

SUBMISSION ON WIND FARMS AND THE DISTRICT PLAN: ISSUES AND OPTIONS REPORT

To: Wellington City Council

Name of submitter: Ministry of Economic Development

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1. Introduction

- 1.1 The Ministry of Economic Development (MED) is pleased to have the opportunity to make a submission to the committee jointly with the Energy Efficiency and Conservation Authority (EECA) on the *Wind Farms and the District Plan: Issues and Options Report* (the Report).
- 1.2 MED's comments today are centred on the role of renewable energy sources in the national energy supply mix and in light of key government energy objectives.
- 1.3 Renewable energy makes a major contribution to New Zealand's primary energy supply and a particularly large contribution to our electricity generation.¹
- 1.4 Although hydro and geothermal energy have been the major primary renewable sources, wind is an increasingly viable energy source for New Zealand. The uptake of wind energy will contribute to security of supply through "diversification" in electricity generation. Additionally, wind energy, and renewables more broadly, are an environmentally responsible alternative to using fossil fuels for generation.²
- 1.5 The government, in a number of key policy documents, has outlined the importance of renewables in New Zealand's future energy mix. A brief description of these will place the Ministry's and EECA's comments today in a wider context.

2. Government energy policy

- 2.1 Wind farm development contributes to the government's stated objectives for the energy sector (namely energy efficiency and security of supply, with an increasing focus on renewables) and is consistent with the principles for sustainable development.

¹ Renewables generated 68.5% electricity in the MYE 2003 and provided 28.9% of primary energy supply in 2002 (Ministry of Economic Development, *Energy Data File*, July 2003).

² The Ministry acknowledges that there are also environmental impacts of renewable energy developments, which need to be managed. Our comment here concerns the advantages that renewables have as lower emitters of greenhouse gases.

Sustainable Development Programme of Action

- 2.2 The Sustainable Development Programme of Action (SDPOA) is one of the government's major over-arching documents. The Programme seeks to ensure that economic, environmental, social and cultural considerations are integrated in policy development. It is underpinned by a number of principles and is being advanced via a four-fold focus on priority areas, and in this way is similar to the approach taken by the Wellington City Council in your Sustainable Development Strategy.³
- 2.3 Energy has been identified as a target area because of the correlation between energy development and economic growth, the environmental impact of energy production and use, and because both consumers and industry are heavily reliant on its supply.
- 2.4 The Programme's major objective for energy is to ensure continued delivery of energy services to New Zealanders. It acknowledges that renewable energy sources, such as wind, will become increasingly important in providing security of supply and in mitigating harmful effects that energy use can have on the environment.

Security of supply

- 2.5 In looking to achieve continued delivery of energy services, as set out in the Programme of Action, security of supply will be a critical issue.
- 2.6 Reliance on hydro-generated electricity means New Zealand is vulnerable to the effects of dry years. Dry years indicate the dependence of both consumers and industry on energy as a key element of infrastructure and, consequently, how essential security of supply is. Although supply of wind energy is intermittent and not necessarily predictable over short time periods, New Zealand's considerable wind resource means that wind energy is likely to be more reliable here than overseas, and a contributor to our future energy supply mix.
- 2.7 Security of supply also requires that New Zealand has the generation capacity over the long term to meet energy demand growth. It is important that, as the means become available, New Zealand undertakes the transition to renewable energy sources to ensure that we have the capacity to accommodate the growth in demand and to compensate for the inevitable decline in non-renewable sources, such as the Maui gas field. Wind farm developments would contribute to the increased generation capacity required to satisfy demand while at the same time reducing New Zealand's dependence on non-renewable energy sources.⁴

³ These focus areas are water quality and allocation, energy, sustainable cities, and child and youth development (Department of Prime Minister and Cabinet, *Sustainable Development for New Zealand: Programme of Action*, January 2003).

⁴ Security of supply is also highlighted in the Government's Policy Statement (GPS) on the electricity industry. The GPS identifies the government's overall objective for the electricity industry is to ensure that electricity is delivered in an efficient, fair, reliable and environmentally sustainable manner to all

Climate change policy

- 2.8 Development of renewable energy sources will also help New Zealand delay the effects of climate change and meet its obligations under the Kyoto Protocol.⁵ Given their much lower levels of greenhouse gas emissions, renewables are an environmentally responsible alternative to burning fossil fuels.
- 2.9 The energy sector is a key sector for targeting, in particular, carbon dioxide emissions given that the sector contributes approximately 90% of New Zealand's national gross human-made CO₂ emissions.⁶ Carbon dioxide contributes approximately 40% of New Zealand's total greenhouse gas emissions (refer appendix 1).
- 2.10 As part of the 'Projects' component of the government's climate change policies, developments can be awarded Kyoto emission units (or carbon credits) if they provide emission reductions in the Protocol's first commitment period (2008-2012) beyond the reductions that would have occurred without the project.
- 2.11 The government has accepted Meridian Energy's Te Apiti wind farm development as a 'project' and has reserved emission units for it as well as for Wind Farm Development's proposed wind farm south of Wainuiomata, indicating the contribution that wind farms can make to meeting New Zealand's climate change objectives.

Resource Management (Energy and Climate Change) Amendment Bill

- 2.12 As the Council's Options Report identifies, the latest Resource Management Act 1991 (RMA) amendment is one mechanism for giving effect to the government's energy objectives.
- 2.13 The purpose of the Bill is to ensure that councils give greater weight to the effects of climate change, energy efficiency, and the benefits associated with the use and development of renewable energy.
- 2.14 The Bill has been through the select committee and we understand that it is likely to be passed this year.

3. Wind Farms and the District Plan: Issues and Options

- 3.1 In light of the Resource Management Amendment Bill's progress and other national and international energy objectives, MED supports the council's intention to consider amending the District Plan to provide for renewable energy developments.

classes of consumer (Ministry of Economic Development, *Draft Government Policy Statement on Electricity Governance*, September 2003).

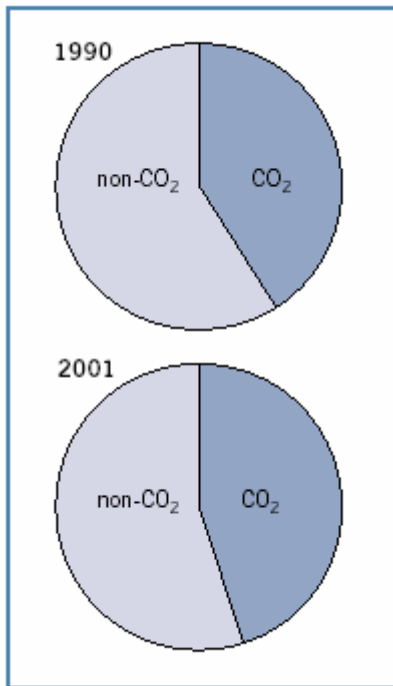
⁵ Under the Protocol New Zealand has committed to reducing its greenhouse gas emissions to the 1990 level.

⁶ Ministry of Economic Development, *Energy Data File*, July 2003.

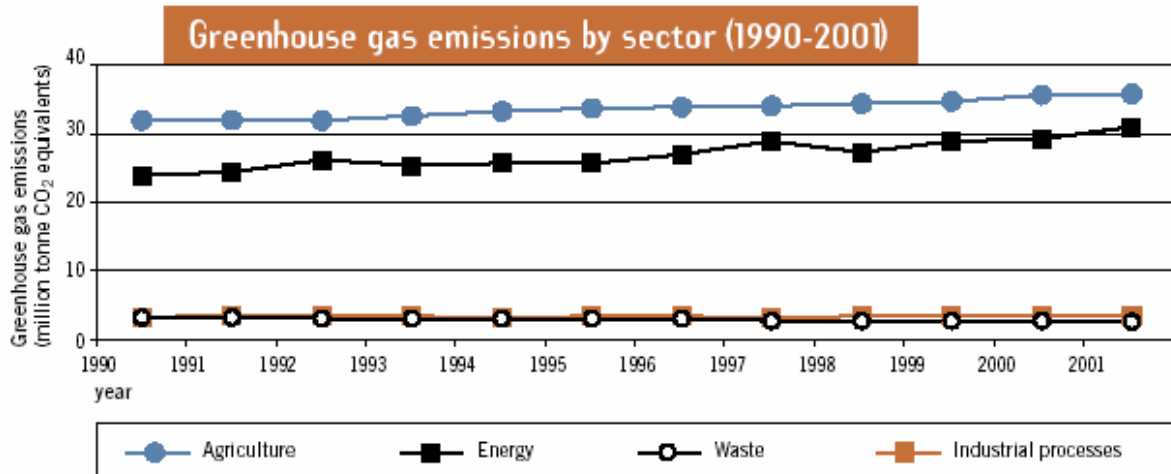
- 3.2 While it makes sense, given Wellington's considerable wind resource, to undertake greater analysis based on option 3 in the Report, it is also important that the relative merits of other renewable energy options are also considered in that analysis.

Appendix 1.

The pie charts show the difference between CO₂ and non-CO₂ emissions in New Zealand's greenhouse gas emissions inventory for the years 1990 and 2001.



Trends in New Zealand greenhouse gas emissions are shown in the graph and the pie chart below



Source: New Zealand Climate Change Office, *Climate Change: New Zealand's Greenhouse Gas Emissions*. <http://www.climatechange.govt.nz/resources/info-sheets/greenhouse-gas-emissions.pdf>