, policies and methods⁶.

A National Policy Statement on Electricity Transmission is currently proposed that is aimed at ensuring the efficient and secure supply of electricity by recognising electricity as a matter of national significance, and by elevating the status of electricity transmission under the RMA.

A National Environmental Standard (NES) has also recently been proposed which aims to secure existing national infrastructure against reverse sensitivity and activities occurring around transmission lines. In addition the NES provides for consistency in the management of transmission lines by providing nationally consistent land use rules for upgrading and maintenance work.

In 2006, the Energy Efficiency and Conservation Authority (EECA) announced that they will replace the National Energy Efficiency and Conservation Strategy (NEECS) 2001, pursuant to the Energy Efficiency and Conservation Act 2000. This review is not yet complete, however, a Situation Assessment Report identified that the strategy had generally been effective, but the action plans required strengthening⁷.

Environment Canterbury adopted a Regional Energy Strategy (RES) in 2004 and have recently adopted a draft revised RES. The RES sets direction for ECans energy related functions.

The Building Act 1991 was repealed and replaced by the Building Act 2004 which required higher standards of insulation and energy efficiency within buildings. Amendments are still being made to the Building Act to increase energy efficiency in New Zealand buildings.

Contextual changes other than legislative or policy related changes have also occurred. Transpower (a state owned enterprise) runs the national grid of electricity infrastructure, which conveys electricity from generation facilities, to local substations. The national grid is vital strategic infrastructure for New Zealand as a whole. Transpower are currently undertaking maintenance and upgrade projects across the national grid.

Finally, there is continuing pressure from energy suppliers looking for opportunities to increase energy supply.

Current CRPS provisions and effectiveness of these

The Energy chapter contains three policies. Policy 1 promotes use of energy from renewable sources (consistent with sustainable management) while Policy 2 promotes energy conservation and efficient energy use. Policy 3 is about enabling existing hydro generation infrastructure to be maintained, upgraded and enhanced.

With regard to anticipated environmental outcomes, it is noted that there have been some instances where these outcomes have been achieved. For example, the Greater Christchurch Urban Development Strategy has included provision for better use of transport routes and placing population growth nearer to established public transport routes and there are trials being undertaken running the Christchurch public transport fleet on BioDiesel.

Despite there being some achievement of environmental outcomes, trends still show that the CRPS energy provisions have largely been ineffective. The drivers for increased energy consumption include dispersed settlement patterns, more vehicles on the roads, larger houses being built, more appliances being used and greater production and consumption across many industries.

The anticipated environmental result regarding more efficient use of energy is likely not to have been achieved given the increase in energy consumption in the transport sector. However, the EECA has determined that nationally there have been small improvements in energy efficiency from 2001-2003. In addition, the Clean Heat Program has resulted in some 10,600 homes in Christchurch (end of the 2006 – 2007 financial year) being converted to more energy efficient heating systems.

While biofuels are increasingly being used in the transport sector, the trend of increasing use of fossil fuels continues. The anticipated substitution of fossil fuels with more sustainable energy sources has not occurred to such a degree that it could be considered the policies have been effective.

Regarding adverse effects of energy production and use, it unlikely this has been achieved in Canterbury. While the effects of energy production over the last decade are unknown, increasing CO₂ emissions indicate that adverse effects from energy use have increased. It is noted however, that there have been some

⁶ Resource Management Act 1991 – Section 30 (1)(gb)

⁷ Situation Assessment Report on the National Energy Efficiency and Conservation Strategy - 2006

improvements in overall air quality, largely due to changes in home heating and improvements in engine technology.

Regarding the anticipated provision of energy from the most efficient and sustainable sources, the increased use of fossil fuels, again in the transport sector, indicate that this result has not been achieved.

Feedback from local government stakeholders has raised concerns that when dealing with energy, transport tends to be missing from the discussion⁸. The stakeholders note that the way “energy” is expressed is more concerned with electricity than energy. While the CRPS Energy chapter does discuss transport, the inclusion in the CRPS of a separate Transport chapter indicates that energy is a minor issue in considering transport. It is considered that the two issues are inextricably linked and may benefit in terms of effectiveness and efficiency if the RPS were to address the two issues together.

Policy options and discussion

Energy is a significant resource management issue for Canterbury and as such, should be addressed in the CRPS. While there are obvious issues that apply across the nation (security of supply for both oil and electricity, emissions from the use of carbon based fuels, the national grid, a poor housing stock in terms of energy efficiency etc), Canterbury has energy issues which are peculiar to the region.

The Canterbury region contains one of the nation’s most extensive hydro electricity schemes (the Waitaki hydro scheme). The scheme consists of eight generation stations positioned below seven lakes on the Waitaki River. This scheme generates a significant proportion of the nation’s electricity supply and much of the electricity generated is transmitted outside of the region, via transmission lines that are often positioned in areas of outstanding natural landscapes.

The change in rural land-use throughout the region has resulted in an increase in energy demand in the rural sector. Water efficient irrigation is energy intensive when water must be pumped from aquifers or river or storage areas a long distance from the place in which the water is applied. As such, there is a balance between water and energy efficiency.

The revised RES states that locally generated and distributed energy will play a major role in future Canterbury’s energy supply. It is considered that locally generated and distributed energy systems are efficient and represent a method of reducing effects caused by the transmission of energy by reducing line losses and reducing requirements for transmission grid upgrades. The Canterbury Regional Energy Forum⁹ is exploring alternative regional solutions to meeting energy demands.

The options identified below have advantages and disadvantages. Options available include:

1. Current CRPS provisions (status quo) – i.e. aim to reduce Canterbury’s dependence on non-sustainable energy sources by promoting use of energy from renewable sources and promoting energy conservation and efficiency and enabling the existing hydro electricity structure to be maintained and enhanced; and addressing the adverse global and regional environmental effects that result from the production and use of energy. It is questionable whether this would be sufficient given the legislative changes and the continuing trends towards greater dependence on unsustainable energy supplies (i.e. fossil fuels), and greater energy demand. This option is mutually exclusive with the following options.
2. Provide for the “Canterbury specific” issues identified above (i.e. existing hydro, transmission through areas of outstanding landscape, the relationship between energy consumption and water consumption in the rural sector) This option could be taken alone or combined with options 3, 4 or 5.
3. Reflect the Regional Energy Strategy in the RPS provisions which include: investigation into issues surrounding transmission; working towards retrofitting existing homes with energy efficient features; working towards energy efficient housing and subdivision design; working towards achieving a more resilient energy supply for the Region; supporting technological development of renewable energy resources such as biofuels and biomass; educating the community about energy efficiency and working towards demand reduction; recognising a need to adapt to climate change and reducing greenhouse gas emissions: and developing (ECan) in house measures to support good energy

⁸ *Our Changing Environment: An evaluation of the 1998 Canterbury Regional Policy Statement* – Environment Canterbury 2007

⁹ Comprising Key stakeholders including ECan, Meridian Energy, Canterbury Employers Chamber of Commerce, New Zealand Centre for Advanced Engineering, Transpower and Orion

practice throughout the region. It should be considered if this will be too detailed for the CRPS. This option could be taken alone or combined with options 2, 4 and 5.

4. Remove the energy chapter and provide for energy efficient subdivision design (including transport efficiency provisions), and security for existing infrastructure, within the Settlement and Built Environment and Transport Chapter – this would better align the issue of energy efficiency and sustainability with the causes of inefficiencies and unsustainable consumption. This option could be taken alone or combined with options 2, 3 or 5.
5. Specifically provide for energy generation facilities and transmission infrastructure, either existing national systems and/or local generation and distribution systems. We would need to be careful to weigh the benefits and costs of this option, and it is important to determine how we would be providing for these facilities; i.e. would we be making a call that provision for energy transmission and generation (and particularly renewable energy) is more important than effects on the local environment, or would we be seeking to identify areas where such facilities are appropriate and areas where they are not? This option would need to be taken in conjunction with at least one of options 2, 3 or 4.

Recommendations

The status quo has proven to be ineffective and it is not recommended that this policy option is taken.

It is considered that Canterbury specific issues should be addressed in the CRPS.

The Regional Energy Strategy provides good strategic direction for the region. It is not considered however that this level of strategic direction needs to be repeated within the Regional Policy Statement.

It is considered that removing the energy chapter and dealing with energy alongside settlement and transport could better align the issues and provide for better integration of natural and physical resources. It is noted that the Canterbury Regional Council Regional Planning Committee support the retention of an energy chapter as it is considered removing the Chapter will detract from the prominence of the resource management issues surrounding energy in the Region.

It is recommended that the RPS continues to provide for the maintenance and enhancement of existing generation and transmission facilities.

With regard to new energy generation and transmission, aspects of these will be covered within other parts of the CRPS (for example, water and landscape). Decisions on whether national infrastructure is more or less important than localised environmental impacts may be regarded as an issue for Central Government. A decision is needed as to whether the CRPS will provide guidance on this issue.

Appendix 1: Statutory context

Resource Management Act 1991 (RMA)

Section 7 of the RMA sets out matters to have particular regard to in achieving the purpose of the Act. Included in these matters is 7(j) which states:

7(j) the benefits to be derived from the use and development of renewable energy.

Section 59 of the Resource Management Act 1991 (RMA) sets out the purpose of a Regional Policy Statement as follows:

59 The purpose of a regional policy statement is to achieve the purpose of the Act by providing an overview of the resource management issues of the region and policies and methods to achieve integrated management of the natural and physical resource of the region.

It is considered that resource management issues of regional significance arise with relation to the management of energy resources.

Section 70 of the RMA sets out restrictions on rules relating to the discharge of greenhouse gasses. Section 70A states:

70A Despite section 68(3), when making a rule to control the discharge into air of greenhouse gasses under its functions under Section 30(1)(d)(iv) or (f), a regional council must not have regard to the effects of such a discharge on climate change, except to the extent that the use and development of renewable energy enables a reduction in the discharge into air of greenhouse gasses, either –

- (a) in absolute terms; or*
- (b) relative to the use and development of non-renewable energy.*

Section 30 of the RMA sets out functions of regional councils in giving effect to the RMA. Those functions relevant to energy are set out below:

Section 30(1)(a) gives regional councils the function of establishing, implementing and reviewing the objectives, policies and methods to achieve integrated management of the natural and physical resources of the region.

Section 30(1)(b) gives regional councils the function of preparing objectives and policies in relation to any actual or potential effects of the use, development or protection of land which are of regional significance.

Section 30(1)(gb) gives regional councils the function of the strategic integration of infrastructure with land use through objectives, policies and methods

Section 31 of the RMA sets out the functions of territorial authorities (TAs) in giving effect to the RMA. Those functions relevant to energy are set out below:

Section 31(1)(a) gives TAs the function of establishing, implementing and reviewing objectives, policies and methods to achieve integrated management of the effects of the use, development, or protection of land and associated natural and physical resources of the district.

APPENDIX 2 – Review of resource management issues

Issue	Relevance	Significance	Recommendation
<p><u>Chpt 14, Issue 1</u></p> <p><i>The regions dependence on non-sustainable energy sources, and fossil fuels in particular, to meet present and future needs. These energy sources include those that are non-sustainable because of the adverse global and regional environmental effects that result from their production and use.</i></p>	<p>This issue is still relevant in part. The region's dependence on non-sustainable energy sources continues to increase and while present needs can be satisfied (although inefficiently) it is unlikely this will be able to continue into the future.</p> <p>Global adverse effects from the production and use of energy is no longer to be a regionally significant issue because central government has undertaken to address these issues at a national level.</p> <p>The localised adverse effects from the production and use of energy continue to be a regionally significant issue.</p>	<p>Remains significant in part.</p>	<p>The issue is updated to reflect that global effects are no longer a regionally significant issue.</p>

APPENDIX 3 - Analysis of policy approaches: Energy

Option 1: Current CRPS provisions (status quo)

	For	Against
Purpose of the RMA	<ul style="list-style-type: none"> • Gives effect to the purpose of the Act 	
Issue resolution		<ul style="list-style-type: none"> • Despite policies being targeted at reducing the regions dependence on fossil fuels, the status quo provisions have proven inefficient in resolving the issue
Integrated management		<ul style="list-style-type: none"> • Does not provide for the integrated management of energy as there is currently a split between energy issues and the causes of those issues (i.e. transport and settlement design).
Carrying out functions		<ul style="list-style-type: none"> • Does not meet Environment Canterbury's functions, particularly with regard to integrated management of strategic infrastructure with land use. Also the current provisions cover adverse effects that are global issues – this is no longer a Regional Council function.
Consultation views		
OVERVIEW	This approach does not contribute to the integrated management of strategic infrastructure with land use.	

Option 2: Provide for the “Canterbury specific” issues

	For	Against
Purpose of the RMA		<ul style="list-style-type: none"> Does not go far enough to achieve the purpose of the Act. It is considered that the “Canterbury specific” issues do not cover the full range of resource management issues needing to be addressed to promote the sustainable management of natural and physical resources.
Issue resolution		<ul style="list-style-type: none"> Does not assist in resolving the full issue
Integrated management	<ul style="list-style-type: none"> This option will assist in achieving the integrated management of strategic infrastructure with land use. 	
Carrying out functions		<ul style="list-style-type: none"> Will not achieve ECan’s or TAs functions
Consultation views		
OVERVIEW	This approach will not achieve the purpose of the Act.	

Option 3: Reflect the Regional Energy Strategy in the RPS

	For	Against
Purpose of the RMA	<ul style="list-style-type: none"> Gives effect to the purpose of the Act 	
Issue resolution	<ul style="list-style-type: none"> Will assist in resolving the issue 	<ul style="list-style-type: none"> This option would provide detailed policy and direction that is likely to go further than resolving the resource management issue.
Integrated management	<ul style="list-style-type: none"> This option will allow for the integrated management of strategic infrastructure with land use. 	
Carrying out functions	<ul style="list-style-type: none"> This option will assist in carrying out ECan’s and TAs functions. 	<ul style="list-style-type: none"> The option is likely to go beyond ECan and TA functions.
Consultation views		
OVERVIEW	While this approach could be effective, it would be inefficient as policy provisions would become overly detailed for the CRPS	

Option 4: Remove the energy chapter and provide for energy efficient subdivision design (including transport efficiency provisions), and security for existing infrastructure, within the Settlement and Built Environment and Transport Chapter

	For	Against
Purpose of the RMA	<ul style="list-style-type: none"> Gives effect to the purpose of the Act 	
Issue resolution	<ul style="list-style-type: none"> This option will be more effective than the status quo at resolving the issue – there is scope within this option to cover additional issues such as promoting renewable energy generation. 	
Integrated management	<ul style="list-style-type: none"> This option will ensure the integrated management of strategic infrastructure and land use 	
Carrying out functions	<ul style="list-style-type: none"> Achieves Environment Canterbury's functions and assists TAs in achieving their functions 	
Consultation views		
OVERVIEW	This approach is effective and efficient.	

Option 5: Provide for energy generation facilities and transmission infrastructure

	For	Against
Purpose of the RMA	<ul style="list-style-type: none"> Gives effect to the purpose of the Act 	
Issue resolution	<ul style="list-style-type: none"> Will resolve part of the issue (relating to the adverse effects of energy production). 	<ul style="list-style-type: none"> Does not resolve sustainability of energy use and supply issue.
Integrated management	<ul style="list-style-type: none"> Could assist in achieving integrated management 	
Carrying out functions	<ul style="list-style-type: none"> Achieves Environment Canterbury's functions and assists TAs in achieving their functions 	
Consultation views		
OVERVIEW	This approach would not resolve all of the resource management issue.	

