



ENERSCAPES - Territory Landscape and Renewable Energies



Component: Context Analysis and Definition of Method

Investigation on the Different Regulatory Frameworks Regarding Territorial, Landscape and Energy Planning in Each Partner's Region

Name of the partner

MIEMA

Country

MALTA

Region

Person in charge

Yana Mifsud



Signature

Date

TASK 1- REGULATORY FRAMEWORK ON RES

Analysis of National, Regional and Local Legislation on Renewable Energy Sources

Please provide a general overview of the regulatory framework on RES, about its main objectives and in case how each law is linked to the others. If useful, please utilize schemes and diagrams.

General Overview (1500 characters maximum)

First of all, it is useful to find out what exactly constitutes 'RES' under local Maltese Law. The definition of RES as found under SUBSIDIARY LEGISLATION 423.19 PROMOTION OF ELECTRICITY PRODUCED FROM RENEWABLE ENERGY SOURCES REGULATIONS is '*renewable energy sources*" means *renewable non-fossil energy sources, that is, wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.*' All laws relating to RES make reference to this definition as found in the above-mentioned law.

Important to underline at this stage is to understand that practically all Maltese laws dealing with RES are in the form of subsidiary legislation, namely they are not primary sources of law. Nonetheless this element makes it very useful in the environmental law ambit because procedure for changing and updating these types of law (which is necessary in these contexts) is made easier and much faster than the rigorous process enjoyed by primary law.

Even though Malta has committed itself to an energy policy focused on the direction that national efforts to manage energy and energy issues appropriately by:

- Energy policy conforms to climate change objectives;
- Synergy and compatibility between energy policy and environmental planning including National Allocation Plan, draft Sustainable Development Strategy.
- Applying the same principles to other policies such as transport, research etc.
- Reducing reliance on imported fuels by development of RES and establishing stability in energy supply through interconnection with European systems, contingency planning to cater for short term interruptions

Throughout its commitment towards promotion of RES Malta has pledged investment in new generation plant at Delimara built to the best available technology. This plant will be built using a system known as 'smart metering' i.e. improving the distribution of system efficiency. Local RES commitment is also focused at improving energy efficiency of buildings, energy dependencies of transport and encouraging RES use especially through the use of incentives on small scale system such as solar water heaters, wind energy and PV systems. These incentives are the result of a collaboration between MRA (Malta Resources Authority) and EDRF funds, these include:

1. **Solar Water Heating System Grant Scheme:** This Scheme applies to the expenditure that is incurred on the purchase of a solar water heating system or solar collector purchased for domestic use and installed in Malta. To be eligible for this scheme, the applicant must have obtained planning permission (where required) for the installation. The building should also be covered by a planning permit.

While these government subsidies may encourage adoption, it is not realistic to expect a significant impact on the energy economy but are noteworthy measures in the ambit of RES.

Malta's commitment towards promotion of RES was consolidated further by Malta's accession in 2004 into the European Union, a constant advocate towards the environment and through the promotion of alternative fuel resources.

Despite such strong commitments legal mechanisms towards RES are infrequent and fragmented. Most prominent law relating to RES is the previously-quoted PROMOTION OF ELECTRICITY PRODUCED FROM RENEWABLE ENERGY SOURCES REGULATIONS (2004) aimed at the promotion towards the contribution of renewable energy sources to electricity production in Malta and the creation of a basis for future development.

Another piece of legislation targeted towards RES is a recent Legal Notice dealing with GUARANTEES OF ORIGIN OF ELECTRICITY FROM HIGH EFFICIENCY COGENERATION AND RENEWABLE ENERGY SOURCES REGULATIONS. The scope of these regulations is to establish a regulatory framework for the issuing of guarantee of origin certificates for electricity produced from high efficiency cogeneration and, or that produced from renewable energy sources.

USE OF BIOFUELS OR OTHER RENEWABLE FUELS FOR TRANSPORT REGULATIONS (31st December, 2004) giving effect to Directive 2003/30/EC of the European Parliament and of the Council of 8 May 2003 on the promotion of the use of biofuels or other renewable fuels for transport.



Please fill in one table for each law, regulation, or guideline. In TASK 1 please insert the main laws, regulations and guidelines dealing only with RES: if the rules referring to RES are established by an energy plan or programme please insert them in TASK 4.

RES - LAWS, REGULATIONS O GUIDELINES			
Law <input type="checkbox"/>	Regulation <input checked="" type="checkbox"/>	Guideline <input type="checkbox"/>	
Name PROMOTION OF ELECTRICITY PRODUCED FROM RENEWABLE ENERGY SOURCES REGULATIONS SUBSIDIARY LEGISLATION 423.19 (30th April, 2004)			
Legislative Reference <i>Please describe if the law or the regulation is a law transposition of an EU directive</i>			
This law is not a transposition of an EU Directive.			
Issuing Authority			
State <input type="checkbox"/>	Federal <input type="checkbox"/>	National Authority <input checked="" type="checkbox"/>	Region <input type="checkbox"/>
Municipality <input type="checkbox"/>	Province <input type="checkbox"/>	Protected Area Managing Authority	Other <input type="checkbox"/>
Name: Malta Resources Authority			
Regulatory Subject			
<i>Briefly specify which type/s of RES is/are mentioned in the law, regulation or guideline.. Is it about any type of RES? Otherwise, which type of RES is involved?. (1000 characters maximum)</i>			
This particular law caters for electricity produces by all RES, as described by the same law in Article 2 'electricity produced from renewable energy sources" means electricity produced by plants using only renewable energy sources, as well as the proportion of electricity produced from renewable energy sources in hybrid plants also using conventional energy sources and including renewable electricity used for filling storage systems, and excluding electricity produced as a result of storage systems'.			
The strength and importance of this law is the very fact that it is wide-encompassing and provides a much needed definition of RES as 'renewable non-fossil energy sources, that is, wind, solar, geothermal, wave, tidal, hydropower, biomass, landfill gas, sewage treatment plant gas and biogases.' This definition provides a list of all types of RES catered for in this L.N.			
Regulatory Summary			
<i>Write briefly the contents of the law/regulation/guideline (1000 characters maximum)</i>			
The purpose of these regulations is to promote the contribution of renewable energy sources to electricity production in			

Date

Regulatory Framework

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Malta and to create a basis for future development thereof. This L.N. focuses on establishing feasible national indicative targets for future consumption of electricity produced from renewable energy sources in terms of a percentage of electricity consumption. These 'feasible national indicative targets' are to be reviewed periodically by the corresponding national authority which in this case shall be the Malta Resources Authority. The same Authority shall issue guarantees of origin of electricity produced from renewable energy sources in response to a request made to it.

This guarantee of origin shall:

- (a) specify the energy sources from which the electricity was produced, the dates and places of production, and in the case of hydroelectric installations, indicate also the capacity;
- (b) enable producers of electricity from renewable energy sources to demonstrate that the electricity they sell is produced from renewable energy sources within the meaning of these regulations.

Moreover the same Malta Resources Authority has the duty under this law to authorize any procedure, which are applicable to production plants for electricity produced from renewable energy sources -

- (a) reduce, as much as possible, the regulatory and non-regulatory barriers to the contribution in electricity production from renewable energy sources,
- (b) streamline and expedite procedures at the appropriate administrative level, and
- (c) ensure that the procedures are objective, transparent and non-discriminatory, and take fully into account the particularities of the various renewable energy source technologies.

The same L.N. gives power to the National Competent Authority i.e. the Malta Resources Authority to carry out an investigation or otherwise, that any person subject to these regulations has contravened any of the provisions contained therein, it shall issue a compliance order to the person concerned, ordering him to comply immediately with the provisions of the said regulations. In fact any person who fails to abide by the provisions of a compliance order issued by the competent authority shall, without prejudice to any other liability under these regulations, the Malta Resources Authority Act, or any other law, be guilty of an offence and be liable, on conviction, to a fine (*multa*) of not less than two hundred and thirty-two euro and ninety-four cents (€232.94) and not more than two thousand and three hundred and twenty-nine euro and thirty-seven cents (€2,329.37) for each day during which the offence subsists: Provided that such aggregate fines (*multa*) shall not exceed the amount of twenty-three thousand and two hundred and ninetythree euro and seventy-three cents (€23,293.73).

Objectives of the Legislation regarding the Development of RES

Briefly list the objectives of the law/ regulation/ guideline (1000 characters maximum)

The objective of this law is to promote the contribution of renewable energy sources to electricity production in Malta and to create a basis for future development.

Rules and Legislation

Write briefly what type of rules are introduced by the law regulation/guideline (1000 characters maximum)

An innovative element introduced by this L.N. is establishing feasible national indicative targets for future consumption of electricity produced from renewable energy sources in terms of a percentage of electricity consumption.

Incentives and Resources

Does the law/regulation/guideline provide incentives or other benefits to promote the development of the RES?

If yes, what type of incentives/benefits? In what amounts? In case there is funding, write a short description concerning the type and the quantity of the funding. (1000 characters maximum)

This law does not provide for any incentives.

Compensations

Write briefly if the regulation provides for a monetary compensation or other types of trade off (1000 characters maximum)

The law does not provide for monetary compensation or any other type of trade off.

Duration

Please write if the law or regulation has a limited duration. (1000 characters maximum)

The law does not have a limited duration.

Other Limits

Write other limits, if there is any, that the law or regulation introduces for the development of the RES (1000 characters maximum)

The law does not provide any limits, rather it regulates the use of RES by introducing a system of compliance orders, failure to adhere to such will lead to a penalty system to a fine (*multa*) of not less than two hundred and thirty-two euro and ninety-four cents (€232.94) and not more than two thousand and three hundred and twenty-nine euro and thirty-seven cents (€2,329.37) for each day during which the offence subsists. Provided that such aggregate fines (*multa*) shall not exceed the amount of twenty-three thousand and two hundred and ninetythree euro and seventy-three cents (€23,293.73).

Moreover any person who contravenes any of the provisions of these regulations or of a licence or approval issued thereunder shall be guilty of an offence and shall, on conviction, be liable to a fine (*multa*) of not more than twenty-three thousand and two hundred and ninety-three euro and seventy-three cents (€23,293.73). Any person who, when information with respect to these regulations requested by the competent authority, knowingly or recklessly -

(a) gives any false, inaccurate or misleading information; or

(b) supplies incomplete information; or

(c) fails, without reasonable cause, to supply information requested within the time given; or

(d) prevents or hinders any investigation; or

(e) produces or furnishes, or causes or knowingly allows to be produced or furnished, any document or information which he knows to be false in any material respect, shall be guilty of an offence and shall, on conviction, be liable to a fine (*multa*) of not less than two hundred and thirty-two euro and ninety-four cents (€232.94) and not more than two thousand and three hundred and twenty-nine euro and thirty-seven cents (€2,329.37).

(3) Without prejudice to subregulations (1) and (2), where any person fails to comply with the provisions of these regulations for a period exceeding six months, the competent authority may revoke his or her licence.



Annotations or Other Significant Information

[Empty rectangular box for annotations or other significant information]

TASK 2 - REGULATORY FRAMEWORK ON LANDSCAPE

Analysis of National, Regional and Local Legislation on Landscape

Please provide a general overview of the regulatory framework on Landscape, about its main objectives and in case how each law is linked to the others. If useful, please utilize schemes and diagrams.

General Overview

The regulatory framework in Malta is currently subdivided into two areas, one related to Development and one related to the Environment. The primary legislation therefore is defined by the Development Planning Act and by the Environment Protection Act. These Acts are then supported by specific Legal Notices, which give more detail regarding the specific aspects of these two Acts. As long as they are within the context of the Primary Legislation, Legal Notices have the flexibility to be changed and amended as necessary without the need to change the primary legislation itself.

This dual system will however change in the very near future as both these Acts will become superceded by a new Act (Environment and Development Planning Act 2010) which will address the provisions of both of them together. This new Act has been approved by Parliament but is not yet in force.

The Development Planning Act establishes the Development Planning framework in Malta, the different functions of the Authority and the procedures that it uses to carry out its regulatory function.

The Environment Protection Act establishes the Environment Protection framework in Malta, the different functions of the Authority and the procedures that it uses to carry out its regulatory function.

The body responsible for the regulation in line with the provisions of these acts today is and will remain to be the Malta Environment and Planning Authority (MEPA), but more details on MEPA will be supplied as part of Task 5.

Please fill in one table for each law, regulation, or guideline. In TASK 2 please insert main laws, regulations and guidelines dealing only with Landscape: if the rules referring to Landscape are established by a programme or plan please insert them in TASK 5.

LANDSCAPE - LAWS, REGULATIONS OR GUIDELINES		n....
Law <input checked="" type="checkbox"/>	Regulation <input type="checkbox"/>	Guideline <input type="checkbox"/>
Name Act I of 1992 Development Planning Act		
Legislative reference This law is not a transposition of an EU Directive.		
Issuing Authority		
State <input checked="" type="checkbox"/>	Federal <input type="checkbox"/>	National Authority <input type="checkbox"/>
Municipality <input type="checkbox"/>	Province <input type="checkbox"/>	Protected Area Managing Authority <input type="checkbox"/>
Region <input type="checkbox"/>		
Other <input type="checkbox"/>		
Name: Parliament		
Landscape Subject The law concerns Development Planning in general, and relates to the total land and sea area in Malta.		
Regulatory Summary The Development Planning Act establishes the Development Planning framework in Malta, the different functions of the Authority and the procedures that it uses to carry out its regulatory function.		
Objectives of the Legislation regarding the Development/Protection of the Landscape <ul style="list-style-type: none"> • The promotion of proper planning and sustainable development of land and sea, both public and private; • The control of such development in accordance with development plans and planning policies approved in terms of the Act; • The carrying out of national mapping; • The regulation of alignment and levelling schemes and their interpretation on site. 		
Correlation Factors between Landscape and RES There are no correlation factors between Landscape and RES.		

Rules of the Legislation

The legislation establishes regulations related to Administration, Development Planning, Development Control, Enforcement Control, and Development Offences and Penalties.

Incentives and Resources

The Act does not provide incentives or other benefits to promote landscape protection. However, it provides for the establishment of a Directorate for Development Control and Enforcement.

Compensations

The Act does not foresee any monetary compensation or other types of trade off, especially in the case of introduction of RES.

Duration

The Act does not have a limited duration. However, it will soon be replaced by a new Act.

LANDSCAPE - LAWS, REGULATIONS OR GUIDELINES

n....

Law

Regulation

Guideline

Name Act XX of 2001 Environment Protection Act

Legislative reference

This law is not a transposition of an EU Directive.

Issuing Authority

State

Federal

National Authority

Region

Municipality

Province

Protected Area Managing Authority

Other

Name: Parliament

Landscape Subject

The law concerns Environment Protection in general, and relates to all aspects of the environment in Malta.

Regulatory Summary

The Environment Protection Act establishes the Environment Protection framework in Malta, the different functions of the Authority and the procedures that it uses to carry out its regulatory function.

Objectives of the Legislation regarding the Development/Protection of the Landscape

- The management of the environment in a sustainable manner;
- The taking of preventive and remedial measures to address and abate the problem of pollution in accordance with the polluter pays principle and the precautionary principle;
- The collaboration with other governments and entities in the protection of the global environment;
- The dissemination of information on the environment and the facilitation of participation by the public;
- The application of scientific and technical knowledge and resources;
- The sustainable management of wastes, their reduction, use and re-use and recovery of matter and energy;
- The safeguarding of biological diversity;
- The combating of all forms of pollution;
- The consideration of the environment as the common heritage and concern of humankind;
- The provision of incentives leading to a higher level of environmental protection.

Correlation Factors between Landscape and RES

There are no correlation factors between Landscape and RES.

Rules of the Legislation

The legislation establishes regulations related to Environment Protection, Authority, Sustainable Development, Licencing, Environmental Impact Assessment, Environmental Funding, Right to Information and Enforcement.

Incentives and Resources

The Act provides for the setting up of an Environment Protection Fund to finance studies, works and other activities to attain the objectives of the Act.

Compensations

The Act does not foresee any monetary compensation or other types of trade off, especially in the case of introduction of RES.



Duration

The Act does not have a limited duration. However, it will soon be replaced by a new Act.

TASK 3 - PERMITTING PROCEDURE

Analysis of the Permitting Procedures for RES Plant Implementation

Please provide a general overview of the Permitting procedures for RES Plant Implementation, about its main objectives and in case how each law is linked to the others. If useful, please utilize schemes and diagrams.

General Overview (1500 characters maximum)

The situation as it stands today does not have specific permitting procedures for RES Plant Implementation. Certain small-scale, domestic RES installations (like PV installations) require approval or notification to the local energy corporation (ENEMALTA) and the Malta Resources Authority, because they need to be connected with the local electrical grid system. On the other hand larger installations (such as wind turbines) require a normal building permit regulated by the 1992 Development Planning Act and approved by the planning directorate within MEPA (Malta Environmental Planning Authority). Strictly speaking there is no specific procedure that caters for these large installations, the process is that they are taken into consideration as if one is constructing a normal building. A normal Environmental Impact Assessment is undertaken.

Malta is aware that it lacks general permitting procedures for RES plant implementation in fact the Renewable Energy Policy for Malta calls for 'simple permitting and regulatory procedures' as well as a 'a one-stop shop authorisation arrangement will be established with overall responsibility for co-ordination of multiple permits, licences and authorisations currently being administered and issued by different agencies and entities (MEPA, MRA, Enemalta etc). In addition monitoring of the performance of new procedures established and the results attained will also be carried out.'

Please describe the steps needed to implement a RES plant, specifying if there are differentiations related to the size and the type of the plant, or the kind of the proposer. What are the different types of procedures to respect? What are the different law requirements that have to be respected?

If necessary, please repeat the description according to the different types of RES.

PERMITTING PROCEDURE		n....
RES Type	Any type of RES which is significant in size (mostly wind turbines).	
Procedure	Procedure for such RES plants is the normal development planning building permit.	

Authorizations

Which authorities are involved in the permission and how many subjects have to give an authorization? Please indicate for each type of permission who is in charge.

As mentioned above the local Environment and Planning Authority (MEPA) is competent to grant development permits also in the case of RES (albeit such permit demand is treated as a building permit rather than RES permit). MEPA is divided in two directorates; Environmental and Planning. A normal planning permit is issued and the responsible directorate is the Development Planning Directorate.

This Directorate is responsible for the promotion and control of proper land development, both public and private, in accordance with approved policies and plans. It seeks to achieve sustainable development throughout the Maltese Islands through the preparation and implementation of development plans and policies. This directorate is segmented into two divisions namely: the Forward Planning Division and the Development Services Division. The Development Control Unit within the Development Services Division is the engine house where the processing of development permit applications is carried out, from the pre-submission meetings to the preparation of planning application reports. This unit is also responsible for processing Development Notification clearances and with taking decisions on certain applications under delegated powers. A Major projects team handles the processing of larger scale developments and national projects.

An important directorate within MEPA which is specifically relevant for our purposes is the Environmental Directorate. This directorate is responsible for advising on issues related to environmental standards and policies, draws up plans and provides a licensing regime to safeguard and monitor the environment and controls the activities having environmental impact. The directorate is divided into 7 units. The Environmental Assessment Unit coordinates the EPD's assessment of development projects and the EPD's role on related matters. In particular, the unit manages: the EIA and Appropriate Assessment processes and technical assessment of environmentally-relevant development proposals. Among other related functions, the unit is also EPD's primary liaison with the Planning Directorate, with the HAC Natural Heritage Panel (NHAC), and with the SEA Audit Team, and also represents environmental interests in planning-related fora and in the formulation of environmentally-relevant legislation, policy and operating procedures.

Documentation

What kind of documentation is required? Are there application forms defined by law or suggested by public administrations?

No specific documentation is required. A normal planning permit.

Environmental Assessment

What type of environmental assessment is required? Explain in which cases.

Our law remains silent as regards RES permit procedure but as in the case with all development permits which may have environmental impact an EIA is required.

Other Types of Assessment

Are other types of assessment required? If yes, explain which and in what way.

No other assessment procedure is required.



Procedure ending

Which is/are the conclusive act/s of the procedure?

Procedure ends when Planning Directorate issues decision.

Procedure Duration

Estimated duration of the authorization process.

There is no established time frame for the duration of the authorization process. Generally time periods are long because of the work load of MEPA.

TASK 4 – PLANNING FRAMEWORK ON ENERGY MATTERS

Analysis of National, Regional and Local Plans or Programmes on Energy Matters

Please provide a general overview of the regulatory framework on energy matters, about its main objectives and in case how each law is linked to the others. If useful, please utilize schemes and diagrams.

General Overview (1500 characters maximum)

Malta is totally dependent on imported fuel for its energy requirements. Electricity is the main source of power. In 2001, three thermal power stations on the main island made up Malta's total installed capacity of 250 MW; two of them, Gozo and Comino, are supplied with electric power by means of submarine cables. Production of electrical energy in 2000 was 1.75 billion kWh, of which 100% was from fossil fuels. Consumption of electricity was 1.6 billion kWh.

The provision of a secure, competitive and affordable as well as environmentally and financially sustainable energy supply has always been a big challenge for Malta. This stems from the fact that Malta is an isolated island state both geographically and infrastructural. Malta's small size and high population density makes exploitation of RES very difficult. Renewable Energy Sources (RES) could play a key role for the Island economy. Little development of RES exists so far. However, the potential for solar and wind is substantial, though costs are high. The Maltese government is currently creating a framework for support measures. The targets that are being proposed in the RES2020 proposal for Malta are 10% RES. Solar thermal applications (for hot water requirements) are RES with highest penetration rate in Malta.

Notwithstanding these constraints investment in energy has never been more timely; Malta must ride the current economic challenge and diversify its energy supply, tap renewable and adopt a price structure that incentivises energy efficiency. We also need an electricity sector which guarantees security of supply. Our economy, the competitiveness of our country and job security are very much dependent on investment in this sector. All this considered Malta is faced with a greater challenge in the ambit of energy because of its lack of resources and small territorial size. Legally-wise Malta has received a significant push with its accession in the EU but Malta still has to adopt the bulk of the energy *acquis*, including legislation on the internal energy market (gas and electricity Directives), emergency preparedness, including building up oil stocks, and energy efficiency. The most important document in the ambit of energy locally is the 'Energy Policy for Malta' (April 2010). This policy document identifies six key policy areas to attain the stated policy objectives. These are: energy efficiency, reduction in reliance on imported fuels, stability in energy supply, improvement in our carbon footprint, efficient and effective delivery of energy and finally policy support to the energy sector.



Please fill in one table for each programme or plan.

ENERGY PLANNING – NATIONAL, REGIONAL AND LOCAL PROGRAMMES OR PLANS DEALING WITH RES		n....
Programme <input type="checkbox"/>	Plan <input checked="" type="checkbox"/>	
Name Energy Policy for Malta (April 2009)		
Legislative reference		
Proposing or Managing Authority		
State <input type="checkbox"/>	Federal <input type="checkbox"/>	National Authority <input checked="" type="checkbox"/>
Municipality <input type="checkbox"/>	Province <input type="checkbox"/>	Protected Area Managing Authority <input type="checkbox"/>
		Region <input type="checkbox"/>
		Other <input type="checkbox"/>
Name: Ministry for Resources & Rural Affairs		
Subject		
<p><i>Is it about any type of RES? Otherwise, which type of RES is involved? Briefly specify which type/s of RES is/are mentioned in the programme/plan (1000 characters maximum).</i></p> <p>The plan mentions that Malta is capable of utilizing the following RES:</p> <ul style="list-style-type: none"> - large scale wind farms (onshore, offshore), - medium and small scale wind farms (medium scale 20kW- 500 kW and small- scale < 20 kW), - solar - photovoltaic and thermal, - energy crops & waste, - landfill gas, - sewage treatment plant gas, - biogases and - heat pumps for heating and cooling. <p>The plan mostly elaborates on wind, solar and low-grade geothermal energy, biomass and other wastes.</p>		
Summary		
<p><i>Please write briefly the contents of the programme or the plan related with RES (1000 characters maximum).</i></p> <p>This plan aims at securing, competitively priced, and environmentally sound energy supply is a basic requirement for a competitive Maltese economy. Without an energy supply with these characteristics, sustained economic growth, employment and prosperity could be jeopardised. These objectives are all essential, though their relative importance differs. Indeed, in certain instances, they are clearly complementary, while in others they appear to be mutually competitive. Policy decisions sometimes involve tradeoffs between one objective and another. For example, improvement in energy efficiency will address all objectives of the energy policy. Similarly, investment in renewable energy sources addresses environmental protection and security of supply (though not necessarily competitive pricing). The importance of security of supply can be realised by considering the cost of energy not being available when</p>		

required by an end-user. Interruption of the energy supply, or threats of interruption, could lead to widespread disruption. Better security can be achieved by ensuring that energy sources are reliable, that markets are designed and regulated appropriately, and that energy systems are resilient to shocks through a combination of diversity and flexibility.

The availability of competitively priced high quality energy services has a significant effect on the Maltese economy. One can see this from the debates that ensue when endues prices are adjusted. Prices have an impact on the competitiveness of industry and services and on the achievement of the Lisbon Strategy objectives. They also have a direct impact on the life of the individual citizen. Where environmental responsibility is involved, there is a growing consensus on the need to ensure sustainable development, and that the measures proposed would not conflict with but rather complement this concept.

Objectives related to RES

Please list briefly the objectives of the programme/plan concerning the RES (1000 characters maximum).

Wind and solar applications contribute to climate change mitigation, though they may have significant adverse environmental effects, mainly visual. They may contribute towards competitiveness when the cost of electricity produced from PV's and wind farms becomes cheaper than the cost of conventionally produced electricity. Low-grade geothermal energy is a significant source for heating and cooling. It reduces reliance on less efficient conventional systems for heating and cooling.

Currently, the most cost-effective feasible technology for generating electricity locally is large onshore wind farms. Unfortunately, the onshore wind potential in Malta and Gozo is restricted due to various environmental and planning constraints. These include the cumulative visual and landscape impacts, impacts on the natural environment, lack of road access and interference with airport operations.

Offshore wind energy is more costly to install and maintain but offers key advantages over onshore wind farms. Wind speeds are usually higher and turbulence levels are lower for offshore sites further away from the coast. There are no logistical difficulties demanding the development of an upgraded road network to deliver the large wind turbines to the site of installation. Thus, wind turbines at sea can be bigger than those on land. Offshore wind farms have less potential to cause concern to neighbouring residents. In addition, they can protect the marine ecosystems by having the turbine foundation structures acting as artificial reefs. Offshore wind farms are currently the second best technology option in terms of costs. Proven offshore technology currently available on the market is only suitable for shallow waters (less than 30m depth). The Maltese waters are generally too deep for such technology, with the exception of a few shallow water reefs and coastal features close to the shore. The potential offered by the shallow water sites available is still worth considering.

Therefore, any developments would require mitigation on issues related to impacts on land and those relating to conflicts of use. The Government is in favour of onshore and offshore wind farm developments, as long as any planning and environmental impacts are acceptable. Deep offshore wind farm technology, for depths in the range of 50 to 200 m, would offer an enormous potential for Malta and Gozo. However since this technology is still in its research and development stage and is not expected to be available on a commercial scale within the next eight to 10 years Government is interested in research programs involving the testing of prototype deep offshore installations in the Maltese territorial waters.

Medium-scale wind turbines, with capacities ranging between 20 – 500 kW, and micro wind turbines, with capacities of less than 20 kW, do offer potential for wind exploitation on land. Medium-scale wind turbines would be more suitable than large-scale turbines for sites that are difficult to access and for which any significant road upgrading is not justified, either environmentally or economically. There are barriers for the uptake of small-scale wind farms in urban areas because of the planning constraints that are likely to originate due to visual impacts on the Maltese townscape as well as to noise issues. However, technological advances have led to the development of innovative wind turbines designed specifically for the urban environment. These turbines have improved aesthetic qualities and low noise emissions.

One disadvantage of smaller turbines is that they have to be installed in larger numbers to be able to contribute a significant share of clean energy. The cumulative visual impact could be high. Due to the intermittent behaviour of wind power, the conventional generation plant must provide a spinning reserve capacity to guarantee continuity of the electricity supply. Since Malta has an isolated grid, the spinning reserve capacity is limited. This in turn puts a limit on how much wind generation capacity can be introduced into the Maltese system. A cable interconnection with the European electricity grid would allow a larger wind capacity to feed into the local grid and provide the opportunity for Malta to export electricity generated in excess during periods of low local demand.

The PV resource potential in Malta is very large though it requires higher financial support. The electricity generation from PV systems occurs during daylight and in summer, this coincides with the occurrence of peak load demand. Therefore, PV systems can contribute to reduce the requirement of extra conventional generation during the peak loads. An additional benefit of PV systems is that they provide shade on rooftops, thereby reducing the demand for air-conditioning.

On a wider scale, solar energy for thermal applications (solar water heaters and potentially solar cooling) is another potential RES application. Various configurations exist including large scale Concentrated Solar Power. However, this technology requires a large footprint area that is an issue on our islands. It is proposed that a study be carried out about the potential of the use of low-grade geothermal energy for heating and cooling. These systems are able to transfer heat, to and from the ground and ground water, with minimal use of electricity. They would also reduce the demand for electricity used by conventional heating and air-conditioning units. The new directive for the promotion and use of energy from renewable sources also refers to aero thermal heat pumps, but the conditions under which such equipment would qualify are still to be defined.

The use of fuels derived from organic waste, such as bio diesel, will be beneficial from the environmental point of view of reducing used oil from entering the waste stream. It will also help reduce Malta's dependence on imported fossil fuel to a limited extent, thus improving the country's security of supply. Finally, producing bio diesel locally contributes towards a sustainable economy. Similarly, the production and use of biogas will be beneficial from the environmental point of view to reduce the amount of unprocessed nitrates and other elements ending up in the soil and water tables, causing only harm.

This policy area covers biomass, landfill gas, biogas from the treatment of sewage sludge and biogases. Biomass is 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 has negligible potential in producing biofuels from its own agricultural products. The limited freshwater resources, the high population density and poor soil fertility contribute to these factors. The cultivation of marine algae to produce oil rich biomass for biodiesel production may be possible but needs investigation.

Industrial, commercial and domestic waste are currently the only substantial sources of indigenous biomass. In this respect, Government policy so far has been:

- to reduce the quantity of waste and to encourage higher levels of reuse,
- to increase recycling and composting,
- reduce the quantity of waste directed to land filling,
- further develop energy recovery technologies;
- safe disposal of residues that cannot be otherwise managed.

Biofuels are liquid or gaseous fuels produced from biomass. There is potential for waste oil to be collected and converted to bio diesel. Mixed with fossil diesel, in ratios up to 5%, it can be used directly in recently marketed diesel vehicles. A further option currently being considered is the extraction of Biogas from Agricultural Waste through anaerobic digestion. Besides helping to solve Malta's current waste storage and related environmental problems, it will produce a considerable amount of Biogas. If in addition, if organic waste is added/mixed to agricultural waste, it is envisaged that the amounts of Biogas will increase extensively. Unfortunately, no values are available to date. The other by-product of this system is a 100% environmental friendly inert fertiliser that can be efficiently used back by the agricultural sector.

Currently bio diesel, produced from either locally sourced recycled waste cooking oil or imported vegetable oil, is the only type of biofuel available on the Maltese market. In this regard, local privately owned companies have been very active in producing and promoting bio diesel for local consumption. One of these companies supplies bio diesel for the transport sector. Around 30 petroleum filling stations, equivalent to about 40% of the total number of stations, are now retailing bio diesel. Presently petroleum filling stations can store and dispense 100% bio diesel only.

The leading document is EU Directive 2003/30/EC on the promotion of the use of biofuels or other renewable fuels for transport was incorporated into local legislation through LN 528 of 2004. The Directive promotes the use of biofuels or other renewable fuels to replace diesel or petrol for transport purposes in each Member State, with a view to contribute to such objectives as meeting climate change commitments, environmentally friendly security of supply and promoting RES.

The EU Directive 2003/30/EC requires the establishment of national indicative targets by Member States for biofuels and other renewable fuels to be placed on the market based on the energy content of all petrol and diesel for transport purposes. The target for 2005 was set to 0.3%. The actual figure however reached 0.52%. Similarly, the target for 2010 has been set to 1.25% and preliminary indications are that Malta will reach this target and possibly exceed it. Biomass is expected to contribute towards meeting the national 10% renewable energy in the final energy consumption in 2020. The total energy from solid waste, taking into consideration landfill gas, mechanical biological treatment plants (MBT's) and residue derived fuel(RDF), is projected to be around 60GWh in 2020.

Government will:

- recover energy from waste,
- continue to promote the manufacture of biofuels produced from indigenous sources, primarily waste biomass,
- monitor the use of biodiesel and amend strategy and targets accordingly,
- implement a Biogas plant and make good use of the by products,
- perform studies on the full potential of MSW as a means of conversion to energy and
- explore the possibility of marine algae cultivation to produce biomass for the production of biodiesel.

Limitations

Please write briefly what type of limitations are introduced by the programme/plan regarding RES (1000 characters maximum)

The plan introduces no limitations in relation to RES. The plan takes into consideration Malta's specific needs and capabilities and thus is within Maltese limits and ranges.

Actions

Please write briefly the actions introduced by the programme/plan regarding RES (1000 characters maximum)

Incentives and Resources

Does the programme/ plan provide incentives or other benefits to promote RES development?

If yes, what type of incentives/ benefits? In case there is funding, write a short description concerning the type and the quantity of the funding (1000 characters maximum)

This plan continues to confirm the need for Government to provide for incentives:

- for a modal shift of electricity consumption requirements, shifting some day operation to night off-peak time, by providing an attractive option for a cheaper night tariff for most consumers, complimented by the smart metering project,
- give incentives for the use of highly efficient cogeneration in particular sectors in 2010 based on the findings of the survey.

In the ambit of transportation the government's strategy to improve energy efficiency in transport also includes a number of measures aimed at encouraging the use of smaller, more efficient private cars and restraining their non-essential use. These measures also include financial incentives to encourage eco-driving.

Duration

Please write if the programme/ plan has a limited duration (1000 characters maximum)

There is no limited duration for this plan.

Elements Structuring the Programme/Plan

Please list studies, maps, rules or drawings annexed to the programme/plan related with RES (1000 characters maximum)

No specific studies related with RES are found in this plan.

Annotations or Other Significant Information



TASK 5 - PLANNING FRAMEWORK ON LANDSCAPE IN RELATION WITH RES

Analysis of National, Regional and Local Plans or Programmes on Landscape in Relation with RES

Please provide a general overview of the regulatory framework on landscape in relation with RES, about its main objectives and in case how each law is linked to the others. If useful, please utilize schemes and diagrams.

General Overview

RES does not have any specific regulatory framework from a landscape point of view. The same regulatory framework that applies to Environment and Development Planning is applicable to RES.

Please refer to Task 2 for a more detailed explanation of the regulatory framework with respect to Environment and Development Planning.

Please fill in one table for each programme or plan. Please insert only landscape plans or programmes dealing with RES.

LANDSCAPE PLANNING - NATIONAL, REGIONAL AND LOCAL PLANS OR PROGRAMMES ON LANDSCAPE	n....
Programme <input type="checkbox"/> Plan <input checked="" type="checkbox"/>	
Name Structure Plan for the Maltese Islands 1990	
Legislative Reference Development Planning Act 1992	
Proposing or Managing Authority State <input type="checkbox"/> Federal <input type="checkbox"/> National Authority <input checked="" type="checkbox"/> Region <input type="checkbox"/> Municipality <input type="checkbox"/> Province <input type="checkbox"/> Protected Area Managing Authority <input type="checkbox"/> Other <input type="checkbox"/>	
Name: Planning Authority	
Subject This is a Strategic Plan which covers the whole landscape area of Malta. It is policy based and only has an indicative Key Diagram. Policies cover a number of sectors, including the Built Environment, Housing, Social and Community Facilities, Commerce and Industry, Agriculture, Minerals, Tourism, Recreation, Transport, Conservation and Public Utilities. Environmental considerations are taken across the sectors.	

Summary

There is no specific content related to RES.

Objectives Related to Landscape and RES

There is no specific content related to Landscape and RES.

Limitations

There is no specific content related to limitations regarding landscape and RES.

Actions

There is no specific content related to actions regarding landscape and RES.

Incentives and Resources

The plan does not provide incentives to promote landscape development related to RES.

Duration

The Structure Plan for the Maltese Islands has a 20 year horizon, but should have been updated during the period.

Elements Structuring the Programme/ Plan

The plan does not include studies, maps, rules or drawings related to RES.

LANDSCAPE PLANNING - NATIONAL, REGIONAL AND LOCAL PLANS OR PROGRAMMES ON LANDSCAPE		n....
Programme <input type="checkbox"/>	Plan <input checked="" type="checkbox"/>	
Name Planning Guidance for Micro-Wind Turbines, May 2010		
Legislative Reference Directive 2009/28/EC on the promotion of the use of energy produced from renewable energy sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC		
Proposing or Managing Authority		
State <input type="checkbox"/> Federal <input type="checkbox"/> National Authority <input checked="" type="checkbox"/> Region <input type="checkbox"/> Municipality <input type="checkbox"/> Province <input type="checkbox"/> Protected Area Managing Authority <input type="checkbox"/> Other <input type="checkbox"/>		
Name: Malta Environment and Planning Authority		
Subject		
This policy document focuses on wind energy as a source of renewable energy. This policy document discusses and provides policy guidance on micro-wind turbines, the smallest range of turbines, with a generating capacity of less than 20kW.		
Summary		
The document outlines the international and local background on the issues related to renewable energy policy guidance. Existing legislation and policy frameworks with regards to renewable energy sources are then assessed, followed by proposals for policy guidance on micro-wind turbines. It provides guidance, within the renewable energy policy framework, on the location, siting and design of roof mounted and tower mounted micro-wind turbines with criteria to mitigate potential impacts on ecology, visual impact and other possible causes of nuisance to surrounding receptors.		
Objectives Related to Landscape and RES		
<ul style="list-style-type: none"> • To guide the siting of the turbines towards locations where possible amenity impacts can be mitigated; • To guide the siting of the turbines towards locations where the benefits from the technology can be maximized; and • To restrict their development in sensitive locations including habitats of sensitive species, visually sensitive landscapes, townscapes and buildings of architectural/historical importance and noise sensitive receptors. 		
Limitations		
There is no specific content related to limitations regarding landscape and RES.		

Actions

There is no specific content related to actions regarding landscape and RES.

Incentives and Resources

The guidance does not provide incentives to promote landscape development related to RES.

Duration

There is no time frame indicated for this guidance.

Elements Structuring the Programme/ Plan

The plan includes specific policies, but does not include maps or drawings related to RES. It identifies the parameters and subject zoning areas where micro wind turbines may be considered to be located.

TASK 6 – TERRITORIAL PLANNING FRAMEWORK IN RELATION WITH RES AND LANDSCAPE
Analysis of Territorial Planning which Facing the Relationship Between RES and Landscape

Please fill in one table for each plan or programme.

In this task please insert **only** Territorial Programmes or Plans facing the relationship *between RES and landscape*.

TERRITORIAL PLANNING: NATIONAL, REGIONAL AND LOCAL PLANS OR PROGRAMME	n...
Programme <input type="checkbox"/> Plan <input checked="" type="checkbox"/>	
Name Planning Guidance for Micro-Wind Turbines, May 2010	
Legislative reference Directive 2009/28/EC on the promotion of the use of energy produced from renewable energy sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC	
Proposing or Managing Authority State <input type="checkbox"/> Federal <input type="checkbox"/> National Authority <input checked="" type="checkbox"/> Region <input type="checkbox"/> Municipality <input type="checkbox"/> Province <input type="checkbox"/> Protected Area Managing Authority <input type="checkbox"/> Other <input type="checkbox"/> Name:	
Subject This policy document focuses on wind energy as a source of renewable energy. This policy document discusses and provides policy guidance on micro-wind turbines, the smallest range of turbines, with a generating capacity of less than 20kW.	
Summary The document outlines the international and local background on the issues related to renewable energy policy guidance. Existing legislation and policy frameworks with regards to renewable energy sources are then assessed, followed by proposals for policy guidance on micro-wind turbines. It provides guidance, within the renewable energy policy framework, on the location, siting and design of roof mounted and tower mounted micro-wind turbines with criteria to mitigate potential impacts on ecology, visual impact and other possible causes of nuisance to surrounding receptors.	
Objectives related to the relationship between RES and landscape <ul style="list-style-type: none"> • To guide the siting of the turbines towards locations where possible amenity impacts can be mitigated; • To guide the siting of the turbines towards locations where the benefits from the technology can be maximized; and • To restrict their development in sensitive locations including habitats of sensitive species, visually sensitive 	

landscapes, townscapes and buildings of architectural/historical importance and noise sensitive receptors.

Rules and regulations

Please write briefly what type of rules are introduced by the plan or the programme (1000 characters maximum)

It provides guidance, within the renewable energy policy framework, on the location, siting and design of roof mounted and tower mounted micro-wind turbines with criteria to mitigate potential impacts on ecology, visual impact and other possible causes of nuisance to surrounding receptors.

Incentives and compensations

The guidance does not provide incentives to promote landscape development related to RES.

Timing

There is no time frame indicated for this guidance.

Annotations or other significant information