

Appendix 1

Sustainable Energy Strategy Scope

Sustainable Energy Strategy

Overview

The strategy is a multi-dimensional approach aimed at reducing our dependence on fossil fuels, reducing our energy needs and facilitating acceptable renewable energy generation means through education and initiatives. Not only will climate change concerns be addressed, but also environmental and health benefits will be derived.

The need for an energy strategy is driven by cumulative global circumstances, environmental thinking and the government's latest aspirations to pursue new directions with respect to energy.

Energy strategies are also being undertaken by other Regional councils & TAs in response to these drivers.

High level Strategy Components

Demand Management

Energy conservation

Energy efficiency

Renewable electricity generation

Alternative energy usage/conversion

National Grid connections

Transportation - private, commercial, public transport (rail, ferry, air & bus), shipping Transport, as far as the region is concerned is being primarily addressed through the RLTS and the revised NZ Transport Strategy

Councils leading by example not only due to cost drivers, but because they should be seen to do so by the public.

Strategy Component Descriptions

Demand Management – can be achieved through a combination of pricing, taxes (ETS), education to use less or adopt alternatives etc. or at worst blackouts (controlled outages or ripple control) – load shifting options (considering peak load demand and associated GHG emissions) – fuel switching options?

Energy efficiency and conservation – Can be achieved through greater efficiencies (e.g. energy rated appliances), insulation and design application (orientation, solar access, town planning etc). Conservation is the behavioural aspect of energy use, efficiency the structural/technical approach.

Enabling renewable electricity generation where appropriate

Solar – indicate the extent of the resource over the Wellington region; how this resource (for both PV and SWH) compares with overseas where solar is well used; hurdles & constraints, predictability/ variation year, seasonally. Likely market areas i.e. one-off domestic, commercial, local distribution or grid.

Marine – indicate where the resource exists; present outcomes from current *wave and tidal technology* project which is modelling the resource & constraints (due in June 2008) and the \$2M per year Marine Energy Deployment Fund and potentially the Neptune Power turbine trial. Note marine energy is on a development path at present.

Wind – indicate the extent of the potential resource; present wind speed map - establish mapped objective constraints; NZ experiences so far i.e. lessons learned

Other Generation forms – acknowledge what other energy sources we should include such as biomass conversion – residential solid fuel burners are a contentious area

National Transmission Grid – a draft EC enabling document explores at the relationship between renewable energy generation locations & proximity to existing or future grid connections; it seems that its technically possible; a matter of costs, and transmission losses, environmental consequences of running transmission lines across the country

Alternative Energy Generation – transition from one energy source to another such as electrically heated water or space heating to natural gas or heat pumps.