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Overview of Malta's Biofuel Sector and RED

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Report Highlights:
Malta is 99.5% dependant on fossil fuels; however, they are unable to sustain large-scale vegetable farming with the aim of fulfilling the country's fuel dependency. By 2020, Malta has to generate 10 percent of its electricity demand from renewable energy sources (photovoltaic panels, wind turbines, and wave technology) and must convert ten percent of the fossil fuels being used for transport to bio-fuels. Main sources of bio-fuels are derived from sewage water, landfills and used cooking oils. Used oil and grease is collected from the catering industry (hotels and restaurants).

General Information:

Overview of Malta Biofuel Sector

Malta is 99.5% dependant on fossil fuels. Unlike larger EU members, Malta cannot reasonably expect to meet the country's fuel needs thru large scale farming of biofuels.
The European Union commissioned The Climate Policy Tracker to issue a report on the greenhouse gases emitted by each member state and Malta was graded an F (A being the best grade and G the worst). Quantification of per capita CO_2 was used as a benchmark to rank each country in terms of how well it is meeting Kyoto Protocol targets. Malta was given an 'F' grade due to a per capita carbon footprint of 7.37 tons per year.

In response, the European Union has set a goal for Malta that, by 2020, Malta will have to generate 10 percent of its electricity demand from renewable energy sources such as photovoltaic panels, wind turbines, and wave technology. Additionally, Malta must convert ten percent of its transportation fossil fuel consumption to bio-fuels. Currently in Malta, bio-fuels are mainly derived from sewage water, landfills and used cooking oils. Used oil and grease is collected from the catering industry (hotels and restaurants present in Malta).

The national sewer discharge regulation (LN 378/05) stipulates that all catering establishments must install a grease trap to prevent sewers from getting blocked with grease and fat. Currently, most of the collected grease just ends up in landfills or what isn't collected ends up in the sea.

Malta's high dependency on imported fossil fuels for its' energy needs, its geographic location, and its international obligation to reduce greenhouse gas emissions, all have combined to make it an ideal candidate for research and investment in the production of alternative fuels as well as CO2 and NOX sequestration utilizing micro-algae. The Maltese Ministry for Resources and Rural Affairs (MRRA) has, therefore, mandated the Malta Intelligent Energy Management Agency (MIEMA) to develop a project to explore the feasibility of setting up a centre for the production of bio-fuels from marine algae in Malta. In the case of the extraction of bio-fuels from micro-algae, a local company (Altern) is working with a Dutch firm with substantial expertise obtained from 40 different test-plants worldwide.

Legislative Measures for the Promotion of Biofuels and Implementation of RED in Malta

In the first report under Directive 2003/30, Malta set for 2005 an indicative target of 0.3% for biofuels share of transportation fuel use. By the third report, Malta had modestly exceeded the EU target of 0.3%, with an actual share of 0.52%. Malta has had biofuels legislation in place since December 2004. The law on the 'Use of Biofuels or Other Renewable Fuels for Transport Regulations' set the 0.3% target by December 31, 2005, but consumption actually reached 770,000 liters of biodiesel (i.e. 200,000 liters more than the required 570,000 liters) by August 2005. In September 2007, Malta established a new mandate of 5%.

As previously mentioned, Malta is completely dependent on imported fuel. However, since 2004, the Maltese Edible Oil Refining Company EORC Ltd. has been converting cooking oils into biodiesel. The project involves the collection of used cooking oils from catering establishments and about 24,000 households that would have otherwise been drained into the sewage system. The project name is "Fat Chance" and the company KOSEPS is currently operating a plant capable of processing 3,000 metric tons a year and is considering opening another unit capable of processing 10,000 metric tons. Given the very limited quantities of biomass from agricultural sources available on the island, the only raw material that can be used for biofuels production is municipal or industrial waste. Malta is, however, looking at the possibility of producing biodiesel from algae in order to ensure the country's self-sufficiency in terms of available raw materials.

General status of implementation of the RES Directive 2009/28/EC in Malta

The following Maltese regulations transpose the EU's Renewable Energy Directive (28/2009/EC):

(i) Promotion of Energy from Renewable Energy Sources Regulations (Legal Notice 538 of 2010);
(ii) The Biofuels (Sustainability Criteria) Regulations (Legal Notice 553 of 2010); and
(iii) The Biofuels and Bioliquids Market Regulations to enter into force in the first quarter of 2012.

The following were amended to include provisions relating to the Renewable Energy Market:

-Legal Notice 68 of 2011 amending Legal Notice 278 of 2007;
-The Petroleum for the Inland (Wholesale) Fuel Market (Amendment) Regulations;
-Legal Notice 126 of 2011 amending Legal Notice 92 of 2010;
-The Guarantees of Origin of Electricity from High Efficiency Cogeneration and Renewable Energy Sources (Amendment) Regulations; and,
-Electricity Market Regulations L. N. 166 of 2011

Malta intends to achieve its 2020 renewable energy targets through a couple large-scale wind and waste to energy projects. The Maltese Government has identified the sites for the wind farm development with potentially minimal impact on the environment and has already started the Environmental Impact Assessments for these sites. Other innovative technologies are currently being investigated, such as wave and other sea energy experiments. Renewable energy technologies also will include solar photovoltaic systems, solar water heating, and micro-wind.

In 2007, the Malta Environment and Planning Authority issued a set of guidelines for the planning of solar applications. The Maltese government is certifying these types of installations. Concerning the transport sector, a biofuels substitution obligation has been imposed on importers/wholesalers of fuel for the transport sector. This percentage rises from 1.5% (by energy content) in 2011 to 10% by 2020.

In order to facilitate the uptake of renewable energy resources, financial incentives in terms of grants

on the initial capital investment have been made available for residential and non-residential sectors annually since 2010. The aim is to make these technologies more affordable to the public. One scheme is to promote energy efficiency and the use of renewable sources of energy in the domestic sector. The scheme administered by the Malta Resources Authority uses ERDF and national funds to offer grants on Solar Water Heaters and Photovoltaic systems.

Another scheme, administered by the Malta Enterprise, provides grants to industry and the commercial sector for energy efficient and renewable projects. The generation of electricity from renewable technologies can be more costly than conventional sources, so incentives are needed. The Maltese Government intends to provide capital grants for solar technologies, such as for solar water heating and solar photovoltaic systems. For the latter technology, the incentives have been further complimented by a feed-in tariff to ensure that the installation of such systems is also a competitive investment and funds are invested in innovative and environmentally friendly technologies.

The Feed-in Tariff Regulation LN 422/2010 is aimed at solar photovoltaic systems, however this is the first step before similar tariffs aimed at other grid connected renewable energy technologies are introduced, such as micro-wind. The introduction of a feed-in tariff replaced the previous net-metering arrangement, however, owners of the photovoltaic installations could still use the system for self-consumption and export the surplus electricity at the feed-in tariff. The introduction of the feed-in tariff increased the potential for exploitation of roofs available especially for premises with no consumption and hence with no incentive for net metering.

Please see attachment for:

Malta: Promotion of Energy from Renewable Sources Regulations (L.N. 538 of 2010).

http://mra.org.mt/wp-content/uploads/2012/08/19.Promotion-of-Energy-from-Renewable-Sources-Regulations.pdf

Date of text: **Consolidated version (as amended by Legal Notice 210 of 2012).**

Implements: Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC. - 23 April 2009 [LEX-FAOC088009]