



Energy Efficiency and
Conservation Authority
Te Tari Tiaki Pūngao

8 June 2009

Freepost 118112
Proposed Regional Policy Statement
Greater Wellington Regional Council
PO Box 11646
Wellington 6142
Attention: Tim Porteous

Dear Tim,

Submission: Proposed Regional Policy Statement for the Wellington Region

The Energy Efficiency and Conservation Authority (EECA) welcomes the opportunity to comment on the proposed Wellington Regional Policy Statement. The attached submission seeks to strengthen the proposed policy provisions to promote energy efficiency and renewable energy objectives and is consistent with EECA's submission on the draft regional policy statement (Submission No 40).

EECA is a Crown Entity established under the Energy Efficiency and Conservation Act 2000. The Authority is charged with promoting energy efficiency, energy conservation and renewable energy in New Zealand

EECA understands that the regional policy statement has one overriding purpose: the sustainable management of the natural and physical resources of the region. In this regard, it provides a valuable opportunity to adopt strong objectives, policies and methods to positively promote energy efficiency and the development of renewable energy in the Wellington region. As such, EECA proposes a number of amendments to strengthen these provisions and in particular, supports the identification of energy, infrastructure and waste as significant issues in the region.

Yours sincerely

A handwritten signature in blue ink that reads 'Fiona Weightman'.

Fiona Weightman
Manager, Energy Supply

Improving energy choices

SUBMISSION ON THE PORPOSED REGIONAL POLICY STATEMENT FOR THE WELLINGTON REGION

To: **Greater Wellington Regional Council** (the Council)

Submitter: The Energy Efficiency and Conservation Authority (EECA)

EECA is a Crown entity established by way of the Energy Efficiency and Conservation Act 2000. Its statutory mandate is to encourage, promote and support energy efficiency, conservation and the use of renewable energy sources.

Address: The Energy Efficiency and Conservation Authority
PO Box 388
Wellington
Attn: Rose Feary

1. This submission relates to the following:

Proposed Regional Policy Statement for the Wellington region.

2. EECA's reasons for making this submission are as follows:

New Zealand's Energy Context

New Zealand's energy demand is predicted to continue to grow and over the longer term, ongoing economic growth will continue to place upward pressure on demand. As a result, it is essential that energy efficiency improves and energy consumption patterns change and that New Zealand has the ability to meet demand growth.

In an average hydrological year, New Zealand generates about 70% of its electricity from renewable energy resources, with the balance being made up by fossil-fuelled thermal generation as required. Most of New Zealand's renewable generation comes from hydro and geothermal with smaller but increasing amounts from wind. Electricity generated from biogas, waste heat and wood (including cogeneration) also make small but valuable contributions and emerging technologies such as marine energy and solar photovoltaics are becoming more significant and will also have a role to play in the future.

Despite this, over the past few decades a large proportion of demand growth has been met using fossil-fuelled power stations. This has resulted in a long term decline in the proportion of electricity generated from renewable sources. This is in contrast to many OECD countries which have seen marked increases in the proportion of renewable generation. If we continue to build a mixture of fossil-fuelled and renewably-sourced electricity generation, as we have done over the last 25 years, the rate of increase of New Zealand's electricity related greenhouse gas emissions will continue to escalate.

It is now imperative that New Zealand improves the efficiency of energy end use while increasing the proportion of energy generated from renewable energy of various scales including generating electricity utilising small-scale distributed generation (including wind, small hydro, biomass and landfill gas) and domestic scale energy generation (particularly from solar energy). Renewable energy developments are vitally important for the production and delivery of electricity in an efficient, secure, affordable and environmentally sustainable manner.

Renewable Electricity Target

New Zealand has a target that 90 percent of New Zealand's electricity will be generated from renewable sources by 2025 provided it does not compromise security of supply. Achievement of the target should lead to increased economic productivity in the energy sector by encouraging new industry and business development, and creating a more diversified electricity supply portfolio. It will also help to return New Zealand's greenhouse gas emissions back to 1990 levels and thereby assist New Zealand to meet its obligations under the Kyoto Protocol and future international agreements.

3. Resource Management Act

The Resource Management (Energy and Climate Change) Amendment Act 2004, introduced three new matters into section 7 (Other Matters) of Part II of the RMA, requiring all persons exercising functions and powers under the RMA to have particular regard to:

- (ba) the efficiency of the end use of energy
- (i) the effects of climate change
- (j) the benefits to be derived from the use and development of renewable energy

The Benefits of Renewable Energy

The law relating to section 7(j) matters has been refined to some extent by the Environment Court in its decision on *Genesis Power Ltd and The Energy Efficiency and Conservation Authority v Franklin District Council A148/2005*. This decision related to a resource consent application to establish a wind farm on the Awhitu Peninsula, south of Auckland. The Court identified the benefits to be derived from renewable energy to include:

- security of supply;
- reduction in greenhouse gas emissions;
- reduction in dependence on the national grid;
- reduction in transmission losses;
- reliability;
- development benefits; and
- contribution to the renewable energy target.

The Environment Court decision on *Upland Landscape Protection Society Incorporated v Clutha District Council C85/2008* further clarified the benefits stating that the benefits of the wind farm include that:

- it does not involve permanent long term alteration of the environment;
- it does not utilise any finite resource, other than the site itself;
- it avoids emissions of substances such as CO₂ which may cause adverse effects on the environment and/or be subject to constraint in terms of international or national obligations;
- it supplies a demonstrable public need for power;
- it involves minimal displacement of other productive uses of the land;
- it is subject to limited exposure to supply disruptions or prime fluctuations; and
- it uses the wind resource without affecting that resource in any meaningful way.

Proposed National Policy Statement on Renewable Electricity

It is expected that the emerging National Policy Statement (NPS) on Renewable Electricity¹ will provide national direction and additional context for section 7(j) matters complementing and strengthening the government's existing energy and climate change policy framework. It sets an overall objective: *"To recognise the national significance of renewable electricity generation by promoting the development, upgrading, maintenance and operation of new and existing renewable electricity generation activities, such that 90 per cent of New Zealand's electricity will be generated from renewable sources by 2025 (based on delivered electricity in an average hydrological year)".* The proposed national policy statement was notified in September 2008. It is expected to be Gazetted in October 2009.

Policy 1 of the proposed NPS indicates that the benefits of renewable electricity generation activities, at any scale, are of national significance and that decision-makers must have particular regard to the national, regional and local benefits relevant to renewable electricity generation activities.

4. Wellington Regional Renewable Energy Potential

An assessment commissioned by EECA indicates that the Wellington region has very good potential for the development of renewable energy². The findings of the assessment have been previously presented to the Council and have been drawn on in the formulation of the proposed regional policy statement. For the Wellington Region, this renewable potential comprises:

¹ <http://www.mfe.govt.nz/publications/rma/nps-renewable-electricity-generation/proposed-nps-for-renewable-electricity-generation.pdf>

² Renewable Energy Assessment Wellington Region 14 August 2006 - www.eeca.govt.nz/eeca-library/renewable-energy/report/regional-renewable-energy-assessment-wellington-07.pdf

- Approximately 500-700 megawatts (MW) of wind capacity depending on the degree of acceptance of adverse effects.
- Wave energy in the order of 1,000MW, assuming that technologies become economic over the next ten years.
- Around 30 million litres of ethanol per year for transport fuel from grain crops currently grown in the region. More than 20 million litres per year of ethanol or 90 GWh/year of electrical energy from woody biomass derived from low-grade forestry.
- Remaining hydro potential of about 38 MW, in mini and small-scale projects in areas outside the Department of Conservation land and Native Forest areas.
- Significant potential for solar thermal hot water systems, considerably less for solar photovoltaic.

A more detailed assessment of the marine energy resource in New Zealand indicates that the Wellington region has exceptional tidal/ocean current resources (with the potential for over 13,000 MW by some authors)³. The report indicates that there are three locations in New Zealand with an open-coast tidal resource: Cook Strait, Cape Reinga and the waters surrounding Stewart Island (refer to Figure 1 attached to this submission). The mean annual Cook Strait resource is as high as 5,000 Wm⁻² (mean power of the resource), while the resource in Foveaux Strait adjacent to Bluff is approximately 300 Wm⁻².

5. Public Support for Renewable Energy

A public perceptions survey of attitudes towards energy issues undertaken between October and December 2008 indicated that New Zealanders are concerned about energy efficiency and climate change issues and where their energy comes from. New Zealanders overwhelmingly supported renewable energy generation. The survey reveals that New Zealanders consider where their energy comes from as being important enough to personally do something about or think about what they could do (i.e. become actively involved) and consider that where energy comes from will have an impact on future generations.

6. EECA's Submission

EECA supports the proposed regional policy statement and its focus on regionally significant energy issues. EECA's submission seeks to ensure that sufficient regard is had to: the efficiency of the end use of energy; the effects of climate change; and the benefits to be derived from the use and development of renewable energy recognising the nationally significant renewable energy potential in the Wellington region. This is in accord with Part II of the RMA, the government's

³ *Development of Marine Energy in New Zealand*, Power Projects Limited, 30 June 2008, Part 7: Greater Wellington Region Case Study www.eeca.govt.nz/sites/all/files/marine-energy-in-nz-jun-08.pdf. This report presents a review the current state of domestic and international marine energy technologies and their development and deployment. New wave and tidal/ocean current energy resource assessments have been undertaken by integrating new mapping of the resources with the performance characteristics of modeled wave and tidal/ocean current devices to derive the potential electricity generation from device arrays at promising sites.

energy policy objectives including the renewable electricity target and public opinion that the majority of New Zealanders overwhelmingly support renewable energy generation over fossil fuelled generation.

EECA's specific submission is detailed below.

CHAPTER 1: INTRODUCTION

EECA supports Chapter 1 of the proposed regional policy statement and requires amendments to reflect additional matters it considers relevant to renewable energy and energy efficiency imperatives.

Section 1.2: The purpose and content of the Regional Policy Statement

Relief Sought: Amend Chapter 1, section 1.2 to include reference to RMA section 31.

Reasons: The Council's functions under section 30 of the RMA are particularly relevant to the purpose and content of the regional policy statement. EECA is particularly concerned with the Council's function pursuant to section 30(1)(gb) *"the strategic integration of infrastructure with land use through objectives, policies and methods"*.

Relief Sought: Support, requiring the above amendments.

Section 1.3: The resource management policy and planning framework

Relief Sought: Retain reference to the New Zealand Energy Strategy, New Zealand Energy Efficiency and Conservation Strategy and the Renewable Energy Assessment for the Wellington Region, and amend Chapter 1, section 1.3 as follows (bold, underlined):

*"Similarly, policies and methods within this Regional Policy Statement that relate to infrastructure and energy are drawn from the National Policy Statement on Electricity Transmission **and the Proposed National Policy on Renewable Electricity Generation.**"*

"There are a number of other national strategies promulgated by central government and its agencies that are not prepared under the Resource Management Act, and have no statutory bearing on the content of a regional policy statement."

“Documents which informed this Regional Policy Statement include the New Zealand Energy Strategy to 2050 (2007) and,—the New Zealand Energy Efficiency and Conservation Strategy (2007) including the target of 90% renewable electricity by 2025, ...”

Reasons:

The government’s energy framework relating to renewable energy and climate change provide context to RMA section 7(j) and are relevant to the regional policy statement.

It is noted that the New Zealand Energy Strategy is under review and being refocused on security of supply, affordability, and environmental responsibility, with the overriding goal of maximising economic growth. The New Zealand Energy Efficiency and Conservation Strategy will also be updated. These documents will remain relevant and the New Zealand Energy Efficiency and Conservation Strategy will continue to have a statutory bearing on the regional policy statement (RMA s61(2)(a)(i)).

It is expected that the emerging National Policy Statement (NPS) on Renewable Electricity will provide national direction and additional context for section 7(j) matters. It is expected to be gazetted in October 2009.

Relief Sought:

Support, requiring the above amendments.

CHAPTER 2 THE WELLINGTON REGION

EECA supports the Council’s aspirations for the region consistent with its Long-term Council Community Plan (2006 – 2016) and in particular the goal to ensure high quality and secure infrastructure and services to meet the everyday needs of the region. EECA submits that this should be strengthened by recognising and promoting the regional and national benefits of renewable energy in Wellington.

2.4 Integrated management of natural and physical resources

Relief Sought:

Amend Chapter 2, section 2.4 as follows (bold, underlined):

“A prime role of the Regional Policy Statement is to integrate management of the natural and physical resources of the region in response to issues of national and regional significance, including those issues of significance to iwi authorities...”

*“Integrated management is relevant to managing the inter-relationships between infrastructure and its associated services and any natural resource associated with it. **Infrastructure provision creates a range of positive effects and benefits. For example, an affordable, reliable and secure energy system which utilises renewable energy resources is necessary to underpin community wellbeing. In this regard, the region has significant renewable energy resources. Integrated management** It is also relevant to productive enterprise in rural areas and the natural resources upon which these enterprises rely.”*

Reasons: Recognising the role of renewable energy in the integrated management of natural and physical resources will provide wider context for planning provisions to promote the benefits of its use and development. This is in accord with Part II of the RMA and the Act’s definition of natural and physical resources.

Relief Sought: Support, requiring the above amendments.

CHAPTER 3 RESOURCE MANAGEMENT ISSUES AND OBJECTIVES

3.1 Air Quality

EECA recognises that overall, the Wellington region has good air quality however, it does experience localised air quality problems. The proposed regional policy statement indicates that of those discharges associated with people’s activities the most polluting air containment in the region is fine particulate matter (PM10) and that in winter almost all of this comes from domestic fires.

EECA submits that the regional policy statement should identify the role of renewable energy as a ‘cleaner’ fuel sources in reducing fine particulate matter compared with non-renewable fuels, displacing carbon dioxide (CO₂) emissions and improving local amenity.

Issues

Relief Sought: Amend Chapter 3, section 3.1 as follows (bold, underlined):

“There is potential in the region for the use of cleaner fuels combined with modern burning technologies which utilise wood pellets, firewood, fire-logs and wood chips in residential and commercial wood burners. These can reduce fine particulate matter compared with

non-renewable fuels, displace carbon dioxide emissions and improve local amenity.”

Reasons: The uptake of renewable energy fuels combined with modern burning technologies which utilise wood pellets, firewood, fire-logs and wood chips in residential and commercial wood burners can reduce PM10 compared with non-renewable fuels, displacing CO₂ emissions and improving local amenity. The amendments are in accord with RMA s 7(j).

Relief Sought: Support, requiring the above amendments.

3.2 Coastal Environment

There is nationally significant potential for the development of renewable energy resources (wind and marine energy) in the regions coastal marine area and the coastal environment. The significant local, regional and national benefits of renewable energy should be recognised as a significant resource management issue in the coastal environment and provided for through additional planning provisions.

Issues

Relief Sought: Support and retain recognition of the significant wind and marine energy resources in the region and insert an additional issue in Chapter 3, section 3.2 as follows (bold, underlined):

“5. Managing the appropriate subdivision, use and development of the coastal environment

Some uses and developments require coastal locations including ports, transport infrastructure and energy generation and transmission infrastructure. The protection of the natural character of the coastal environment need not preclude appropriate use and development where adverse effects can be avoided, remedied or mitigated.

Meeting the foreseeable needs of future generations will require the provision of critical infrastructure essential to the community’s economic and social wellbeing. The Wellington coastal environment has significant renewable energy resources and in particular an exceptional marine energy resources (tidal/ocean current resources). Marine energy may become increasingly important in meeting New Zealand’s electricity demand in the future. The region also

has significant wind energy potential. Wind energy is expected to meet a much greater share of the country's electricity than at present.

Relief Sought: Support, requiring the above or similar amendments.

Objectives

Relief Sought: Insert an additional objective in Chapter 3, Table 2 as follows (bold, underlined):

“to provide for appropriate subdivision, use and development of the coastal environment”

Or

“the region's nationally significant marine energy generation resource is recognised and promoted”

Relief Sought: Oppose, requiring the above amendments.

Reasons: This issue reflects the issue of protecting the natural character of the coast while facilitating appropriate use and development to meet the needs of the community. It is accepted that renewable energy issues are addressed as part of the energy, infrastructure and waste policy provisions however, given the exception renewable energy resource in the coastal environment it is considered pertinent that this is also recognised through the coastal provisions.

The RMA does not preclude appropriate use and development in the coastal environment and this relief accords with RMA section 7 (j) and the Council's functions under section 30 (gb).

The New Zealand Coastal Policy Statement requires regional policy statements and plans to define what sort of use and development is appropriate in the coastal environment and where. It recognises that protecting the natural character of the coast does not preclude appropriate use and development.

The Wellington region has exceptional tidal/ocean current resources. A report commissioned by EECA and the Electricity Commission⁴ indicates that New Zealand's tidal/ocean current energy resources is

⁴ *Development of Marine Energy in New Zealand*, Power Projects Limited, 30 June 2008
www.eeca.govt.nz/sites/all/files/marine-energy-in-nz-jun-08.pdf

limited to a few locations and the Wellington region is the location of the best resource (refer to Figure 1 attached to this submission). The report indicates that the Wellington region is likely to be one of the first areas to see larger-scale tidal/ocean current developments in New Zealand. The report indicates that there are a number of constraints to the uptake of marine energy in New Zealand including regulatory barriers. The relief sought seeks to reduce regulatory barriers to marine energy.

Although an emerging technology, marine energy is likely to become an increasingly important way to meet New Zealand's electricity demand. The regional policy statement needs to be a relevant document not only for the present, but for the future. In addition, the appropriate development of marine resources results in considerable local, regional and national benefits and positive effects and the relief sought therefore accords with RMA section 7 (j).

Relief Sought: Oppose, requiring the above or similar amendments.

Relief Sought: Require the above or similar amendments.

3.3 Energy, Infrastructure and Waste

EECA supports the identification of energy, infrastructure and waste as significant regional resource management issues. EECA submits that the emphasis on energy efficiency and conservation and use of the region's renewable energy resources be retained and strengthened.

Issues

Relief Sought: Amend Chapter 3, section 3.3 as follows (bold, underlined):

*"In 2009, the Hau Nui wind farm, near Martinborough, a small hydro generation site at Kourarau Dam near Gladstone in the Wairarapa, two landfill gas generation plants at the Silverstream and Wellington City Southern landfill, **and the West Wind wind farm in Makara** were the only energy generation sites in the Wellington region. **There are also a number of proposed wind farm developments in the region at Mill Creek, Long Gully and Puketiro. Resource consent has been granted for a marine energy in Cook Strait.**"*

"There is also the challenge of reducing greenhouse gas emissions from fossil fuels to meet international

climate change obligations. In recent years New Zealand's emission levels have continued to increase. For example carbon dioxide electricity related emissions have almost doubled over the past 17 years.

The region faces several major long-term energy challenges, including responding to climate change and tackling carbon emissions, especially from transportation and electricity generation. Other challenges are securing clean, renewable energy at affordable prices and using it efficiently, as well as responding to impacts on the region from oil depletion and the rising costs of oil.”

“The New Zealand Energy Strategy (2007), the New Zealand Energy Efficiency and Conservation Strategy (2007 including the target of 90% renewable electricity by 2025, and the New Zealand Transport Strategy (2008) outline New Zealand's actions on energy and climate change.”

“The region contains significantly greater renewable energy resources than are currently used. Wind, biofuels, biomass, marine and solar (for hot water systems), have been identified as possible renewable energy generation sources for the region. There is also the potential for small-scale renewable energy generation including small-scale hydro in the region. Tidal and ocean currents in Cook Strait and, to a lesser extent, wave action in Cook Strait and off the Wairarapa coast are also significant renewable energy resources. New Zealand has limited locations appropriate for marine energy development and the Cook Strait has one of the best tidal/ocean current resources in the country. ~~technological advances are required to realise this potential...~~ The Wellington region is likely to be one of the first locations of larger-scale tidal/ocean current generation in New Zealand over the next 3 – 7 years.”

“Infrastructure

The transport network, airports, the port, telecommunication facilities, the rail network and other utilities and other infrastructure, including energy generation and transmission and distribution networks, are significant physical resources. This infrastructure forms part of nationally or regionally significant infrastructure and networks that and enables communities to provide for their social,

economic, and cultural wellbeing and their health and safety.”

“1. Energy

*The Wellington region is dependant on externally generated electricity and overseas-sourced fossil fuels and is therefore vulnerable to supply disruptions and energy shortages. **In addition, demand for energy is increasing.** However, significant **opportunities for improving the efficiency of the end use of energy and for the development of** renewable energy resources exist within the region.”*

Reasons: Issue 1 should explicitly recognise the issue of increasing demand for energy. Central to this issue is the significant potential for renewable energy in the region, in particular wind and marine energy. The proposed amendments accord with national energy policy objectives and the RMA s7(j).

Relief Sought: Support, requiring the above or similar amendments.

Objective 9 Energy

Relief Sought: Retain Objective 9 (Chapter 3, table 3).

Reasons: Objective 9 responds to the national imperatives for energy efficiency and use of renewable energy and accords with RMA Part II.

Relief Sought: Support and retain Objective 9.

Objective 10 Regionally significant infrastructure

Relief Sought: Amend Objective 10 (Chapter 3, Table 3) as follows (bold, underlined):

*The social, economic, cultural and environmental, benefits of regionally **and nationally** significant infrastructure are recognised and **protected promoted.***

Reasons: Renewable energy infrastructure, at any scale, creates significant national, regional and local benefits. The national significance of renewable energy is evidenced in the preparation of a national policy statement on renewable electricity. This reflects the government's latest thinking regarding the significance of renewable electricity and the need for local authorities to positively promote the

benefits of renewable energy within overall planning policy frameworks.

Relief Sought: Support, requiring the above amendments.

CHAPTER 4 POLICIES AND METHODS

4.1 Regulatory policies – direction to district and regional plans and the Regional Land Transport Strategy

Air Quality

EECA supports the air quality policies and notes that the use of wood energy generates benefits associated with the use and development of a renewable energy source.

Policy 2 Reducing adverse effects of the discharge of odour, smoke, dust and fine particulate matter – regional plans

Relief Sought: Amend Chapter 4, section 4.1, policy 2 as follows (bold, underlined):

“Explanation

There is potential in the region for the use of cleaner fuels combined with modern burning technologies which utilise wood pellets, firewood, fire-logs and wood chips in residential and commercial wood burners. These can reduce fine particulate matter compared with non-renewable fuels, and displace carbon dioxide emissions and improve local amenity”

Reasons: The uptake of renewable energy fuels combined with modern burning technologies is in accord with the requirement to have regard to the benefits to be derived from the use and development of renewable energy resources pursuant to RMA section 7 (j). The definition of renewable energy includes biomass.

In a residential setting moving to low emission wood burners and wood pellet fires can reduce PM10 emissions while ensuring that wood continues to be utilised as a renewable energy source. Furthermore, moving to heat pumps, gas or diesel burners are more expensive forms of heating and utilise a non-renewable energy source.

In a commercial setting switching from coal to wood fuels such as wood chips and wood pellets is a cost effective means to reduce PM10 emissions. This has

been widely demonstrated in EECA funded initiatives where businesses have switched to wood fuels and reduced energy costs while reducing PM10 emissions and CO₂ emissions⁵. It is important that wood is recognised as a cleaner alternative to coal. The nature of the discharges to air from wood boilers will depend on the type of fuel used and the emission controls implemented. A wood-fired boiler using a consistent fuel type, both in terms of wood source and moisture content, should be able to operate with good combustion control and lower emissions.

Relief Sought: Support, requiring the above amendments.

Coastal Environment

EECA is concerned that the proposed regional policy statement is overly restrictive and does not provide sufficient policy direction on determining what constitutes appropriate development in the coastal environment recognising that the RMA does not necessarily preclude such activities. Combined with the priorities to protect the natural character of the coast, EECA is concerned that renewable energy generation proposals will be unjustifiably restricted. There is significant renewable energy resource in the Wellington coastal environment and clear national imperatives regarding increasing the proportion of renewable energy generation.

Relief Sought: Insert a new policy into Chapter 4, section 4.1 as follows (bold, underlined):

“Renewable energy in the coastal environment – district and regional plans

District and regional plans shall include policies, rules and/or methods that recognise:

- (a) the benefits to be derived from the use and development of renewable energy sources in the coastal environment including national, regional and local benefits; and**
- (b) the nationally significant wind and marine energy resources within the coastal environment and the need for electricity generation facilities to locate where these resources exist.”**

Relief Sought: Insert an explanatory map into the regional policy statement to illustrate the potential areas for tidal/ocean current energy generation in the region.

⁵ Refer to the case study on New Zealand Foam latex in Christchurch:
www.bkc.co.nz/Reports/Publications/BioenergycaseStudies/NZFoamLatex/tabid/161/Default.aspx

An appropriate map is presented in Figure 2 attached to this submission.

Reasons: The RMA does not preclude appropriate use and development in the coastal environment. As previously noted there is significant potential for the development of marine and wind energy in Wellington. The appropriate development of such resources results in considerable local, regional and national benefits and positive effects. The relief accords with the Council's functions under RMA section 7 (j) and section 30 (gb).

Relief Sought: Oppose, requiring the above or similar amendments.

Energy, infrastructure and waste

EECA supports the regulatory policies regarding energy and submits that the proposed regional policy statement should go further by promoting the benefits of regionally and nationally significant renewable energy; recognising the location requirements of renewable energy generation; and protecting nationally significant infrastructure.

Policy 6 Recognising the benefits from regionally significant infrastructure and renewable energy – regional and district plans

Relief Sought: Amend Chapter 4, section 4.1, policy 6 as follows (bold, underlined):

*“Policy 6: Recognising **and promoting** the benefits from regionally **and nationally** significant infrastructure and renewable energy – regional and district plans*

*District and regional plans shall include policies that recognise **and promote**:*

*(a) the social, economic, cultural and environmental benefits of regionally **and nationally** significant infrastructure ...”*

*“(b) the **regional and national** social, economic, cultural and environmental benefits **to be derived from the generation and transmission** of energy generated—from renewable energy resources including*

(i) security of supply and diversification of our energy sources;

*(ii) reducing dependency on imported **and non-renewable** energy resources; and*

*(iii) reducing greenhouse gas emissions; **and***

(iv) reducing dependency on the national grid and reducing transmission losses.

(c) the nationally significant wind and marine energy resources within the region and the need for electricity generation facilities to locate where these resources exist.

Explanation

Energy generated from renewable energy and regionally **and nationally** significant infrastructure can provide benefits both within and outside the region. Renewable energy benefits are not only generated by large scale renewable energy projects but also smaller scale projects.

Renewable energy means energy produced from solar, wind, hydro, geothermal, biomass, tidal, wave and ocean current sources. **There is significant potential for the development of renewable energy resources in the Wellington region.**

Imported energy resources include **non-renewable resources such** as oil, natural gas and coal.

When considering the benefits from renewable energy generation the contribution towards national goals in the New Zealand Energy Strategy (2007) and the National Energy Efficiency and Conservation Strategy (2007) **including the 90% renewable electricity target by 2025 and the Proposed National Policy Statement on Renewable Electricity** will also need to be given regard.

Regionally **and nationally** significant infrastructure includes:

• facilities for the generation and transmission of electricity where it is supplied to the **local distribution network or the national electricity grid.**"

Reasons:

Renewable energy infrastructure, at any scale, creates significant national benefits. The law relating to the benefits of renewable energy in regard to RMA section 7(j) has been refined to some extent where the Environment Court⁶ identified the benefits to be derived from renewable energy to include:

- security of supply;
- reduction in greenhouse gas emissions;

⁶ *Genesis Power Ltd and The Energy Efficiency and Conservation Authority v Franklin District Council A148/2005*

- reduction in dependence on the national grid;
- reduction in transmission losses;
- reliability;
- development benefits; and
- contribution to the renewable energy target.

Clearly these matters are of national significance.

The relief sought is consistent with RMA section 7 (j) and Policy 38 of the proposed regional policy statement.

Relief Sought: Support, requiring the above amendments.

Policy 7 Protecting regionally significant infrastructure – regional and district plans

Relief Sought: Amend Chapter 4, section 4.1, policy 7 as follows (bold, underlined):

*“Policy 7: Protecting regionally **and nationally** significant infrastructure – regional and district plans*

*District and regional plans shall include policies and rules that protect regionally **and nationally** significant infrastructure from incompatible new land uses or activities under, over, or alongside.*

Explanation

*Regionally **and nationally** significant infrastructure is an important physical resource that enables people and communities to provide for their social, economic and cultural wellbeing, and their health and safety.*

*Regionally **and nationally** significant infrastructure includes:*

- *facilities for the generation and transmission of electricity where it is supplied to the **local distribution network or the national electricity grid.**”*

Reasons: Renewable energy generation, of any scale, is of national significance. The relief sought accords with RMA section 7 (j).

Relief Sought: Support, requiring the above amendments.

Policy 10 Energy efficiency and small scale renewable energy – district plans

Relief Sought: Retain Chapter 4, section 4.1, policy 10.

Reasons: Energy efficiency design to promote passive solar construction saves energy, reduces dampness and condensation, improves sound insulation, increases the durability of building materials and creates healthier dwellings. Solar heating can be the sole source of warmth or can be supplemented by other sources.

Interest is growing in small domestic and community scale renewable energy systems including measures such as solar water heating, photovoltaics and domestic wind turbines.

Relief Sought: Support and retain policy 10.

Fresh water

The fresh water policies are silent on the issue of hydroelectricity generation as a use of water. There is potential in the region for micro, mini and small scale hydroelectricity generation.

Relief Sought: Amend Chapter 4, section 4.1, policy 19 as follows (bold, underlined):

“Policy 19: Prioritising water abstraction for the health and wellbeing needs—of people and communities – regional plans

Regional plans shall include policies and/or rules that give priority to the abstraction of water for the health and wellbeing needs—of people and communities including:

(a) the taking of water by any statutory authority that has a duty for public water supply under any Act of Parliament;

(b) the taking of water for reticulation into a public water supply network; and

(c) the taking of water for domestic and community supplies; and

(d) the taking of water for the use and development of renewable energy.”

“Explanation

There is potential for small scale hydro energy generation in the region to enable people and

communities to provide for their social, economic and cultural wellbeing.”

Reasons: The Wellington Regional Renewable Energy Assessment identifies the potential of about 38 MW, in mini and small-scale hydro-electricity projects in areas outside the Department of Conservation land and Native Forest areas. Renewable energy projects of all scales create a range of community-well being benefits and are particularly important in helping reach goals of decreasing greenhouse gas emissions.

Relief Sought: Oppose, requiring the above amendments.

4.2 Regulatory policies – matters to be considered

Energy, infrastructure and waste

EECA considers it appropriate to have regard to the social, economic, cultural and environmental benefits of regionally significant infrastructure when considering an application for a resource consent, notice of requirement or a change, variation or replacement to a district or regional plan. EECA is very supportive of the recognition of the nationally significant wind and marine renewable energy sources within the Wellington and require amendments to strengthen this recognition.

Policy 38 Recognising the benefits from regionally significant infrastructure and renewable energy – considerations

Relief Sought: Retain Chapter 4, section 4.2, policy 38 and amend as follows (bold, underlined):

“When considering an application for a resource consent, notice of requirement or a change, variation or replacement to a district or regional plan, particular regard shall be given to:

*(a) the social, economic, cultural and environmental benefits of **nationally and** regionally significant infrastructure and/or energy generated from renewable energy resources; and*

(b) the nationally significant wind and marine renewable energy resources within the region and the need for electricity generation facilities to locate where these resources exist.

Explanation

The benefits of energy generated from renewable energy resources include:

- security of and the diversification of our energy sources*

- reducing our dependency on imported **and/or non-renewable** energy resources – such as oil, natural gas and coal
- reducing greenhouse gas emissions
- **reducing dependency on the national grid and reducing transmission losses.**

The benefits are not only generated by large scale renewable energy projects but also smaller scale, distributed generation projects.

The benefits of **nationally and** regionally significant infrastructure include...”

“Energy generation from renewable energy and **nationally and** regionally significant infrastructure can provide benefits both within and outside the region.

Regionally **and nationally** significant infrastructure includes:

- facilities for the generation and transmission of electricity where it is supplied to the **local distribution network or the** national electricity grid...”

“When considering the benefits from renewable energy generation, the contribution towards national goals in the New Zealand Energy Strategy (2007) and the National Energy Efficiency and Conservation Strategy (2007) **including the 90% renewable electricity target by 2025 and the Propsoed National Policy Statement on Renewable Electricity** will also need to be given regard.

The national significance of the Wellington region’s marine and wind resources is identified in two reports. These reports are ‘Marine Energy – Development of Marine Energy in New Zealand with particular reference to the Greater Wellington Region Case Study by Power Projects Ltd, June 2008’ and, ‘Wind Energy – Estimation of Wind Speed in the Greater Wellington Region, NIWA, January 2008’. **The Renewable Energy Assessment for the Wellington Region, August 2006 identifies the first order magnitude potential for renewable energy development in the region.**”

~~Policy 38(a) shall cease to have effect once policy 6 is given effect in a relevant district or regional plan.”~~

Reasons: Renewable energy generation, of any scale, is of national significance. The relief sought accords with RMA section 7 (j) and the significant marine and wind energy potential in the region.

Relief Sought: Support, requiring the above amendments.

Coastal environment

Policy 52 Public access to and along the coastal marine area, lakes and rivers – consideration

Relief Sought: Retain Chapter 4, section 4.2, policy 52 (j).

Reasons: In some cases it is essential that public access to the coastal marine area is restricted to ensure the integrity and security of regionally significant infrastructure is not compromised.

Relief Sought: Support and retain policy 52.

Regional form, design and function

Policy 55: Managing development in rural areas – consideration

Relief Sought: Retain Chapter 4, section 4.2, policy 55 reference to minimising demand for non-renewable resources in rural areas.

Reasons: The development of renewable energy resources in rural areas reduces reliance of the national electricity grid and creates a range of wider benefits. Policy 55 accords with RMA section 7 (j).

Relief Sought: Support and retain.

4.4 Non-regulatory policies

Energy, infrastructure and waste

EECA supports non-regulatory policies to promote energy efficiency and conservation and the use of renewable energy resources.

Policy 65: Promoting efficient use and conservation of resources – non-regulatory

Relief Sought: Retain Chapter 4, section 4.4, policy 65.

Reasons: Energy efficiency and conservation measures assists in achieving the sustainable management of resources. The policy is consistent with RMA section 7 (ba).

Relief Sought: Support and retain.

4.5 Methods to implement policies

4.5.2 Non-regulatory methods - information and guidance

Air Quality

EECA supports methods to improve air quality and submits that the methods should also promote the use of cleaner, renewable forms of heating.

Method 6 Information about reducing air pollution

Relief Sought: Retain Chapter 4, section 4.5, method 6 and amend as follows (bold, underlined):

“Prepare and disseminate information to promote:

(b) best practice techniques to reduce fine particulate matter through the use of renewable energy resources;

“(ed) homeowners adopting cleaner, renewable forms of heating and insulation for their houses.”

Reasons: The uptake of renewable energy fuels combined with modern burning technologies can reduce fine particulate matter compared with non-renewable fuels, displacing CO₂ emissions and improving local amenity. The amendments are in accord with RMA s 7(j).

Relief Sought: Support, requiring the above amendments.

Energy, infrastructure and waste

Method 10 Information about energy efficient subdivision, design and building development

Relief Sought: Retain Chapter 4, section 4.5, method 10.

Reasons: EECA supports the dissemination of information on energy efficiency subdivision, design and development.

Relief Sought: Support and retain.

4.5.3 Non –regulatory methods – integrating management

Method 32 Identify sustainable energy programmes

Relief Sought: Retain Chapter 4, section 4.5, method 32 and amend as follows (bold, underlined):

*“Identify sustainable energy programmes, to improve energy efficiency and conservation, **increase the proportion of energy generated from renewable resources**, reduce emissions of carbon dioxide and minimise the region’s vulnerability to energy supply disruptions or shortages.”*

Reason: A key component of sustainable energy programmes should be the outcome to increase the proportion of energy generated from renewable sources. EECA welcomes the opportunity to participate in the development of such programmes.

Relief Sought: Support, requiring the above amendments.

4.5.5 Non–regulatory methods – providing support

Method 55 Assist the community to reduce waste, and use water and energy efficiently

Relief Sought: Retain Chapter 4, section 4.5, method 55.

Reasons: EECA supports programmes to assist in improving energy efficiency.

Relief Sought: Support, requiring the above amendments.

CHAPTER 5 MONITORING & Anticipated Environmental Results

EECA supports the identification of energy related anticipated environmental results in support of Objectives 9 and 10.

Relief Sought: Retain Chapter 5, anticipated environmental result for objectives 9 and 10.

Reasons: The anticipated environmental results are considered appropriate to the achievement of the objectives.

Relief Sought: Support and retain anticipated environmental results for objectives 9 and 10.

DEFINITIONS

EECA submits that the regional policy statement should include definitions of energy efficiency and conservation to clarify what is meant by these terms. EECA also submits that the definition of regionally significant infrastructure be extended to recognise that such infrastructure results in critical national benefits and is of national significance.

Energy efficiency and energy conservation

Relief Sought: Insert the definitions of energy efficiency and energy conservation as follows (bold, underlined):

“Energy conservation - a reduction in energy use.

Energy efficiency - a change to energy use that results in an increase in net benefits per unit of energy.”

Reasons: The proposed definitions as set out above have been taken from the Energy Efficiency and Conservation Act 2000 and provide clarification of the meaning of these terms.

Regionally significant infrastructure

Relief Sought: Amend the definition of regionally significant infrastructure as follows (bold, underlined):

*Regionally **and nationally** significant infrastructure includes:”*

*“facilities for the generation and transmission of electricity where it is supplied to the **local distribution network or the** national electricity grid.”*

Reasons: The relief sought is consistent with EECA's submission on policy 6.

Relief Sought: Support, requiring the above amendments.

7. Summary

In summary, EECA submits that:

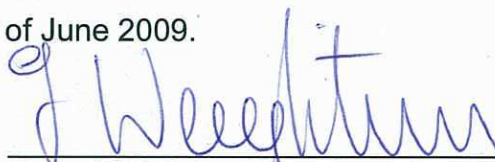
- a) Energy efficiency and energy conservation improvements along with renewable energy developments will play a vital role in New Zealand's energy future.

- b) There is significant potential for energy efficiency improvements in the region and for the development of renewable energy. The Wellington region has nationally significant wind and marine energy resources.
- c) There is strong public support for energy efficiency initiatives and for renewable energy sources which are favoured highly over fossil fuel sources and perceived as having an important impact now and in the future.
- d) The regional policy statement seeks to promote the sustainable management of natural and physical resources in the Wellington region and can therefore adopt strong objectives, policies and methods to positively promote the development of renewable energy and the adoption of energy efficiency and conservation measures.
- e) The inclusion of renewable energy policies will contribute to the overall wellbeing of the community through local, regional and national benefits and is consistent with Resource Management Act sections 7 (ba), (i) and (j) and the government's renewable electricity target.

This submission is consistent with EECA's mandate to promote energy efficiency and renewable energy pursuant to the Energy Efficiency and Conservation Act 2000. In lodging its submission, EECA has taken into account the sustainability principles in section 6 of that Act including the principles of the Treaty of Waitangi.

- 8. **EECA may wish to be heard in support of its submission.**
- 9. **If others make a similar submission EECA is prepared to consider presenting a joint case with them at the hearing.**

DATED at Wellington this 8th day of June 2009.

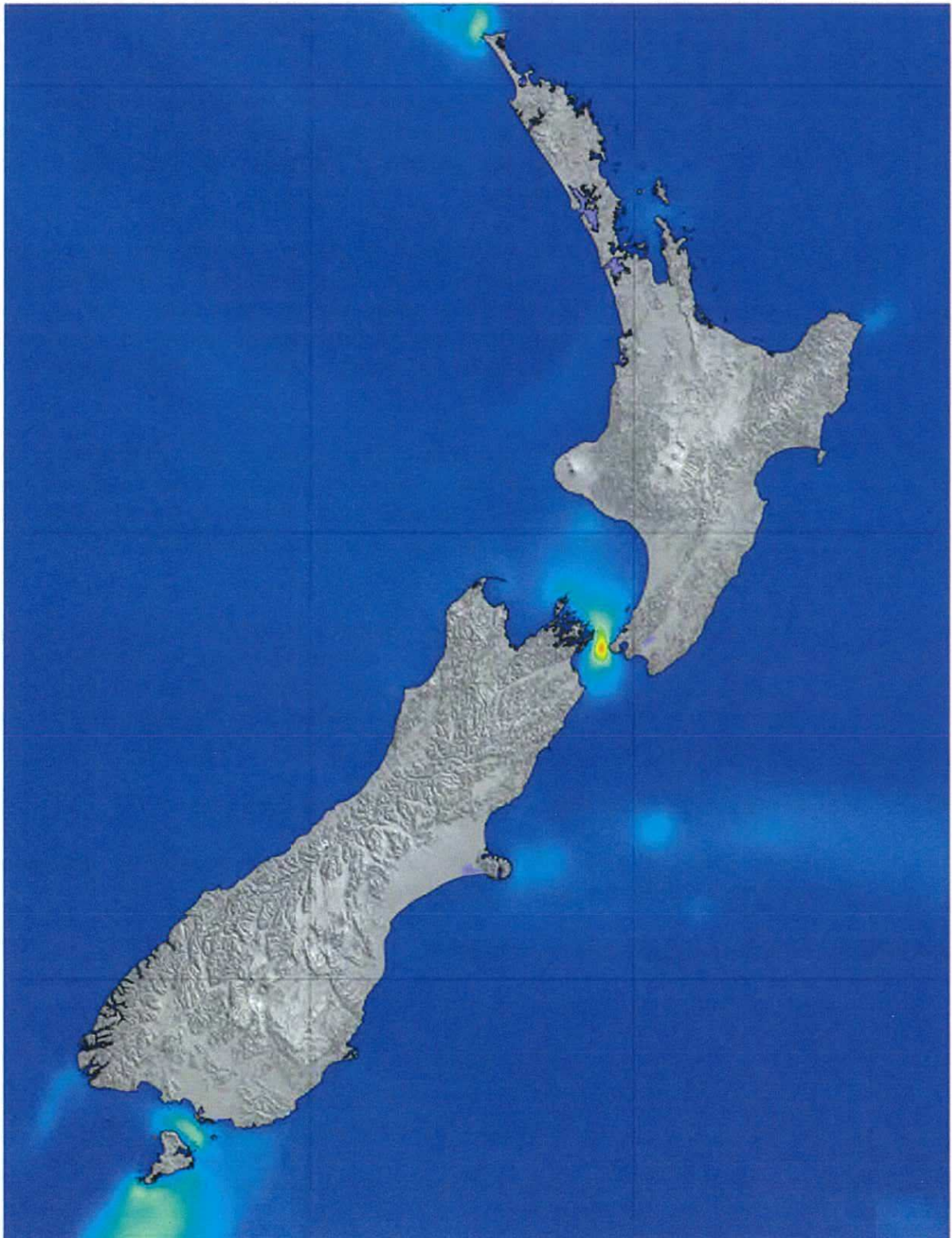


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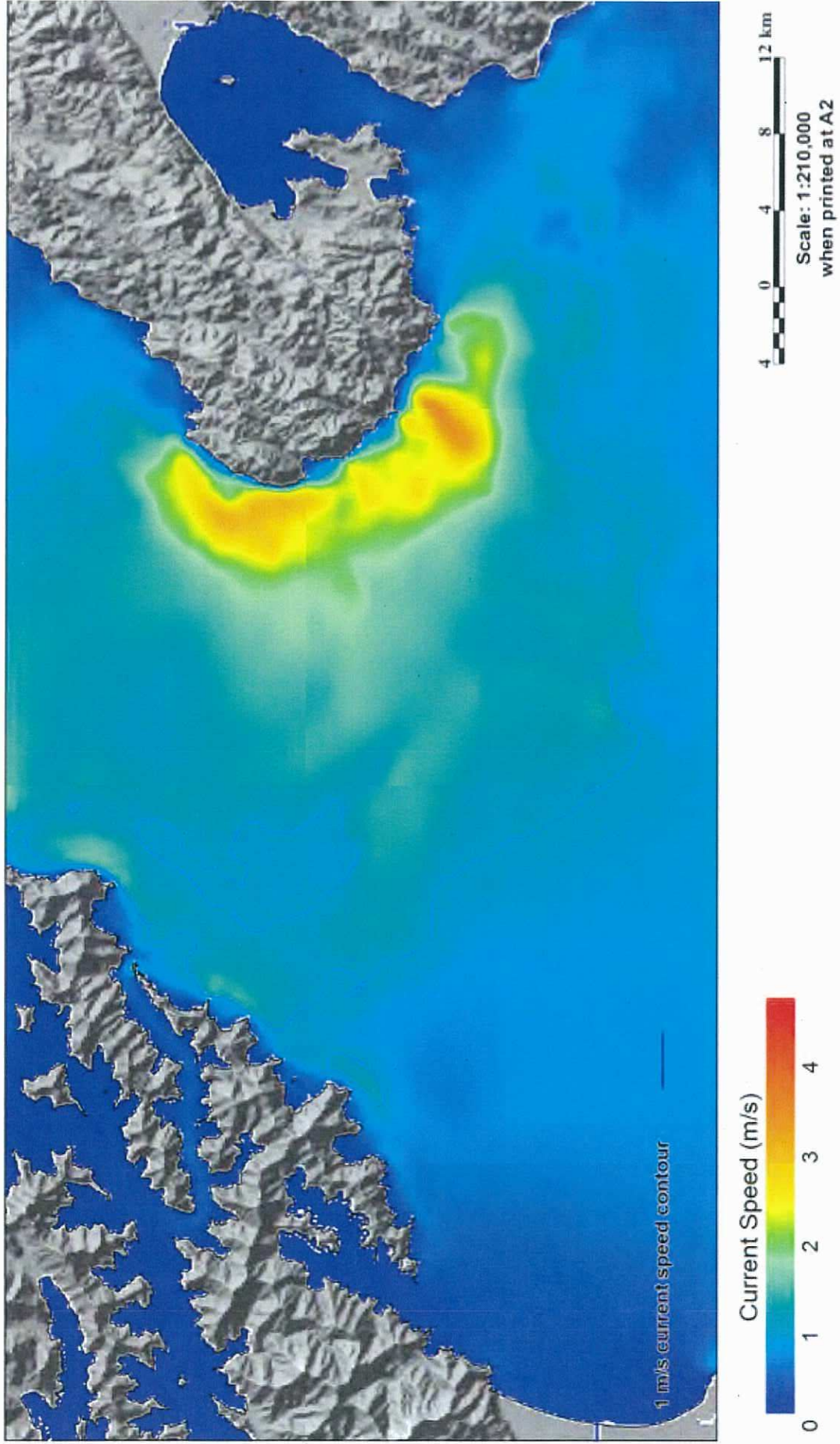
FIGURE 1 DEPTH-AVERAGED TIDAL CURRENT SPEEDS FOR MEAN SPRING FLOWS



© Power Projects Limited and Met Ocean Solutions

Source: *Development of Marine Energy in New Zealand*, Power Projects Limited, 30 June 2008, Figure 5.6.

FIGURE 2 DEPTH AVERAGED MEAN SPRING TIDAL CURRENTS IN COOK STRAIT



© Power Projects Limited and Met Ocean Solutions
Source: *Development of Marine Energy in New Zealand*, Power Projects Limited, 30 June 2008, Figure 7.2.

