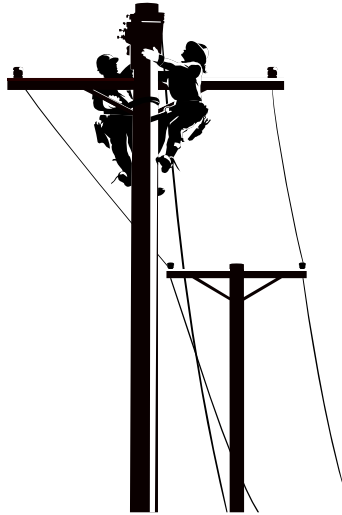


ENERGY MANAGEMENT



5.0 INTRODUCTION

Under the Resource Management Act 1991, energy is included in the definition of natural and physical resources. The Gisborne District Council consequently has a role to play in promoting the sustainable management of energy. The extent of this role is, however, limited by s5(2)(a) of the Act which excludes minerals from that part of the definition of sustainable management which relates to sustaining the potential of resources to meet the reasonably foreseeable needs of future generations. The allocation of Crown-owned minerals, including fuel minerals, is the responsibility of the Minister of Energy under the Crown Minerals Act 1991.

Apart from control of the taking, use, damming or diversion of water for the production of hydro-electric power, and control of the taking or use of geothermal energy [refer s30(1)(e) of the Act], energy is a resource that falls outside the direct control of any person or agency with functions and powers under the Act. The Government has stated, in its Energy Policy Framework that it considers the Act to be involved with energy only to the extent of controlling the adverse environmental effects of energy supply and use. Such effects include global warming/climate change arising from the combustion of fossil fuels and the release of carbon dioxide and other “greenhouse gases” to the atmosphere.

Energy management is closely linked with policies for air quality and transportation.

Globally and nationally, current patterns of energy use are unsustainable. For both economic and environmental reasons there is a need to conserve finite fossil energy resources and to make the transition to more sustainable sources of energy.

Council considers that, because of the international and national dimensions and ramifications of energy use and management, there is a need for more detailed policy guidance from central government in this area. Nevertheless, Council acknowledges that in terms of the provisions of both the Act and the broad policy framework that has been established by Government (above), it does have a responsibility to promote energy efficiency and the use of renewable energy resources.

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5.1 INEFFICIENT USE OF ENERGY

Explanation

Examples of inefficient use of energy can be found in all sectors of activity - industry, commerce, transport, primary production, urban form and in the individual home. In the past, opportunities and incentives for greater energy efficiency have received little attention, despite the evidence that energy efficiency or conservation offers the best “source” of energy in terms of its potential to postpone or avoid the economic and environmental costs associated with the provision of new energy capacity.

Government has recently moved to redress this situation via the establishment of the Energy Efficiency and Conservation Authority [EECA] whose primary function is to promote energy efficiency. EECA is endeavouring to establish strong linkages with local government.

5.1.1 Objective

1. To achieve the efficient use of energy in a way that will help to ensure the continued availability of energy to meet the needs of the community, without compromising the sustainable management of natural and physical resources.

5.1.2 Policy

1. To encourage the efficient use of energy in relation to:
 - *urban form, subdivision patterns and lot alignment.*
 - *the design, location and operation of buildings and other structures.*

- *transport modes and patterns.*
- *the use of appropriate energy saving techniques in industrial, commercial and residential situation.*
- *waste management, including the minimisation, recovery, reuse and recycling of solid wastes and other contaminants.*

5.1.3 Methods of Implementation

The Gisborne District Council will:

1. Take into account energy efficiency considerations when:
 - *preparing regional and district plans*
 - *developing transport policy*
 - *assessing environmental effects during the resource consent granting process.*
2. Serve as a role model for energy efficiency by conducting energy audits as part of a commitment to implementing a long term Energy Efficiency Action Programme dealing with in-house energy using assets.
3. Support the Energy Efficiency and Conservation Authority in its efforts to ensure that appropriate information and advice is provided to all sectors of economic and domestic activity on the benefits of energy efficiency and the availability of energy efficiency equipment and products.
4. Encourage public and private sector organisations to undertake energy audits and to implement cost-effective measures to improve energy efficiency.

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5. Mount publicity/public awareness campaigns as appropriate.

5.1.4 Reasons for Objectives, Policies and Methods

Section 7(b) of the Act requires Council to have particular regard to the efficient use and development of natural and physical resources.

In addition to conserving finite fossil fuel reserves, increased energy efficiency reduces both the financial and environmental costs associated with the generation, transportation, conversion and the end use of energy. Greater efficiency in energy use will also provide a longer period within which to achieve an orderly transition to renewable energy sources

Objective 1 applies, in principle, to all activities and to all sources of energy. It is a primary objective of energy management, based on the premise that improved energy efficiency should be pursued before developing additional or new sources of supply.

Policy 1 signals Council's intention to promote energy efficiency across a wide range of activities. It recognises that improvements in energy efficiency are desirable in the development of products and services, in building design and the use of appropriate materials and in the integrated development of the Region's settlement pattern and transport systems.

Council has a significant opportunity to encourage energy efficiency [via the control of land use and urban development] in its district plan. There is also an opportunity to address energy efficiency considerations in the Land Transport Strategy and District Land

Transport Programme which Council is required to prepare under the Transit New Zealand Act [1992 Amendment]. The resource consent process also provides an opportunity for Council to consider energy efficiency issues and/or to attach conditions to consents relating to energy efficiency [Method 1].

The conduct of in-house energy audits and the preparation of an Energy Efficiency Action Programme is a practical way for the Council to exercise leadership in this area, with the likelihood of real savings to the ratepayer. The information generated by these audits would be made available to other organisations seeking to improve their energy efficiency [Method 2].

Council wishes to work in partnership with EECA on this issue [Method 3].

Energy audits are a well established method of identifying opportunities to improve energy efficiency and to benefit financially from such improvements [Method 4].

Alternatives considered

The principal alternative to this policy on energy efficiency is to do nothing. This would contradict the intent of Section 7(c) of the Act.

5.1.5 Integrated Management

This issue relates to other issues discussed in Part 2 of this Statement, in particular:

3.0 Water Management

4.0 Air Quality Management

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7.0 Transport

8.0 Waste Management

9.2 Integrated management

5.1.6 Environmental Results Anticipated

Increased efficiency in the use of energy; conservation of finite (fossil fuel) resources, cost savings.

A net reduction in greenhouse gas emissions/reduced potential for adverse climate change effects.

Reduced need for construction of further energy generation facilities, with associated financial and environmental benefits.

5.1.7 Monitoring

Council will monitor its own energy use and will seek feedback from both industrial and domestic energy users on energy efficiency gains and losses.

5.2 THE HIGH DEGREE OF DEPENDENCY OF THE GISBORNE REGION AND ITS COMMUNITIES ON FINITE, NON-RENEWABLE, SOURCES OF ENERGY

The High Degree of Dependency of the Gisborne Region and its Communities on Finite, Non-Renewable, Sources of Energy

Explanation

The Gisborne Region, like other regions within New Zealand, is highly dependent on non-renewable fossil fuels for its energy needs. Fossil fuels (e.g. petroleum, gas, coal) are finite, expensive and there is a

significant environmental cost associated with their use (see above). Electricity usage in the region, in contrast, relies to a large extent on a renewable energy source; hydroelectric power.

The Government, in June 1993, released an outline Framework Policy Statement for Renewable Energy. Government's stated objective:

"To facilitate the development of cost-effective renewable energy, consistent with the Government's Energy Policy Framework."

Government announced further work on barriers to renewable energy, the identification of research priorities for renewable energy, and how best to incorporate the environmental cost of energy production and use into decision making.

Solar, wind, biomass, crops and wood and hydro-electric power generation are the most promising sources of renewable energy for the future.

5.2.1 Objective

1. To encourage the progressive development and use of cost-effective and sustainable sources of renewable energy within the Gisborne Region.

5.2.2 Policies

1. To support Government initiatives on renewable energy.

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2. To support energy generation from the region's renewable energy assets where such development is shown to be cost-effective, technically viable, and the effects of the development environmentally acceptable.
3. To promote greater use of cost effective renewable energy sources in production processes and activities and in the provision of commercial and domestic energy services.

5.2.3 Methods of Implementation

The Gisborne District Council will:

1. Act as an advocate where there are) environmental benefits to be gained from the use of renewable energy sources.
2. Ensure that there are no undue barriers to renewable energy developments in regional or district plans or elsewhere.
3. Promote, in conjunction with EECA, the Ministry of Commerce, research institutions and energy sector representatives, the cost-effective use of renewable energy sources in the industrial, domestic and transport sectors.
4. Promote through the Land Transport Strategy and the District Land Transport Programme (above):
 - *existing modes of sustainable (renewable) transport and associated infrastructure.*
 - *the progressive development and use of cost-effective transport modes that utilise renewable energy sources.*

5. Encourage Government to fund ongoing research into renewable energy technologies.

5.2.4 Reasons for Objectives, Policies and Methods

Non-renewable fossil fuel energy sources currently comprise the major source of energy for transport and are a significant source of energy for direct and indirect inputs to agricultural, industrial and commercial activities.

Section 7(g) of the Resource Management Act requires particular regard to be given to the finite characteristics of resources.

The continuing use of non-renewable fuels is not sustainable. Economic, social and environmental costs are associated with the depletion of finite energy resources.

Objective 1 seeks to sustain the potential for people to provide for their social and economic well-being by helping to prepare for the time when fossil fuels are in short supply.

The achievement of a transition to more sustainable patterns of energy use is a national issue. Consequently, as with energy policies generally, policy direction and associated programmes for implementation are most sensibly initiated by central government. Council will support such programmes, subject to affordability (Policy 1).

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The reasons for Policies 2 and 3 4 are self-evident. They confirm Council's intention to do what it can to support Government's aim of encouraging the development of cost-effective sources of renewable energy.

Council justifies the adoption of an advocacy role for renewable energy on the grounds that a reduction in dependency on (finite) fossil fuels is in the best long term interests of the region [Method 1].

Recent work by the Ministry of Commerce identifies potential institutional, administrative and planning barriers to the development or uptake of renewable energy technology. Council will endeavour to see that any such barriers are identified and eliminated [Method 2].

Method 3 signals Council's intention to work closely with other relevant agencies in the promotion of renewable energy options.

Council intends to use the Land Transport Strategy and the District Land Transport Programme to support transport modes that make more efficient use of fossil fuels (e.g. public transport) or which do not rely on the use of fossil fuels (e.g. cycling, walking) [Method 4].

Council considers it important that Government maintains a commitment to undertaking research into the development and application of renewable energy technologies and to the transfer of this information to user groups [Method 5].

Alternatives considered

The alternative to this objective and these policies is to do nothing. This would be to disregard the fact that current patterns of fossil fuel use are unsustainable and environmentally damaging, and would be contrary to the purpose of the Act.

5.2.5 Integrated Management

This issue relates to other issues discussed in Part 2 of this Statement, in particular:

3.0 Water Management

4.0 Air Quality Management

7.0 Transport

8.0 Waste Management

9.2 Integrated Management

5.2.6 Environmental Results Anticipated

An increased proportion of renewable energy sources is used with attendant security, economic and environmental advantages.