

July 2005

**Department of Communications, Marine
and Natural Resources**

- Compliance with Directive 2003/30/EC

***“Report on measures taken to promote the use of biofuels or other
renewable fuels to replace diesel or petrol.***

Compliance with Directive 2003/30/EC (Article 4)”

1. Introduction

DIRECTIVE 2003/30/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8th May 2003 on the promotion of the use of biofuels or other renewable fuels for transport, inter alia, requires Member States to report to the Commission before 1st July each year on specific measures to promote biofuels and biomass, indicative targets for market penetration and current market status of biofuels and biomass.

The second report following entry into force of this Directive is now due.

This second report sets out Ireland’s position as follows:

- The measures taken to promote the use of biofuels or other renewable fuels to replace diesel or petrol for transport purposes;
- The national resources allocated to the production of biomass for energy uses other than transport;
- The total sales of transport fuel and the share of biofuels, pure or blended, and other renewable fuels placed on the market for the preceding year.

The information provided in this report is *additional* to information provided in Ireland’s 2004 report to the Commission.

2. Measures taken to promote the use of biofuels or other renewable fuels to replace diesel or petrol for transport purposes.

Fiscal Measures

Biofuels Mineral Oil Tax Relief Scheme

In 2004, the Department of Communications, Marine and Natural Resources secured an amendment to the Finance Act 1999, which provides for the introduction of a pilot scheme for mineral oil tax relief for biofuels which is

designed either to produce biofuel or test the technical viability of biofuel for use as motor fuel.

A scheme under the Act was drawn up in 2004 and received State Aids clearance from the Commission in March 2005. Under the scheme, the mineral oil tax relief is proposed in the following categories:

- Six million litres per annum of pure plant oil produced from oil seed rape for use in modified diesel engines. The minimum project size in this category is 50,000 litres of biofuel per year.
- One million litres per annum of biodiesel or other biofuel blended with mineral diesel such that the blend complies with diesel standard EN 590. The minimum project size in this category is 100,000 litres of biofuel per year.
- One million litres of bioethanol, which is blended with petrol to a maximum of 5% (bioethanol), and used in standard petrol vehicle engines. This category also allows higher blends, up to 85%, for use in flexible fuel vehicles (FFV's). The minimum project size in this category is 100,000 litres of biofuel per year, except where the fuel is to be used in a flexible fuel vehicle application where smaller limits may be considered.

These projects taken together are subject to a maximum production capacity of 8 million litres per annum, costing in the region of €3m in mineral oil tax forgone. The purpose of the Scheme is to:

Deleted: relief

- Pilot a programme to investigate and evaluate the market for biofuels in Ireland;
- Stimulate the initial development of that market;
- Instil consumer confidence in biofuels through the application of appropriate quality standards;
- Provide a basis on which future policy decisions can be made.

The scheme was publicly advertised as a competitive “call for proposals” on 20th April 2005 and the closing date for receipt of applications was 13th May 2005. A total of 34 applications were received under the call for proposals by the closing date. Applications were received under all three categories of biofuel.

The proposals are currently being evaluated and it is anticipated that decisions on the application of excise relief to specific projects will be made shortly. The scheme is an initial measure designed to stimulate market development.

Agricultural Measures

The Department of Agriculture and Food recognises the economic and employment potential for rural communities arising from the development of a biofuels market. Cultivation of energy crops such as oilseed rape specifically for biofuel manufacture represents an opportunity to benefit rural development by providing an alternative enterprise and new use for agricultural output for farmers. The Single Payment Scheme was introduced by the Department of Agriculture and Food in 2005 and gives the farmer freedom to produce what the market requires rather than production decisions being influenced by complying with various aid/premia schemes heretofore. In 2004, an Energy Crops Scheme was introduced, with aid of €45 per hectare for areas sown under energy crops. Uptake to date has been low with only 42 farmers availing of the scheme in 2004, reflecting the fact that market development of biofuels in Ireland is still at an early stage.

Research and Development Measures

In addition to the project activities reported on last year, which are ongoing, there are also research and development measures being undertaken.

Sustainable Energy Ireland (SEI) was established by the Government on 1st May 2002, and is charged with promoting and assisting environmentally and economically sustainable production, supply and use of energy, in support of Government policy, across all sectors of the economy. Biofuels and biomass development have been supported by SEI through their Renewable Energy Research, Development and Demonstration (RERDD) programme as follows:

- Grant-aid of €40,000 has been provided for a study to establish testing procedures for oil quality assurance in the use of pure plant oil. The results of this study will guide the production and quality assurance of pure plant oil and will be critical to building market confidence. The study has been carried out by Teagasc, a State Agency with integrated research, advisory and training services for the agriculture and food industry in Ireland. The study *Quality Assurance for rapeseed oil as a vehicle fuel* has been published by SEI.
- In December 2004, Ireland published a study by international consultants “EcoFys” entitled “Liquid Biofuels Strategy Study for Ireland”. The study provided a detailed analysis of policy options to increase market penetration of biofuels in Ireland.
- EcoFys has now been commissioned to undertake a further study, on biofuels policy implementation. This study will build on the findings of the “Liquid Biofuels Strategy Study for Ireland”, and aims to examine in further detail the policy incentive options identified in the previous report and to provide a detailed path towards implementation of the most appropriate options.

- SEI has also published the following “A resource study on recovered vegetable oil and animal fats”.

3. The national resources allocated to the production of biomass for energy uses other than transport

Alternative Energy Requirement (AER) Programme

The development of renewables based electricity generating plant has been achieved to date mainly through the offer of contracts through competitions administered by the Department of Communications, Marine and Natural Resources, under the Alternative Energy Requirement (AER) Programme. Under this scheme, prospective generators are invited to make a formal application to build, own and operate newly built plant and to supply electricity from these to the Electricity Supply Board (ESB) under a Power Purchase Agreement (PPA) of up to fifteen years duration.

Since the Programme was launched in 1995, six AER competitions have been held. The biomass technologies supported include biomass (landfill gas), biomass-anaerobic digestion and biomass-combined heat and power (all three technologies were supported in the most recent AER VI competition). A total of 22.15 MW from biomass (landfill gas) projects has been commissioned to date. Three biomass-CHP projects (26.8MW) and ten biomass-AD projects (2.022MW) were successful in AER VI.

A consultation document was published in late 2003 and invited submissions from stakeholders on the best way forward for the renewables sector in order to maximize the natural resource potential the country has for renewable electricity development. The consultation document, which examined in detail support mechanisms and renewable energy policies in Ireland as well as in other European countries, looked at key areas in the future including future renewables policy, future green energy contribution to Ireland’s electricity markets, how to overcome barriers to the deployment of renewable energy and future options for market support mechanisms.

The outputs arising from the consultation process were among the subjects considered by the Renewable Energy Development Group, which was set up in May 2004. The Group is chaired by the Department of Communications, Marine and Natural Resources and includes representatives from various state and regulatory bodies, expert agencies and industry participants. The work of the group is primarily focussing on future renewable electricity support mechanisms, overcoming technical barriers to further renewable development and the funding of research, demonstration and development of renewable energy technologies. The Group’s report will form the basis of future policy decisions on the increased penetration of renewable energy technologies in the electricity market.

On 7th April 2005, the Minister for Communications, Marine and Natural Resources, announced the outline of a future support mechanism for

renewable energy. The new mechanism will move away from competitive tendering to a fixed price proposal for supply contracts with any licensed supplier.

The detailed terms and conditions of the future support mechanism will be published shortly after contacts with licensed suppliers, on the detail of the mechanism, have finished and any other obligations are complied with.

Strategy Groups

In December 2003 DCMNR and SEI, set up a Bioenergy Strategy Group (BSG), to consider the policy options and support mechanisms available to Government to stimulate increased use of biomass for energy conversion, and to make specific recommendations for action to increase the penetration of biomass energy in Ireland. Membership of the BSG comprised representatives of various Government Departments as well as State Agencies in the Agriculture and Energy sectors and industry representatives. The work of the group has been completed and a report, including recommendations, has been produced. These recommendations are wide ranging and include grant aid or fiscal regimes to support biomass, feed in electricity tariffs, agricultural incentives, marketing and information support, identification of priority pathways, and initiatives in the public sector.

These recommendations are currently being considered within the context of overall renewable energy policy development and the final recommendations of the Renewable Energy Development Group.

Projects funded by Sustainable Energy Ireland

Sustainable Energy Ireland (SEI) has to date committed €7 million to over 70 projects through its Renewable Energy Research Development and Demonstration (RERDD) programme. The RERDD programme aims to stimulate deployment of renewables close to market and address the need for information and education, which are required to raise the awareness and willingness of all relevant players to actively engage in the market. The main focus of this Programme is on stimulating increased application and deployment of renewable technologies.

There have been a number of biomass studies undertaken by SEI as part of its RERDD Programme and these include:

- Cofiring with biomass
- Landfill gas in Ireland – the facts
- Wood pellet stoves in buildings.

All of these reports are available on Sustainable Energy Ireland's website www.sei.ie

The biomass sector has attracted the largest amount of support under the RERDD programme which is mainly due to the number of major capital grant demonstration projects that have received funding. Among the specific projects addressed in SEI's Research Development and Demonstration Programme are:

- Funding of €37,220 towards a study on the feasibility of developing the first biomass CHP installation to be built in Ireland. Using sawmill by-products (with a moisture content as high as 65%), the CHP plant is designed to generate both 1.83 MW electrical energy and 3.5 MW of thermal energy in a single process. The thermal output is used for drying of construction timber in the sawmill kilns. The 1.83 MW of green electricity is being sold to the national grid. This plant, which received €732,000 in grant support from SEI, is a 1.83 MW electrical power plant fuelled by sawmill residues at Grainger Sawmill in Cork.

- Funding of €1,626 towards a 100 kW capacity wood chip/wood pellet biomass boiler at the State Forestry Company *Coillte's* headquarters. Coillte recently re-located its corporate headquarters to a 100% sustainable, timber-constructed building. The cost and installation of the boiler including automatic fuel supply auger amounted to €27,500. The remaining support from SEI is provided for the solar heating system, monitoring programme and the energy center. The solar and wood heating systems are located in a purpose-built energy centre which is open to the public. Goals of the project include:
 - Demonstration of the first large scale commercial installation of an automatic wood pellet / wood chip fuelled boiler in Ireland.
 - Achievement of zero CO₂ emissions from space heating and hot water provision.
 - Fossil fuel substitution of 400,000kWh per annum.
 - CO₂ avoidance of 160 tonnes per annum.
 - Demonstration outlet for Irish forestry by-products as a renewable, CO₂ neutral fuel source.
 - Training of Coillte personnel and Irish wood energy services company in the installation and maintenance of a wood heating system so as to ensure local service.
 - Overcoming perceived barriers of fuel cost and supply.

The installation of the boiler and solar heating systems is now complete and the next phase of the project involves monitoring of the performance of the boiler and buildings which is due for completion in 2005 after which time a full monitoring report will be made available.

- Funding of €40,000 towards the provision of a 500 kW wood boiler and solar panels at Inchadoney Lodge and Spa hotel in Clonakilty, Co Cork.

- Funding of €18,000 towards the provision of a 100 kW wood chip boiler at Camphill Community, Jerpoint, Co Kilkenny.

In addition to the RERD&D programme, SEI's House of Tomorrow Programme has committed over €7.5m funding covering 39 projects and a total of 1,818 housing units. The scheme encourages housing developers to incorporate design and technology packages for high standard energy and CO₂ performance. The range of technologies included in these packages included wood pellet boilers which have been installed in 93 homes.

A free information service on wood heating is also being provided by the SEI Renewable Energy Information Office and a free Video/ DVD on bioenergy, including wood heating, and procurement guidelines for installers and others is being made available.

EU Interreg Programme

In addition to the projects reported on last year, which are ongoing, a further biomass project has received funding under the Interreg Programme. The project aims to install biomass heating in various buildings which have a wide variety of applications. The combination of additional energy efficient measures and other forms of renewable technologies on each site will show best practice across many sectors. The total cost of the project is estimated at €10,000.

4. Total sales of transport fuel and the share of biofuels, pure or blended, and other renewable fuels placed on the market for the preceding year.

The following table illustrates the latest statistics available on transport energy consumption by fuel.

Table 1: Transport final energy by fuel in 2004 (4.7 Mtoe)

Fuel Type	kToe	% of Total
Petrol	1732	36.9
Kerosene	743	15.8
Fuel Oil	17	0.4
LPG	5	0.1
Diesel	2188	46.6
Electricity	13	0.3

In 2004 there were 14,000 litres of rapeseed oil consumed on the Irish market, which is equivalent to 0.01 kToe and represents 0.000002% of the total transport fuel market.