

Malta's Annual Report for 2006 submitted to fulfil requirements of Article 4 of Directive 2003/30/EC on the promotion of biofuels and other renewable fuels for transport

Directive 2003/30/EC on the promotion of biofuels and other renewable fuels for transport requires Member States to prepare an annual report on:

- 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 biomass for energy uses other than transport; and
- 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.

Additionally, exclusively for the report covering the year 2006, Member States have to indicate their national indicative targets for the amount of biofuels to be placed on their national markets by 31 December 2010.

Background information

Given the scarce arable land available in Malta and the limited amount of fresh water resources, cultivation of crops for biofuels production is not a feasible or sustainable option. Currently, biodiesel produced from either locally sourced recycled waste cooking oil or imported vegetable oil is the only source of indigenously produced biofuel, and in this regard two privately owned companies in Malta have been very active in producing and promoting biodiesel for domestic consumption.

Recently, interest in the production of biofuels using marine resources such as algae as raw material has also been expressed.

Measures to promote the use of biofuels or other renewable fuels

Legislative instruments

Currently, the Use of Biofuels or Other Renewable Fuels for Transport Regulations (LN528/04) is the main legislative instrument regulating biofuels. These Regulations transpose Directive 2003/30/EC.

Proposed Legislation

In order to amplify the scope of the existing legislation so as to cover activities other than transport, and to create a legislative framework within which all operators of biofuels must operate, draft subsidiary legislation was published for consultation.

Together with this draft subsidiary legislation, a draft licence has also been prepared. The aim of this licence, which covers all activities related to biofuels, that is production, importation, storage, wholesaling and retailing is primarily intended to ensure quality standards, good

operational practices, safeguard health and safety and lay the basis for environmentally sound operations. It is believed that once this legislation comes into force, the biofuels market may increase its share of the fuel market through increased consumer confidence and accountability from the part of the operators involved.

Exemption from excise duty

As had occurred in previous years, the Maltese Government confirmed the current exemption from the payment of excise duty on the biomass content (i.e. the percentage element) in biodiesel. In 2006, total excise duty foregone to biofuels amounted to about Lm224,690.

Role of the Government and Authorities in the promotion of biofuels

Use of Biodiesel by government fleets: Various governmental entities including governmental departments, hospitals, government owned companies and several government authorities use biodiesel as a substitute for fossil-fuel derived diesel. Amongst such users, those with the highest consumption of biodiesel are the Malta Environment and Planning Authority, the Department of Works at Kordin and St Vincent de Paule Hospital.

Production of Biofuels through the processing of marine resources: Government is considering the production of biofuel from marine resources and is already looking at the possibility of tapping EU funding and involving other partners in order to fund projects in this sense and examine the potential feasibility of such a resource.

Participation of a Maltese Authority in an Intelligent Energy Executive Agency (IEEA) project: The Malta Resources Authority, which is the Authority responsible for the regulation of energy resources in Malta is participating as a co-beneficiary in an Intelligent Energy Europe Agency funded project on Carbon Labelling and pre-blending of bio-diesel for small EU states. The main aim of the part of the project pertinent to the Authority is to find ways on how to promote the use of biodiesel, disseminate information to fuel importers and fuel distributors on the potential carbon efficiency of biodiesel and educate the public.

National resources allocated to biomass for energy uses other than transport

Malta's potential for harvesting crops or growing woodland for producing energy from biomass is negligible due to both the limited availability of arable land and the scarcity of the water resource. In fact, Malta relies on desalination of seawater to produce potable water. However, also with respect to Council Directive 99/31/EC of 26 April 1999 in relation to strategy for the implementation of the reduction of biodegradable waste going to landfills, there exists a potential for energy production from waste treatment.

Treatment and Utilisation of Municipal Solid Waste as a biomass resource¹

A new plant for the processing of 35,000 tonnes of organic municipal solid waste is planned for 2008. The plant is expected to treat 71,000 tonnes of Municipal Solid Waste (MSW) and will

¹ A Draft Renewable Energy Policy for Malta – August 2006

incorporate a digestion plant with a capacity of 35,000 tonnes annually. Biogas generated through the digestion process is to be processed through a Combined Heat and Power plant to generate thermal and electrical energy. It is estimated that the plant will yield between 12,100 Nm³/day-18,200 Nm³/day (cubic meters/day at standard normal conditions), varying partly due to fluctuations in biogas, maintenance and down time of installation, and occurrences of excess biogas in the buffer which would have to be flared. Electricity produced may therefore range between 7–10 GWh/annum.

The waste treatment capacity will also be tripled by introducing a new plant in the Northern part of Malta and possibly, another one in Gozo resulting in around 24 GWh/annum electricity generation from biogas.

Energy will also be recovered from landfills. A conservative rating of the gas potential at the Ta' • wejra and G•allies landfills is of 200m³/h in 2006 rising to between 600m³/h and 800m³/h in 2010 staying at or above this level until 2023. The installation of a 300kW generator is planned for 2007/2008 to be supplemented by a further 0.5MW in 2010 and another 0.5MW in 2013.

Total sales of transport fuel and the share of biodiesel

As mentioned above, currently the only biofuel available in the market is biodiesel produced by two private companies. One company has been present on the market from its beginning and uses recycled waste cooking oil collected mainly from the hotel industry, as its raw material. The second company started operating in 2006 and uses imported vegetable oil as its raw material.

Biodiesel finds its main use as a replacement for petroleum diesel. Hence, its utilisation is mainly related to the same uses as diesel. This mainly occurs in the transportation and construction fields to power diesel-engine vehicles, to power boilers (various industrial uses and in hotels, hospitals for heating, etc), for power generation and bunkering. The following is a breakdown per sector of the biodiesel consumed in the Maltese islands during 2006.

Table 1. Consumption of Biodiesel per sector

Biodiesel retailed to the industry sector (Million Litres)	0.616
Biodiesel retailed to the transport sector (Million Litres)	1.066
Total Bio-Diesel Consumption (Million Litres)	1.682

Presently, only one company supplies biodiesel for the transportation sector. Up to 2005, the biodiesel retailed to the transportation sector used to be dispensed exclusively from a pump installed on a factory premises. As from April 2006, this private company reached an agreement with a number of petroleum filling stations owners for the retail of biodiesel from their pumps. Around 20 petroleum filling stations, equivalent to 25% of the 80 licensed petroleum filling stations, are therefore, now retailing biodiesel. Presently, petroleum filling stations are permitted to store and dispense 100% biodiesel only. It is left up to the individual consumer to decide upon

the amount composing the blend which is best suited for his vehicle. This practice is expected to provide a huge boost for the consumption of biodiesel by making the product more readily available to the public.

As shown in Table 1 above, the total amount of biodiesel sold for the transport sector was of 1.066 million litres. Considering standard figures for the calorific values of the fuels used in road transport, the share of biofuels used for road transport is as shown in the table below.

Table 2. Use of road transport fuels in Malta 2006 and the share of Biofuels

Fuel	Million litres	Energy Content MJ/l	Energy TJ	% of total
Petrol	85.261	31.2	2,660.10	44.27
Diesel	93.805	35.7	3,348.80	55.73
Total Fossil Fuel sales	179.066		6,008.90	100
Biodiesel	1.066	32.8	34.96	0.582

Biodiesel, therefore, accounted for 0.582% of total fuel used for road transport in 2006.

National indicative target for transport for 2010

After taking into consideration the amount of biodiesel produced during the last three years and after noting the annual increase in consumption; the national indicative target for Malta for 2010 is set to 1.25%.

This target is based on the following considerations:

- land and water resources scarcity for the production of energy crops used in biofuel production. It is envisaged that local biofuel production will still rely on such locally available raw material as waste cooking oil or imported vegetable oil;
- bio-Ethanol production is not seen as a viable option, at least at the current conditions and the share of biofuel is, therefore, to be reached by the consumption of biodiesel alone;
- fossil fuel consumption is assumed to remain steady and the 1.25% target is calculated against the total fuel sales (energy content) of 2006;
- discussions with producers in Malta to see their views on what outputs are expected to be produced in 2010; and
- current petroleum storage and retailing infrastructure remaining unchanged.