

## **Report on the application of Directive 2003/30/EC (promotion of the use of biofuels or other renewable fuels for transport) in accordance with Article 4(1)<sup>1</sup>**

### *Background information*

Directive 2003/30/EC (promotion of the use of biofuels or other renewable fuels for transport) defines biofuels as liquid or gaseous fuel for transport produced from biomass. Biomass is further defined as the biodegradable fraction of products, waste and residue from agriculture (including vegetal and animal substances), forestry and related industries as well as the biodegradable fraction of industrial and municipal waste.

Malta is a country with negligible potential in biofuels from agriculture. The limited freshwater resources (50% of potable water is supplied from desalination), high population density and poor soil fertility contribute to these factors.

On the other hand, Malta is totally dependent on imported fuel for all of its energy requirements. This factor is a strong motive to find means to increase fuel diversity as well as to use renewable and indigenous energy sources.

To date, however, few studies have been carried out in Malta on the potential for biofuels.

A report by the Joint Research Centre<sup>2</sup> (Institute for prospective technological studies), dated 2003, notes that Malta has no potential for production of either feedstock for biodiesel (rapeseed or sunflower) or feedstock for bioethanol (wheat, sugar beet, maize or potatoes). It specifically states that

The country has a rather small territory and differs with almost complete food import dependence. No agriculture-based production potential can be expected.

The Commission Staff Working Document on the share of renewable energy in the EU: Country Profiles - Overview of Renewable Energy Sources in the Enlarged European Union<sup>3</sup> indicates a potential of 1,000ktoe per year of biofuels for road transport in Malta. This is equivalent to 0.7% of total transport fuel consumption in Malta in 2003.

Industrial and domestic waste is the only source of biomass. In this respect, Malta's policy<sup>4</sup> is as follows:

- to reduce the quantity of waste and to encourage higher levels of reuse;
- to increase recycling and composting;
- to further develop energy recovery technologies (anaerobic digestion);
- safe disposal of residues that cannot be otherwise managed.

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<sup>1</sup> For the purpose of this report, transport refers to road transport. This is also the definition used by the UK. However, the definition given in the Directive is not that clear. If all transport were to be taken into account the percentages quoted in this report would be lower.

<sup>2</sup> JRC, Biofuel production potential of EU candidate countries, September 2003, page 11

<sup>3</sup> COM(2004)366, page 75.

<sup>4</sup> A solid waste management strategy for the Maltese Islands, September 2001.

Material recovery and composting is given a higher ranking than energy recovery in this strategy. The strategy envisages composting of biodegradable waste with targets for reducing landfilling as far as possible.

There is potential, in Malta, for waste oil to be collected and converted to biodiesel. One company, in actual fact, is carrying out such a process. Malta has been using such biodiesel in its heavy plant.

As far as waste water is concerned, investigations will be concentrated on electricity generation from biogas generated during the treatment process.

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

During 2003, Malta decided to proceed with testing the use of 100% biodiesel on its heavy plant. The biodiesel was produced from waste oil. The results are still being evaluated. It should be pointed out that difficulties in operation have been met.

No further measures have been taken, to date, to promote the use of biofuels.

*National resources allocated to the production of biomass for energy purposes other than transport*

As stated above, no agricultural resources are used for biofuels. Industrial and municipal waste streams will be directed towards reuse and composting rather than biofuel production, with the exception of waste oil.

*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 only form of biofuels used in Malta during 2003 consisted of biodiesel produced by a local company from waste industrial oil. This was utilised by Government in its demonstration project. Data is shown in the table below.

Table 1: Use of transport fuels in Malta 2003

	<b>Mlitres</b>	<b>Energy Content MJ/l</b>	<b>TJ</b>	<b>% of total</b>
Petrol	90.00	31.2	2808	47%
Diesel	90.40	35.7	3227	53%
Total fuel sales	180.40		6035	100%
Biodiesel	0.03	32.8	1	0.02%

*National indicative target for 2005*

Malta is keen to exploit its potential biomass availability. This is particularly in view of the total dependence on imported fuels and the environmental benefits of renewable energy sources, including biofuel. This is, however, unfortunately linked to the bio-degradable fraction of industrial and municipal waste. Commission reports, in fact, clearly show this.

Noting that biofuels can be used more cost-effectively elsewhere, other than transport, and that difficulties are being experienced with regard to the vehicles driven by bio-diesel, Malta is exerting caution in setting realistic interim targets. Biofuels are in fact being used cost-effectively.

Experience last year showed that biofuel accounted for 0.02% of road transport fuel.