Malta Resources Authority

Strategic Environmental Assessment on an Energy Policy for Malta

Report I:

Scoping Report

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SEA of an Energy Policy for Malta: Scoping Report

March 2010

Report for: Malta Resources Authority

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2nd Floor, BSL Centre Triq Birkirkara San Gwann SGN 4197

Tel. / Fax: 21378172 - 77 - 80 Email: <u>info@adi-associates.com</u> Web: www.adi-associates.com



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GLOSSARY

CO₂ Carbon Dioxide

EIA Environmental Impact Assessment

EC European Commission

EU European Union
GHG Green House Gases

GRDP Greening Regional Development Programme IREA International Renewable Energy Agency

LN Legal Notice

MDGs Millennium Development Goals

MCAST Malta College of Arts, Science and Technology MEPA Malta Environment and Planning Authority

MRA Malta Resources Authority

MW Mega Watts

NEEAP National Energy Efficiency Action Plan NGO Non-Governmental Organisation

NREAP National Renewable Energy Action Plan

NRP National Reform Programme
OP Operational Programme

PDS Plan / Programme Description Statement

PV Photo Voltaic

RES Renewable Energy Source

SEA Strategic Environmental Assessment

UN United Nations

UNCLOS United Nations Convention on the Law of the Sea



SCOPING REPORT

INTRODUCTION

This is the Scoping Report for the Strategic Environmental Assessment (SEA) of the Energy Policy for Malta covering the entire territory of the Maltese Islands. The aim of the Scoping Report is to set out the framework for the SEA, including setting the context of the SEA, establishing the baseline, setting the SEA objectives and indicators for the assessment, and identifying any potential significant impacts of the Policy. The Report will also discuss the proposed contents of the Environmental Report and the next stages in the SEA process.

Strategic Environmental Assessment

- 2. European Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment requires that a SEA of a wide range of plans and programmes is carried out prior to the implementation of the plan or programme. The objective of the "SEA Directive" is to provide a high level of protection of the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans with a view to promoting sustainable development. SEA comprises:
 - Preparing an Environmental Report on the likely significant effects of the draft plan;
 - Consulting on the draft plan and the accompanying Environmental Report;
 - Taking into account the Environmental Report and the results of consultation in decision making; and
 - A discussion of how the results of the environmental assessment would be taken into account in the Plan or Programme.
- 3. The information to be included in the Environmental Report includes:
 - A description of the baseline environment;
 - Links between the plan and other relevant policies, plans, programmes, and environmental objectives;
 - An identification of existing environmental problems affecting the plan;
 - The plan's likely significant effects on the environment, including issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climate, material assets, cultural heritage, landscape, and the interrelationship between such factors:
 - The mitigation measures envisaged;



- A description of the alternatives considered and those discarded in favour of the selected action(s);
- Monitoring measures envisaged; and
- A non-technical summary.
- 4. The SEA Directive 2001/42/EC has been transposed into national legislation by the SEA Regulations, 2005 (Legal Notice 418 of 2005). Although there are many similarities between the Directive and the SEA Regulations, the latter require that:
 - A Plan / Programme Description Statement (PDS) is submitted to the Competent Authority when a proponent intends to prepare a plan that is likely to require a SEA;
 - A Scoping Report is produced and submitted to the Competent Authority and consultation is carried out on the PDS and the Scoping Report; and
 - Consultations on the Scoping Report and the Environmental Report are carried out in accordance with the time frames set out in the Regulations and/or as agreed with the Competent Authority.
- 5. Guidance on SEA for Malta has not yet been published. The Scoping Report therefore draws on other European Guidance namely, the GRDP's (2006) "Handbook on SEA for Cohesion Policy 2007- 2013", the Commission's "Implementation of Directive 2001/42 on the Assessment of the Effects of Certain Plans and Programmes on the Environment" and the UK's (2005) "A Practical Guide to the Implementation of the SEA Directive".

Malta's Energy Policy

- 6. The Energy Policy for Malta (hereafter referred to as 'the Policy') sets out Government's policy in the energy sector based on the information currently available. The Policy is based on the following three overriding, and horizontal objectives:
 - Security of supply:
 - Competitively priced high quality energy services; and
 - Environmental responsibility.
- 7. The Policy describes six policy areas that are further divided into sub-areas. Each sub-area is further divided into measures for implementation. These are summarised below.

Policy Area 1: Energy Efficiency

8. This Policy Area is prescribed as follows:



Government will encourage and facilitate the achievement of increased energy efficiency in electricity generation and distribution and in energy end-use and will lead by example.

- 9. Energy efficiency will help to achieve the following objectives as identified in the Policy document:
 - Reduce dependence on a particular source of energy thus contributing towards security of supply
 - Reduce energy bills and potentially contribute towards enhanced the country's competiveness
 - Reduce emissions and depletion of natural resources thus reducing the impact on environment.

Policy Area IA: Efficiency in electricity generation and distribution

Measures

Ensure that Enemalta and any other electricity producers seek and implement ways to increase the efficiency of the electrical power generation plants, including Enemalta investments in 2009

Require that Enemalta, as the Distribution System Operator, improves the efficiency of the distribution network, in line with a long term Distribution Plan to be completed in 2009

Ensure that decisions on the required new generation capacity are taken and implemented starting in 2009

Require that Enemalta, as the sole supplier of electricity in Malta, implement demand management measures intended to decrease the discrepancy between peak and minimum loads, such as time differentiated tariffs in its tariff scheme

Promote the generation of electricity produced from high-efficiency cogeneration plant, particularly in industry, that uses heat and power in its manufacturing process. An updated survey of the potential will be carried out in 2009, and a pilot project started soon after

Promote efficiency in water use since this will contribute to reducing electricity demand, a new water saving campaign to start in 2009

Policy Area 1B: Energy end-use efficiency

Measures

Coordinate all current initiatives and propose new initiatives within a regularly updated, holistic NEEAP¹ intended to achieve 9% energy savings by 2016, in line with directive 2006/32/EC²

Adopt exemplary energy efficiency practices in the public sector

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¹ National Energy Efficiency Action Plan

² Directive 2006/32/EC of the European Parliament and of the Council of 5 April 2006 on energy end-use efficiency and energy services



Implement Legal Notice 261 of 2008 which came into force in January 2009, and develop and adopt legislative and administrative instruments to achieve further energy efficient and environmentally friendly buildings and services

Evaluate efficient street lighting measures, controlling both the consumption and light pollution in 2009

Give 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

Policy Area IC: Energy Efficiency in Transport

Measures

Support initiatives at EU level to promote the manufacture and marketing of more efficient vehicles and components

Ensure that transport policy and its implementation aim to improve efficiency in the transport sector with particular emphasis on public transport systems

Promote the use of more efficient or environmentally friendly alternative fuels, for transport and/or modes of transportation

Apply improvements to the road networks, especially in congested areas during peak hours

Promote e-working and tele-work to reduce workforce mobility

Evaluate the possibility to utilise electricity from renewable energy sources, for vehicle traction

Consider the introduction of Intelligent Traffic Management Systems aimed in improving traffic circulation on the network, giving priority to public transport in congested areas and providing real time travel information to assist travellers in their transport decisions

Work actively at all levels for quick implementation of Single European Sky (SES) aimed to reduce the distances and provides flight routes at optimum altitudes

Encourage car sharing and car pooling

Policy Area 2: Reducing Reliance on Imported Fuels

10. Policy Area 2 is prescribed as follows:

Government will support the sustainable development of sources of renewable energy, while continuing to provide opportunities in oil exploration

- 11. This Policy Area aims to fulfil the set objective through
 - The use of renewable sources of energy which contribute towards reduction in emissions and contribute positively although marginally towards security of supply



 The continuation of the oil& gas exploration effort since domestic oil& gas sources would increase the diversification of primary sources of energy reducing dependency on foreign primary sources.

Policy Area 2A: Renewable sources of energy

Measures

Continue to implement a strategy for the promotion of RES to meet 2020 targets and to identify which cost efficient efforts are necessary to establish and achieve longer term targets

Keep under review and modify support mechanisms for RES electricity, if necessary

Policy Area 2Ai: Wind, Solar and Low-Grade Geothermal Energy

Measures

Promote onshore and offshore wind farms and put forward concrete projects in 2009

Continue to promote small-scale and medium-scale wind turbine installations

Ensure the development of the electricity interconnection with the European grid to allow a high capacity of wind power generated locally and enable Malta to import renewable energy generated in non-EU member states

Continue to promote PV systems for the domestic, commercial and industrial sectors

Continue to promote solar thermal systems

Promote geothermal systems for heating and cooling

Evaluate alternative schemes and mechanisms, including but not limited to feed-in tariffs, also to attract foreign investment and overcome the barriers limiting the capacity of the present installations based on relative consumptions. This will be an ongoing exercise designed to make appropriate RES projects in Malta attractive for investment

Consider providing a share in PV solar parks investment, in assigned public areas, to investors who have no access to their own solar potential. This proposal being studied for possible implementation in 2010.

Policy Area 2Aii: Biomass and Other Waste

Measures

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

Explore the possibility of marine algae cultivation to produce biomass for the production of biodiesel

Policy Area 2B: Oil exploration



Measures

Seek to intensify exploration by oil companies

Negotiate with neighbouring countries, where disputed boundaries exist, to enable oil exploration to take place in currently disputed areas

Policy Area 3: Stability in energy supply

12. Policy Area 3 states:

Government will seek to diversify the current reliance on oil products while ensuring that contingency plans are in place to cater for short-term disruption in oil supply. Malta will interconnect with the European electricity system pursue the realisation of the necessary natural gas supply infrastructure.

13. This will be in line with the following objective:

- Malta, being an isolated system and fully dependent on the import of fossil fuels, needs to diversify its energy sources through the interconnection with the European electricity system and the realisation of the necessary natural gas supply infrastructure as soon as feasible.
- the implementation of strategies for exceptional contingencies outside its control related to fuel supplies shortage in a feasible manner

Policy Area 3A: Diversification: interconnection and alternative sources

Measure

Pursue the realisation of the required infrastructure for the provision of a natural gas supply

Ensure the implementation of an electricity interconnection with Sicily as soon as feasible

Policy Area 3B: Planning for disruption

Measures

Ensure that as far as possible, the institutions, information, hardware and infrastructure are available, ready, and coordinated so as to perform efficiently and expeditiously in any emergency, while leaving the freedom and flexibility to respond to any circumstance as it arises and as best thought fit

Policy Area 3C: International action

Measures



Measures

Actively support international initiatives that will:

- Promote political and economic stability in the main producer countries;
- o Improve the climate for energy sector investment, encourage more openness and transparency in international energy markets, and
- Ensure the efficient and sustainable use of energy resources

Continue to strengthen its diplomatic ties with supplier and producer countries of crude oil and derived products

Continue to follow actively this product and seek opportunities to benefit directly by tapping energy sources for its own use and also take economic and business advantage from the development of the energy infrastructure in the region

Policy Area 4: Reducing the emissions from the energy sector

14. Policy Area 4 states:

Government will seek that the commitment to reduce the emissions from the energy sector including the reduction of the national carbon footprint as well as the decrease in the emissions of other pollutants is reflected in the policies and legislation.

- 15. The following objectives should thus be achieved:
 - Address climate change through the reduction of GHG emissions and in particular the reduction of the national carbon footprint; and
 - Decrease the emission of pollutants from the combustion of fossil fuel to improve air quality is essential for our health and the environment.

Policy Area 4A: Reducing the national carbon footprint

Measures

Ensure that operators in the energy sector operate more efficiently

Support the implementation of the NEEAP to reach the target of 9% savings in 2016

Seek that Malta reaches its renewable energy targets in a sustainable manner

Support the introduction and use of lower carbon fuels in the supply of energy especially in power generation

Implement demand side management to reduce consumption of energy

Implement effectively the minimum performance in buildings regulations

Policy Area 4B: Better fuel quality

16. Implementation of this Policy Area centres on enforcement of regulations (see Energy Policy).

Policy Area 5: Delivering energy efficiently and effectively

17. Policy Area 5 states:



Government will ensure maximum competition possible within the limits proposed by the market, while ensuring that operators deliver the best quality of service at the cheapest possible prices through market forces complemented by robust regulation

18. This is in line with the following:

Opening the energy market for competition and introducing a variety of options as energy sources for specific needs will enhance the delivery and quality of the services.

Policy Area 5A: Competition and regulation

Measures

Ensure that the appropriate regulatory oversight is maintained

Regulate the energy sector using practices and policies that are coherent

Impose minimum and the least intrusive bureaucratic obligations

Ensure the minimum duplication and conflict with existing structures, while aiming towards affordability of energy and consumer protection

Open up the market to competition where possible

Policy Area 5B: Open up the fuel sector to competition

Measures

Continue to reform the fuel market by adopting the necessary legal, administrative, fiscal, economic measures consistent with its obligations, economic, environmental and social considerations and strategic concerns

Establish satisfactory design and operating standards for operators in the fuel market

Monitor and enforce compliance to standards and fair competition

Continue the commercialisation of Enemalta's Petroleum assets and monitor the transition in the gas sector

Policy Area 5C: An effective electricity sector

Measures

Ensure, through effective regulation, that the electricity sector operates at a sustainable manner and deliver at affordable prices with due regard to the environment

Promote competition in the generation market

Take measures to ensure security of supply, quality of service, customer and environmental protection, and ensure the financial sustainability of electricity through an adequate tariff structure

Ensure that electricity generation coming from renewable energy is given priority provided this does not compromise the stability of the electricity distribution



Policy Area 6: Ensure that the energy sector can deliver

19. Policy Area 6 states:

Government will ensure that fiscal policy and policy in education and research support the general objectives of ensuring security of supply, environmental protection and competitiveness

Policy Area 6A: Fiscal policy

Measures

Continue to implement the transitory arrangements for energy taxation as agreed with the ${\sf EU}$

Use fiscal policy to promote environmental and other Government priorities in the energy sector

Policy Area 6B: Electricity Tariff Policy

Measures

Continue to ensure that the electricity tariff structures are transparent and nondiscriminatory, by requiring timely audited reports and cost justification with every tariff revision request

Continue to ensure that there is no cross-subsidisation between consumer groups Use other fiscal measures to ensure affordability of electricity prices and incentivise investment

Ensure adequate assistance to deserving vulnerable consumers

Continue to promote tariff structures that encourage energy efficiency and conservation such as more focused dual tariffs, eco reduction mechanisms or other measures

Policy Area 6C: Education and research

Measures

Promote research projects of direct benefit to Malta, and best exploit the specific conditions, particularly climatic ones in Malta

Develop analytical (energy modelling scenarios, indicators) and sector monitoring tools to develop perspectives on long-term demand and supply

Support the build-up of technical expertise in the field of energy technologies through the University of Malta and Malta College of Arts, Science and Technology (MCAST)

Continue to follow the activities of the International Renewable Energy

Agency(IRENA) and other similar agencies and seek opportunities for joint ventures in research and development

Policy Area 6D: Investment and industry promotion



Measures

Promote investment in the oil and gas sector, and in renewable sources of energy and energy efficiency, and pursue job creation in the energy industry, serving both Malta and other countries

Through attractive incentives, draw investors in setting up both the manufacturing and the operation of equipment harvesting energy from RES, and energy conservation

THE SEA PROCESS

- 20. The first stage of the SEA process is scoping. The scoping sets out the context for the assessment, methodology and defines the scope of the SEA. It is one of the most important stages in the process as it identifies the issues for consideration in the Environmental Report. The Scoping Report is being undertaken by Adi Associates Environmental Consultants Ltd. The Team is working closely with the Malta Resources Authority. MRA on behalf of the Government of Malta is responsible for the overall coordination of the Energy Policy. The Government of Malta remains the sole "owner" of this policy.
- 21. During the development of the Scoping Report, the following entities were consulted:
 - The Malta Environment and Planning Authority (MEPA), specifically technical personnel on Environmental Assessment³, Climate Change, and Air Quality⁴; and
 - The Environmental Health Policy Coordination Unit within the Department of Environmental Health⁵.
- 22. The Scoping Report will be made available to the identified stakeholders and the public. The identified stakeholders include:
 - Office of the Prime Minister;
 - Ministry for Resources and Rural Affairs;
 - Ministry of Finance, the Economy and Investment;
 - Ministry for Infrastructure, Transport and Communications;
 - Ministry for Education, Culture, Youth and Sport;
 - Ministry of Foreign Affairs;
 - Malta Environment and Planning Authority;
 - Transport Malta Authority(TM) including Land transport Malta Maritime Authority; Civil Aviation Directorate;

³ Meeting held with Josianne Abela Vassallo and Charlene Smith of MEPA's Environmental Assessment Unit on 5th February 2010.

⁴ Meeting held with Christina Mallia, Saviour Vassallo, and Mark Scerri on 1st March 2010.

⁵ Meeting held with Christine Balluci, Miriam Grech, Antonella Grima, and Dorianne Grech on 5th March 2010.



- Malta Air Traffic Services Ltd;
- Malta International Airport(MIA);
- Malta Standards Authority;
- Department of Environmental Health;
- National Statistics Office;
- Consumer and Competition Division;
- Building Industry Consultative Committee;
- Consumer Affairs Council;
- Institute for Sustainable Energy;
- Malta Intelligent Energy Management Agency;
- Malta Council for Science and Technology;
- Enemalta Corporation;
- Water Service Corporation;
- WasteServ Malta Ltd;
- Malta Enterprise;
- NGOs (Biological Conservation Research Foundation(BICREF), Birdlife Malta(BM), Din I-Art Helwa (DLH), Flimkien Ghal Ambjent Ahjar (FAA), The Malta Ecological Foundation, Friends of the Earth(Malta), Greenpeace Mediterranean, Light Pollution Awareness Group(LPAG), Institute of Waste Management (IWM), Malta Bat Conservation Society(MBCS), Malta Chamber of Scientists (MCS), Malta Energy Efficiency and Renewable Energies Association (MEEREA), Nature Trust Malta(NTM), Moviment Graffiti;
- Local Councils Association;
- Renewable Energy Association of Malta;
- Malta Tourism Authority;
- Malta Communications Authority;
- Armed Forces of Malta;
- Superintendence of Cultural Heritage; and
- The three major political parties.



23. Various guidance documents (see above) recommend that the SEA process should start at the same time as the preparation of the Energy Policy. Although a first draft of the Energy Policy has been developed, this document has already been updated once, and further changes are expected both during and as a result of the SEA process.

RELATION OF THE DRAFT ENERGY POLICY FOR MALTA TO OTHER NATIONAL DOCUMENTS & LEGISLATION

- 24. Schedule 3 of the SEA Regulations requires a discussion of the "relation [of the plan] with existing legislation, policies, and other plans and programmes and their objectives, with information on potential synergies or conflicts". **Table I** provides a list of the policies, plans, and programmes relevant to the Energy Policy, which have been analysed.
- 25. The analysis has been subdivided into four main categories:
 - (i) International Commitments: this category covers the highest-level environment and sustainability policy framework within which Malta must work. It includes a selection of global commitments, such as those arising from the Millennium Development Goals (MDGs), UN Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol, EU energy and climate change policy as well as some international conventions. In the case of European Union Directives already transposed into national legislation, the Directives per se will not be discussed however reference will be made to recently published EU Directives and Decisions relevant to the energy sector which have not yet been transposed into national legislation; the section on national legislation is described below;
 - (ii) National Environmental & Planning Documents including the Structure Plan for the Maltese Islands, the National Sustainable Development Strategy (2007-2016), and the National Reform Programme (2008-2010). The review provided herein summarises the key issues raised; further information can be obtained from the original documents;
 - (iii) Sectoral Policies and Strategies: this section covers highest-level policy and strategy documents published by the Government, such as the National Strategic Plan. Rather than summarise entire documents this review seeks to emphasise the key sustainability objectives and priorities;
 - (iv) National legislation: no attempt will be made to assess the individual regulations, as is done at the project level EIA (Environmental Impact Assessment). However, the main areas of concern for the Energy Policy will be highlighted. Given the scale (and evolutionary nature of this field) this review is not exhaustive and represents a current (March 2010) snapshot.



Table I: Analysis of Related Plans, Programmes, and Legislation

Plan, Programme, Legislation	Description	Implications for the Energy Policy			
I. International Commitments	I. International Commitments				
The UN Millennium Declaration and Millennium Development Goals (MDGs)	The United Nations Millennium Declaration arose from the meeting of UN Heads of State in New York, September 2000. The Declaration was aimed at revitalising international efforts to tackle critical development issues, and led to agreement on, and adoption of, the eight Millennium Development Goals (MDG). Of relevance to the SEA is the seventh MDG: ensure environmental sustainability.	This is a national commitment and the Energy Policy must play a role in its realisation.			
UN Framework Convention on Climate Change (UNFCCC) and Kyoto Protocol	The ultimate objective of this Convention, and any related legal instruments that the Conference of the Parties may adopt, is to achieve stabilisation of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a timeframe sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened, and to enable economic development to proceed in a sustainable manner. An important international agreement linked to the United Nations Framework Convention is the Kyoto Protocol committing 37 industrialised countries and the European community to take action against Climate Change by setting binding targets for reducing GHG emissions. Malta is a non-Annex I party to the United Nations Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol (KP). Therefore, it does not have any direct legally binding commitments to limit or reduce its national emissions of greenhouse gases under these international instruments. It does, however, support efforts to reduce greenhouse gas emissions and is bound by EU legislation. Malta, by a letter dated 16 April 2009, submitted a proposal to amend Annex I to the Convention by adding the name of Malta to the list of countries contained in that annex.	The Energy Policy makes specific reference to address mitigation to climate change; the Convention is also mentioned.			
Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)	Malta is a party to the Bern Convention. The Convention aims to ensure conservation of wild flora and fauna species and their habitats. Special attention is given to endangered and vulnerable species, including endangered and vulnerable migratory species specified in appendices. The Parties to the Convention must undertake to adopt all appropriate measures to ensure the conservation of the habitats of the wild flora and fauna species. Such measures should be included in the Parties' planning and development policies and pollution control, with particular attention to the conservation of wild flora and fauna. They should also undertake to promote education and disseminate general information concerning the need to conserve species of wild flora and fauna and their habitats.	Although not directly relevant, the Energy Policy should be aware of the endangered and vulnerable species, including marine species of flora and fauna in Malta and ensure that the Plan is not in conflict with measures for their protection and conservation and those of			



Plan, Programme, Legislation	Description	Implications for the Energy Policy
		their habitats.
The United Nations Convention on the Law of the Sea, 1982	The ability to deploy and utilise installations or structures in the marine environment is essentially one of property rights. The basis of ownership and property rights within the marine environment emanates from the provisions of the United Nations Convention on the Law of the Sea, 1982 (UNCLOS).	The implementation of the Energy Policy (e.g. cable to Sicily, offshore wind farm) could result in impacts to the marine environment; this infrastructure should operate within the
	UNCLOS came into force on 16 th November 1994 and among its provisions, it conveys rights to coastal states ⁶ , while imposing certain duties, among which is environmental protection ⁷ and safety to navigation.	objectives of UNCLOS including aspects related to marine pollution, waste management and conservation of living
	UNCLOS establishes the legal status of the territorial sea, of the air space over the territorial sea and of its bed and subsoil. It also sets down rules for the passage of ships through the seas and distinguishes between passenger ships, commercial ships and warships. It establishes the rights, jurisdiction and duties of the coastal State in the exclusive economic zone.	resources.
	Within harbour areas, the placing of any sort of installation, even moorings, falls under the jurisdiction of harbour authorities (in Malta's case, the Malta Maritime Authority), whose permission is required prior to the placing of any such structures (see National Legislation below). The Convention defines "pollution of the marine environment" as "introduction by man, directly or indirectly, of substances or energy into the marine environment, including estuaries, which results or is likely to result in such deleterious effects as harm to living resources and marine life, hazards to human health, hindrance to marine activities, including fishing and other legitimate uses of the sea, impairment of quality for use of sea water and reduction of amenities". However, it excludes from its definition of "dumping" the disposal of wastes derived from the normal operations ofother man-made structures at sea and their equipment. Other relevant aspects of the Convention include the provisions on Protection and Preservation of the Marine Environment (Part XII Arts 192-196), and EIA (Art. 206).	
	The protection of the marine environment is addressed in Part XII of the Convention. States have the obligation to protect and preserve the marine environment. With regards to marine pollution States are to take "all measures consistent with this Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source, using for this purpose the best practicable means at their disposal and in accordance with their capabilities, and they shall endeavour to harmonise their policies in this connection". The Convention applies to all sources of pollution including the release of toxic, harmful or noxious substances, pollution from vessels, and pollution from installations and devices operating in the marine environment. The measures taken to prevent pollution should include those necessary to protect and preserve rare or fragile ecosystems as well as the habitat of depleted, threatened or endangered species and other forms of marine life. Pollution from vessels in further addressed in Article 211.	
	Like other Conventions, UNCLOS calls for an assessment of environmental impacts for planned activities that may cause substantial pollution of or significant and harmful changes to the marine environment.	
The Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean, 1976 (the Barcelona Convention)	This Convention, known as the Barcelona Convention, requires the Contracting Parties to "individually or jointly take all appropriate measures in accordance with the provisions of this Convention and those Protocols in force to which they are party to prevent, abate, combat and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area and to protect and enhance the marine environment in that Area so as to contribute towards its sustainable development" (UNEP, 2004 ⁸).	The application of the precautionary and "polluter pays" principles, the obligation on the Parties to carry out and promote impact assessments, protect and preserve biological diversity, and access to information and public
	The Convention, as revised in 1995, strives to "take all appropriate measures to prevent, abate and to the fullest possible extent eliminate pollution of the Mediterranean Sea Area caused by dumping from ships and aircraft or incineration at sea." This is in line with similar moves in other	participation are of relevance to the

⁶ Article 56

In the exclusive economic zone, the Coastal State has:

⁽a) sovereign rights for the purpose of exploring and exploiting, conserving and managing the natural resources, whether living or non-living, of the waters superjacent to the seabed and of the seabed and its subsoil, and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds;

⁽b) jurisdiction as provided for in the relevant provisions of this Convention with regard to:

⁽i) the establishment and use of artificial islands, installations and structures;

⁽ii) marine scientific research;

⁽iii) the protection and preservation of the marine environment;

⁽c) other rights and duties provided for in this Convention.

⁷ Article 194(1)

States are required to take "...all measures consistent with [the] Convention that are necessary to prevent, reduce and control pollution of the marine environment from any source".

⁸ http://www.unep.ch/seas/main/med/medconvii.html. As accessed in March 2005.

⁹ The Convention for the Prevention of Marine Pollution from Ships and Aircraft (1972).

¹⁰ The Convention of the Protection of the Marine Environment of the Baltic Sea Area (1974 revised in 1992).



Plan, Programme, Legislation	Description	Implications for the Energy Policy
	international and regional conventions (e.g. the London Dumping Convention, the Oslo Convention ⁹ , and the Helsinki Convention ¹⁰), and is based on the precautionary principle, which has set a new level of priority in emerging international legislation, including EU Directives. These various amendments include the extension of the Convention's geographical field of application to the coast, the application of the precautionary and "polluter pays" principles, the obligation on the Parties to carry out and promote impact assessments, protect and preserve biological diversity as well as combat pollution from cross-border movements of dangerous waste, and access to information and public participation (EU, 2005 ¹¹).	implementation of the Energy Policy (e.g. cable to Sicily, offshore wind farm).
The Protocol of the Barcelona Convention concerning Specially Protected Areas and Biological Diversity in the Mediterranean, 1999	This Protocol, promulgated by the Contracting Parties to the Barcelona Convention in 1999, aims to protect, preserve, and manage in a sustainable and environmentally sound way the areas of particular natural or cultural value of the Mediterranean through the establishment of Specially Protected Areas (SPAs), and to protect, preserve and manage threatened or endangered species of flora and fauna. To date, no SPAs have been designated in Malta under this Protocol.	Its relevance to the implementation of the Energy Policy lies in its requirement for EIA for any industrial or other projects that could significantly affect protected areas and species and their habitats (Article 17 of the Protocol).
The Convention on Biological Diversity, 1992	The Convention on Biological Diversity, also known as the Rio Convention, was enacted in 1992. Its objective is to "conserve the maximum possible biological diversity for the benefit of present and future generations and for its intrinsic value". This pact among the vast majority of the world's governments sets out commitments for maintaining the world's ecological underpinnings while maintaining economic development. The Convention establishes three main goals: the conservation of biological diversity, the sustainable use of its components, and the fair and equitable sharing of the benefits from the use of genetic resources. Relevant aspects of the Convention are the emphasis on the sustainable use of components of biological diversity, the requirement for EIA, and the inclusion of biodiversity issues.	The sustainable conservation of resources in the marine environment must be considered in the drawing up and implementation of the Energy Policy.
	A direct result of the Rio Convention was the concept of Agenda 21 – a global partnership for sustainable development. Agenda 21 addresses today's pressing problems aiming to prepare the world to meet its challenges. It reflects a global consensus and political commitment at the highest level on development and environment cooperation. Its successful implementation is first and foremost the responsibility of Governments but the broadest public participation and the active involvement of the non-governmental organisations and other groups should also be encouraged. National strategies, plans, policies, and processes are crucial in achieving this (UNEP, 2005 ¹²).	
	Agenda 21 has four sections:	
	Social and economic dimensions;	
	Conservation and management of resources for development;	
	Strengthening the role of major groups; and	
	Means of implementation.	
EU's Biodiversity Action Plan, 2008	This document aims to facilitate and encourage Member States to reach targets set and implement outstanding measures required under a number of environmental Directives with an aim to safeguarding biodiversity including the Habitats Directive and the Water Framework Directive.	The Energy Policy should remain mindful of potential impacts on biodiversity. These will be assessed through the SEA.
EU energy and climate change policy, 2008: 20-20-20 targets	The EU adopted an integrated energy and climate change policy in December 2008, aimed at achieving a low carbon, energy efficient economy as part of the action towards a sustainable future. The goals of this EU policy are better expressed in the so called 20-20-20 targets as follows:	The Energy Policy has to be aligned with these new commitments and contribute towards facilitating their achievement.
	Decrease the EU overall greenhouse gases by 20% over 1990 levels (30% if international agreement is reached) by 2020;	
	Reduce the EU overall energy consumption by 20% by 2020 through increased energy efficiency; and	
	Achieve a share of 20% renewable energy in the EU overall gross energy consumption by 2020	
	The energy and climate change policy has resulted into a number of EU Directives, decisions which translate these goals into commitments for the EU Member states.	
Directive 2009/29/EC of the European Parliament and of the Council of 23 April 2009 amending Directive	This Directive intends to extend and improve the EU emissions trading scheme (EU ETS) applicable from 2013.	The effect of this Directive is that large installations, which in Malta include the generation plant of Enemalta will have to buy

Europa website. Accessed on http://europa.eu.int/scadplus/leg/en/lvb/|28084.htm; March 2005.

12 UNEP Earthwatch website, 2005. Accessed at http://earthwatch.grid.unep.ch/agenda21/ in March 2005.



Plan, Programme, Legislation	Description	Implications for the Energy Policy
2003/87/EC so as to improve and extend		the CO ₂ allowances through auctioning. An
the greenhouse gas emission allowance		amount of allowances which will decrease
trading scheme in the Community		every year up to 2020 will be allocated to Malta for auctioning.
Decision No 406/2009/EC of the	This decision sets targets for Member States for greenhouse gas emissions that do not fall within the scope of the EU ETS.	The GHG emissions from the non EU ETS
European Parliament and of the Council		sector in Malta cannot increase by more than
of 23 April 2009 on the effort of		5% (over the 2005 level) by 2020
Member States to reduce their greenhouse gas emissions to meet the		
Community's greenhouse gas emission		
reduction commitments up to 2020.		
Directive 2009/28/EC of the European	This directive sets out new renewable energy targets for EU Member States aimed at reaching the overall EU share of 20% of energy from	Malta has an obligation to reach a 10% share
Parliament and of the Council of 23	renewable energy sources by 2020. Member States may comply with their obligations under this Directive either by investing in renewable	of renewable energy in the energy
April 2009 on the promotion of the use	energy sources and/or using the flexible mechanisms provided by the same Directive such as statistical transfers and participation in joint	consumption by 2020 (including a separate
of energy from renewable sources and	projects in other Member States or in non-member states subject to a number of conditions.	10% target of renewable fuel in transport)
amending and subsequently repealing		with interim targets. There is also an
Directives 2001/77/EC and 2003/30/EC		obligation to submit the National Renewable
		Energy Action Plan (NREAP) to the EU
		Commission by 2020. Malta submitted its
		forecast document, entitled Report on Plans to
		Achieve the Set RES Target of 10% by 2020 in
		January 2010. This document provides the
2. National Environmental & Plannin	g Documents	framework for the NREAP.
A Sustainable Strategy for the Maltese	The Sustainable Strategy is centred on four main themes:	Sustainable development principles must be
Islands 2006-2016	Managing the environment and resources;	included in the Energy Policy.
	Promoting sustainable economic development;	6, 1 1,
	Fostering sustainable communities;	The Energy Policy should reflect all the
	Cross-cutting strategic issues.	relevant sustainable development challenges
		contained in the Sustainable Strategy.
	Within these sectors the following priorities are identified:	The Energy Policy should be responsive to the
	The Environment	actions proposed in the Strategy.
	I. Climate Change: take steps to reduce greenhouse gas emissions through transport and energy policies that seek to promote environmental	
	protection, competitiveness, and security of supplies and, as a result, decouple the rate of growth of Green House Gas (GHG) emissions	
	from economic growth.	
	2. Air Quality: take remedial action to control emissions of air pollutants and achieve compliance with European standards;	
	3. Nature and Biodiversity: halt loss of biodiversity by 2010, and achieve management of protected areas by 2008;	
	4. <u>Groundwater</u> : adopt a policy that safeguards the quality of groundwater resources to protect human health, and satisfy the requirements for human use and achieve good quantitative status by 2015;	
	5. Seawater: sustain compliance with the Bathing Water Directive and achieve compliance with the Barcelona Convention standards;	
	6. Waste: prevent and minimise waste by achieving EU waste-related objectives and targets, reviewing Malta's Waste Management Strategy by	
	2007;	
	7. <u>Land use</u> : protect, maintain, and improve the urban and rural environment and through the planning system protect the open countryside	
	from uses, particularly residences, which can be more appropriately located in urban areas; 8. <u>Transport</u> : reduce car ownership rates to the EU average by 2014. Attain 1995 bus patronage levels by 2014 (40 million passengers);	
	o. Transport. Teduce car ownership races to the LO average by 2014. Attain 1773 bus patronage levels by 2014 (40 million passengers);	
	The Economy	
	9. Economic Growth: adopt policy measures so that the GDP (Gross Domestic Product) per capita in real terms grows at a rate that will	
	enable the Maltese economy to converge towards the EU average.	
	10. Employment: create employment opportunities to generate income and improve the quality of life of the population, taking into	
	consideration environmental and social impacts, and adopt policy measures so that the ratio of total employment to the working age	
	population in Malta converges with the EU average and reaches at least 57% by 2010;	
	11. <u>Labour productivity</u> : adopt policy measures to increase average labour productivity at a rate of 1% per annum over the EU average by	
	2010, while attempting to balance wages, taxation, and productivity, in collaboration with the social partners.	



Plan, Programme, Legislation	Description	Implications for the Energy Policy
Plan, Programme, Legislation	 Society 12. Poverty reduction: reduce or at least sustain the current level of 15% of the population at risk of poverty and decrease the ratio of population aged over 65 at risk of poverty from 20% to 15%, by 2010; 13. Labour force participation of women: adopt policy measures so that the labour force participation rate of women increases from 33% to 40.7% by 2010; 14. Health: decrease ratio of overweight/obese population in line with the EU average by 2010 by, amongst other actions enhancing the focus on healthy living and prevention, to reduce the need for curative care; 15. Education: continue to adopt measures to decrease the early school-leavers rate to 35% by 2010. Cross Cutting Issues 16. Spatial development plan: by 2010 draw up an integrated spatial development plan to take forward the National Strategy for Sustainable Development, with the participation of major stakeholders; 17. Economic Instruments: gradually adjust the present income tax regime so that the ratio of green taxation to total taxation reaches the EU average by 2010; 18. Enforcement: by 2008, put in place an audit of enforcement arrangements to assess the adequacy of the current enforcement mechanisms and to promote integration of responsibilities and reduction of overlaps. 	Implications for the Energy Policy
	 Implementation 19. Institutional setup: by 2008 put in place a permanent structure, appropriately staffed and funded, to revise and implement the National Strategy for Sustainable Development, on an ongoing basis, under the auspices of the National Commission for Sustainable Development, and hold an annual Conference with participation of major stakeholders to critically evaluate progress relating to the strategy; 20. Sustainability indicators: by 2008, establish and fund an entity responsible for compiling and evaluating sustainability indicators. This entity should work closely with the National Commission for Sustainable Development and the National Statistics Office. 	
Structure Plan for the Maltese Islands, 1990	 This is the national planning document that sets out the development framework for the Maltese Islands for the twenty-year period to 2010. Its' three goals are: I. To encourage the further social and economic development of the Maltese Islands, and to ensure as far as possible, that sufficient land and support infrastructure are available to accommodate it; 2. To use land and buildings efficiently, and consequently to channel urban development activity into existing and planned development areas, particularly through rehabilitation and upgrading of the existing fabric and infrastructure thus constraining further inroads into undeveloped land, and generally resulting in higher density development than at present; 3. To radically improve the quality of all aspects of the environment of both urban and rural areas. 	The Energy Policy must remain aware of the broad goals of the Structure Plan.
National Reform Programme, 2008-2010	The National Reform Programme (NRP) aims to set out a comprehensive strategy to deliver growth and jobs in line with the refocus of the Lisbon Agenda agreed to in the Spring European Council. Several political, economic, social, technological, and environmental factors affect Malta's economic growth and international competitiveness and hence, the Island's employment growth potential. The main thrusts of this cycle of the NRP are: Unlocking business potential; Investing in knowledge and innovation; Energy and climate change; and Investing in people and modernising labour markets.	The Energy Policy should be cognisant of these priority actions.
3. Sectoral Plans & Policies		1
Operational Programme 1, 2007-2013	This document identifies the overall strategy for utilising funds under the European Regional Development Fund and the Cohesion Fund assigned to Malta during the 2007-2013 programming period.	Energy features prominently as an area of concern in this Programme, and even identifies a specific project, namely to reduce emissions from the Delimara power station, as a priority for funding.
Utilities Topic Paper, 2002	The Utilities Topic Paper discusses the energy sector and the need to increase fuel storage facilities and improve energy infrastructure whilst assessing environmental and social impacts. The Topic Paper identifies that renewable energy will necessarily play a more important role in future developments again highlighting the need to assess potential accompanying environmental and social impacts from such developments.	The Energy Policy must remain aware of potential environmental and social impacts from proposals in the energy sector as highlighted by the Topic Paper.
National Report on the Strategic Action Plan for the Conservation of Maltese Coastal and Marine Biodiversity, 2002	This Report identifies priority actions in the field of marine and coastal biodiversity. These actions include the preparation of species and habitat action plans, declaration of marine and coastal protected areas, data compilation, monitoring proposals, upgrading research equipment, and effective enforcement.	The implementation of the Energy Policy should be cognisant of the requirements in the field of biodiversity.



Plan, Programme, Legislation	Description	Implications for the Energy Policy
National Energy Efficiency Action Plan (2008-2016)	The aim of this Action Plan is to promote energy efficiency under Malta's EU obligations. The Action Plan is divided into three phases, comprising three years each: o Phase I: 2008-2010; o Phase II: 2011-2013; and o Phase III: 2014-2016. In each of these phases, the Action Plan aims to achieve savings of 3% of the average energy consumption of the base period (September 2001-September 2006) as a result of improved energy efficiency resulting in a gradual reduction of total consumption by 9% until 2016.	Energy Policy measures should complement and support measures set out in this Action Plan.
National Allocation Plan (NAP II) for Malta (2008-2012)	The development of a National Allocation Plan is one of the requirements under the Emissions Trading Scheme Directive. Malta includes only two emitters under the Directive (the two power stations). In order to mitigate any disproportionate impact resulting from potential new developments that may fall under the remit of this Directive, Malta has proposed a new entrants reserve. The allocations foreseen in the reserve shall be cancelled if they remain unused during the trading period.	Relevant measures and actions deriving from the implementation of the Energy Policy must take this Plan into consideration.
Draft Solid Waste Management Strategy for the Maltese Islands, 2009	This strategy presents a number of measures for the treatment and management of solid waste.	The Energy Policy includes measures that are in line with some of the measures laid out in the waste management strategy.
National Strategy for Policy and Abatement Measures Relating to the Reduction of Greenhouse Gas Emissions, 2009	This strategy, drawn up by the Climate Change Committee presents 87 recommendations with an aim to mitigate and embark upon adaptation measures to minimise impacts from climate change, particularly those arising from greenhouse has emissions.	The Energy Policy aims to complement the recommendations developed in this strategy.
4. National Legislation		
Constitution of Malta	The Constitution of Malta (Section 9) declares that the State shall safeguard the landscape and the historical and artistic patrimony of the Nation. These are the only aspects of the environment referred to in the Constitution, underlining the importance of the landscape and historical heritage.	Landscape and historical heritage must be recognised as important assets in the Energy Policy where relevant especially in implementation.
Development Planning Act, 1992	This Act regulates and controls the use of land, and in particular requires that changes of use and development of land be subject to permission granted by the Malta Environment & Planning Authority; such permissions may be subject to conditions.	Projects resulting from the Energy Policy must conform to the requirements of the Development Planning Act.
Environment Protection Act, 2001	The Act requires everyone together with the government to protect the environment and to assist in the taking of preventative and remedial measures to protect the environment and manage natural resources in a sustainable manner. Various duties that fall to the government are established including: 4(a) to manage the environment in a sustainable manner by integrating and giving due consideration to environmental concerns in decisions on socioeconomic and other policies; 4(b) to take such preventive and remedial measures as may be necessary to address and abate the problem of pollution and any other form of environmental degradation in Malta and beyond, in accordance with the polluter pays principle and the precautionary principle; 4(e) to apply scientific and technical knowledge and resources in determining matters that affect the environment; 4(g) to safeguard biological diversity; 4(h) to combat all forms of pollution; 4(i) to consider the environment as the common heritage and common concern of humankind; and 4(j) to provide incentives leading to a higher level of environmental protection.	The Energy Policy should stress: a) the importance of protecting the natural and human environment from pollution, b) prevention at source; c) conservation of resources; d) safeguarding protected areas and buildings; and e) educating people.
Malta Resources Authority Act, 2001	The Malta Resources Authority Act establishes the powers of the Malta Resources Authority whose regulatory functions centre around water, energy, and mineral resources. In relation to energy specifically the Authority shall under provision 4(2)(a): (i) promote, encourage and regulate the harnessing, generation and use of all forms of energy; and (ii) encourage the use of alternative sources of energy and for such purpose in accordance with such regulations as may be prescribed, to impose levies on energy produced by non renewable sources and grant subsidies in connection with the production of energy from renewable sources and in relation to petroleum (provision 4(2)(d): (i) secure that adequate provision and reserve stocks of petroleum and gas is available at all times; regulate the distribution, sale, exportation or disposal in any other manner of fuels supplied for bunkering; for the purposes of this paragraph 'bunkering' and 'fuel' shall have the same meaning assigned to them by article 2 of the Bunkering (Fuels) Tax Act	The Energy Policy is under administration of the Malta Resources Authority.
Marine Pollution (Prevention and Control) Act	This Act should be the main legal source under Maltese law to address marine pollution but despite being amended three times, it has never come into force. The role of the Maritime Authority in this respect is without prejudice to the provisions of the Environment Protection Act, which enables the Minister for the Environment, to issue regulations on marine pollution, with MEPA acting as the competent authority. No regulations on marine pollution control from sea-based sources have ever been issued under the Environment Protection Act.	Not relevant yet as it has not come into force.
Territorial Waters and Contiguous Zone Act, 1971	The Territorial Waters and Contiguous Zone Act (Chapter 226) was enacted in 1971 (and subsequently amended in 1975, 1978, 1981, and 2002) "to extend the territorial waters of Malta and to make provision for a contiguous zone". The Act declares the territorial waters of Malta as	The Energy Policy takes into account Malta's territorial waters and the possibility of



Plan, Programme, Legislation	Description	Implications for the Energy Policy
	being "all parts of the open sea within twelve nautical miles of the coast of Malta measured from low-water mark on the method of straight baselines joining appropriate points".	extending this territory to allow for investigation of oil reserves.
	The Act empowers the Prime Minister to make regulations to control and regulate the passage of ships through the territorial waters and to regulate [Art. 7(1)]:	
	Safety of navigation and marine traffic,	
	The protection of navigational aids, facilities and other installations;	
	The protection of cables and pipelines;	
	The conservation of marine living resources;	
	The prevention of infringement of fishery laws;	
	The preservation of the environment;	
	The prevention, reduction and control of marine pollution;	
	Marine scientific research and hydrographic surveys;	
	The prevention of infringement of customs, fiscal, immigration, or sanitary laws; and	
	The arrest, detention, and seizure of ships to ensure compliance with laws and regulations.	
	Although this Act provides for wide-ranging powers through enactment of regulations, none have been issued under this Act to date.	
Legal Notice 114 of 2007, Environmenta Impact Assessment Regulations	This Legal Notice requires that an Environmental Impact Assessment is carried out for certain developments that may have an impact on the environment.	Projects resulting from the Energy Policy must be screened to ensure that an EIA is carried out if required by legislation.
Legal Notice 418 of 2005, Strategic Environmental Assessment Regulations	The SEA Regulations require that certain plans and programmes are subject to an environmental assessment prior to their implementation.	The Energy Policy is undergoing an SEA.
Legal Notice 311 of 2006, Flora, Fauna and Natural Habitats Protection Regulations, 2006 and Government Notices 161 of 2007, 112 of 2007, 1138 of 2005	These Regulations transpose the Habitats Directive and designate Special Areas of Conservation including Marine Protected Areas. The legislation calls for the protection of species and habitats and the setting up of a NATURA 2000 network.	The Energy Policy must ensure that its implementation does not threaten areas designated as protected areas.
Legal Notice 116 of 2005 Legal Notice 116 of 2005 Freedom of Access to Information on the Environment Regulations, 2005	This legislation enables the public to have access to information on the environment that is held by public authorities.	The Scoping Report and Environmental Report for the SEA on Malta's Energy Policy will be published for public consultation.
Legal Notice 165 of 2002 Integrated Pollution Prevention & Control Regulations, 2002	These Regulations prescribe measures designed to prevent, or reduce emissions to air, water and land from specific activities including energy industries.	Projects / infrastructure resulting from the Energy Policy must be screened to determine whether an Integrated Pollution Prevention & Control permit is required.
Legal Notice 161 of 2002 Waste Management (Waste Oils) Regulations, 2002	These regulations provide specific procedures and guidance for the disposal of waste oils.	These regulations should be considered where relevant during implementation of the Energy Policy
Legal Notice 211 of 2001 Combating of Air Pollution from Industrial Plants Regulations, 2001	These regulations require certain plants to operate with a license issued by the Competent Authority, namely the Malta Environment and Planning Authority. The Competent Authority only issues licences where it is satisfied that all appropriate preventive measures have been taken against air pollution insofar as this does not entail excessive costs and if it is assured that emission limit values will not be exceeded.	Power stations are included within the scope of these regulations and any developments that may result from the implementation of the Energy Policy should take into consideration compliance with these Regulations.
Legal Notice 237 of 2002 Crude Oil and Petroleum Products (Minimum Security Stocks and Crisis Management) Regulations, 2002	These regulations seek to maintain minimum security stocks of crude oil and petroleum products and to empower the Malta Resources Authority to manage such stocks.	The Energy Policy must remain mindful of these regulations.
Legal Notice 291 of 2002 National	These regulations discuss national emission ceilings for sulphur dioxide, oxides of nitrogen, volatile organic compounds, and ammonia.	The Energy Policy should be mindful of these



Plan, Programme, Legislation	Description	Implications for the Energy Policy
Emission Ceilings for Certain		regulations.
Atmospheric Pollutants Regulations,		
2002		
Legal Notice 329 of 2002 Limitations of	These regulations control emissions from combustion plants designed to produce energy with a thermal input of ≥ 50MW. This legislation	These Regulations must be considered in
Emissions of Certain Pollutants into the	aims to gradually reduce SO_2 and NO_x of existing plants on an annual basis and present emission limit values for SO_2 , NO_x and dust for new	relation to any proposals for the existing
Air from Large Combustion Plants	plants (i.e. all plants for which the operating licence was granted on or after 1 July 1987). For plant that does not comply, operational hours	and/or any new proposals for power plants.
Regulations, 2002	will be limited under these regulations.	
Legal Notice 37 of 2003 Control of	These regulations focus on the prevention of major accidents that involve dangerous substances, and the limitation of their consequences to	The Energy Policy, and any projects resulting
Major Accident Hazards Regulations,	reduce potential negative impacts on humans and the environment	from it must operate within these regulations.
2003		
Legal Notice 224 of 2001 Limit Values	These Regulations provide limit values for aerial emissions of nitrogen dioxide, sulphur dioxide, oxides of nitrogen, particulate matter and lead.	Projects arising from the implementation of
for Nitrogen Dioxide, Sulphur Dioxide		the Policy must consider these Regulations.
and Oxides of Nitrogen, Particulate		,
Matter and Lead in Ambient Air		
Regulations, 2001		
Legal Notice 216 of 2001 Ambient Air	The Malta Environment and Planning Authority is responsible for implementation of these regulations. Pollutants covered by these Regulations	The Energy Policy should be aware of these
Quality Assessment and Management	include sulphur dioxide, nitrogen oxides, benzene and carbon monoxide, polycyclic aromatic hydrocarbons (PAHs), cadmium, arsenic, PM10,	regulations and any measures developed as a
Regulations, 2001	PM2.5, lead, nickel and mercury.	result of their implementation.
Legal Notice 186 of 2004 Promotion of	These regulations promote the generation of electricity from renewable energy sources and set a target of 5% of electricity to be produced	The Energy Policy should aim to reach targets
Electricity Produced from Renewable	from renewable energy sources of gross national electricity consumption in 2010. Following a study commissioned by MRA ¹³ , this target was	set.
Energy Sources Regulations, 2004	revised and declared at 1.31% in 2005.	Sec.
Legal Notice 194 of 2004 Water Policy	These regulations provide for the long-term sustainable management of water resources on the basis of a high level of protection of the	The Energy Policy should aim to minimise
Framework Regulations, 2004	aquatic environment	potential impacts on the aquatic environment.
Trainework Regulations, 2004	aquatic environment	These will be assessed as part of the SEA.
Legal Notice 432 of 2004 Natural Gas	These regulations establish common rules for the internal market in natural gas.	Relevant aspects of the Energy Policy will
(Marketing) Regulations, 2004	These regulations establish common rules for the internal market in natural gas.	operate within the measures established
(Flai Retilig) Regulations, 2007		through these regulations.
Logal Niceira El Laf 2004 Flactwicky	The aim of the Electricity Directive (Directive 2003/54/EC), which these regulations transpose, is to liberalise the energy sector. Given the	The context of these regulations and the
Legal Notice 511 of 2004 Electricity Regulations, 2004	situation in Malta, Malta asked for and was granted a derogation of certain provisions under the Directive because it was deemed impractical	Directive's objectives will be relevant for
Regulations, 2004		
	to achieve the objective of a competitive market in electricity given the size and structure of the Maltese electricity market. The derogation	certain aspects of the Energy Policy.
	was granted for any requirements regarding transmission system operation, third party access, even to the distribution grid, and market	
	opening. This derogation will expire in case of substantial changes in the Maltese electricity sector. Such changes must be reported to the	
	Commission and include, for example, new generating licences, new entrants to the market, and new infrastructure as they may require a	
	review of the derogation. Malta is also obliged to submit a report to the Commission on a two-yearly basis regarding tarification, pricing	
	policy, and customer protection issues concerning the derogation.	
	The local regulations do, however, lay out the rules for the licensing of activities in the electricity sector and the management of the electricity	
	sector in Malta, access to the market, operation of the system and the regulation of electricity tariffs, with the aim of achieving a competitive,	
	secure and environmentally sustainable market in electricity. In addition, these regulations define measures for the safeguarding of electricity	
	supply.	
	In the context of the Directive, it is envisaged that the monopoly in electricity generation will not remain and the possibility of alternative	
	generating companies will be opened up.	
Legal Notice 140 of 2005 European	These regulations present a scheme for Malta for greenhouse gas emissions allowance training with the European Community in an effort to	The Energy Policy and projects arising from its
Community Greenhouse Gas Emissions	promote reductions of greenhouse gas emissions in a cost-effective and economically efficient manner.	implementation may need to operate in
Trading Scheme Regulations, 2005		accordance with these regulations where
		relevant.
Legal Notice 317 of 2006 Natural Gas	These regulations lay out rules relating to the safeguarding of an adequate level of security of gas supply in the natural gas sector.	The Energy Policy will operate within the
Supply (Safeguard of Security		requirements of these regulations.
Regulations), 2006		
Legal Notice 2 of 2007 Cogeneration	These regulations require the promotion of cogeneration based on a useful heat demand in the internal energy market.	These regulations could have an influence on
Regulations, 2007		the development of the Energy Policy.
Legal Notice 289 of 2008 Energy End-	These regulations aim to enhance the cost-effective improvement of energy end-use efficiency in Malta.	The Energy Policy includes measures aimed at

 $^{\rm 13}$ Mott Macdonald. 2005. Strategy for Renewable Electricity Exploitation in Malta.



Plan, Programme, Legislation	Description	Implications for the Energy Policy
Use Efficiency and Energy Services		realising the aims of these regulations.
Regulations, 2008		
Legal Notice 261 of 2008 Energy	These regulations seek to ensure increased energy efficiency of buildings.	The Energy Policy seeks to support improved
Performance of Buildings Regulations,		efficiency by electricity end-users.
2008		
Legal Notice 44 of 2008 Quality of Fuels	These regulations regulate the quality of fuels available in Malta.	The Energy Policy should be mindful of these
Regulations, 2008		regulations.
Legal Notice 126 of 2008 Prevention and	These regulations establish a framework of environmental liability based on the polluter-pays principle to prevent and remedy environmental	These regulations should be considered during
Remedying of Environmental Damage	damage.	implementation of any projects that may
Regulations, 2008		develop from the implementation of the
		Policy.



BASELINE DATA

- 26. A good understanding of the environment of the areas covered by the SEA is essential for the performance of a sound assessment. It is therefore necessary to establish the environmental baseline relevant to the plan or programme being proposed. This provides a snapshot of the existing state of the environment and a description of the likely future trends (based on past trends) without the programme being in place.
- 27. Schedule 3 of the SEA Regulations indicates that the scoping report may include baseline information, either already collected or still needed, with notes on sources and any problems encountered. This is essentially a broad-brush "State of the Environment" review of the Maltese Islands focusing on the main environmental issues. Existing environmental and sustainability data will be collected from a wide range of sources. **Table 2** summarises this broad-brush description. The list is not exhaustive, and may be modified in the Environmental Report. It will also depend on the availability of data.
- 28. The draft Sustainable Development Strategy 2006 2016 identifies Malta's environmental challenges; it arises from a systematic review of official reports including the State of the Environment Report (1998, 2002, and 2005) and Malta's National Report to the World Summit on Sustainable Development (2002), and an extensive consultation process. The following environmental challenges were identified:
 - Air quality
 - Climatic factors and climate change;
 - Energy-efficiency and renewable energy resources;
 - Biodiversity including the marine environment;
 - Freshwater;
 - Waste:
 - Land use;
 - Soils:
 - Landscape;
 - Cultural heritage;
 - Population and human health; and
 - Material assets.



- 29. The SEA baseline will focus on the parameters listed under Schedule I (f) of the SEA Regulations, 2005 -Information to be included in the Environmental Report
- 30. **Table 2** shows how the Environment Report will draw together the issues and baseline data. Sources of information included the statistics produced by the National Statistics Office, the State of the Environment Report, 2005 (and subsequent updates) and the documents prepared in connection with the Structure Plan Review process. As the Environmental Report is developed the baseline may be modified to reflect available and other relevant data.

Table 2: Environmental baseline

Issue	Relevant baseline data	Illustrative material
Air quality and climate change	GHG inventory Emissions to air of pollutants by relevant sectors	Graphs and figures.
Energy-efficiency and renewable energy resources	 Energy and fuel consumption by sector Energy from renewable resources 	Graphs and figures
Biodiversity / fauna and flora	 Areas designated and managed; Areas known to support priority Annex I habitats under the Habitats Directive 	Designated and managed areas
Water	Pollution of the marine environment from current activities Pollution of groundwater from current activities	Maps / graphs / tables
Soil	Contamination of soil	Graphs and figures
Landscape	Areas protected for landscape value	Landscape sensitivity areas and protective designations
Cultural heritage	Number of sites protected for cultural heritage	Maps
Population and human health	 Air quality in localities directly affected by the energy sector Environmental health data (where available) 	Graphs and tables Data
Material assets	 Energy infrastructure¹⁴ Waste infrastructure Transport modes 	Maps / figures

31. Quantitative data will be presented in the form of maps, tables, and figures, where possible. A brief description of the baseline and any trends will be given, where these are available. Where difficulties in obtaining data are encountered they will be described in the Environmental Report.

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¹⁴ This includes energy generation, distribution, and storage of fuel



EVALUATION OF THE CURRENT SITUATION IN THE ABSENCE OF THE ENERGY POLICY

- 32. The SEA Regulations require a description of the relevant aspects of the current state of the environment and the likely evolution thereof without the implementation of the policy document with a particular emphasis on the future developments arising from other relevant plans and programmes.
- 33. This analysis will focus on the main environmental issues that have been identified in **Table 2**. It will include a description of the past and current trends from data available from existing monitoring systems or through expert judgements (in cases where data are lacking). It will also outline the likely evolution of these trends, if the Energy Policy were not implemented.
- 34. The description of the likely future trends should the Energy Policy not be implemented is constrained by uncertainties, including availability of data on future economic development, technological progress, or advancements in regulatory frameworks that collectively influence future trends. The assessment will include a list of major uncertainties.

SEA OBJECTIVES

- 35. The SEA Directive does not specifically require the use of objectives or indicators in SEA, although they are a recognised way through which environmental effects can be described, analysed, and compared.
- 36. It is therefore preferable to use indicators to monitor the performance of the policy against the SEA objectives. The SEA objectives are meant to be separate from the policy objectives, and provide a way to assess the potential environmental performance of the policy objectives. Thus, the environmental objectives should influence the policy objectives, and the two may even overlap. To fulfil the requirements of the SEA Directive and the SEA Regulations, 2005, the SEA objectives must cover biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage, landscape, and interrelationships between them.
- 37. In developing appropriate objectives, the following documents have been consulted:
 - GRDP's Handbook on SEA for Cohesion Policy 2007- 2011;
 - The Commission's "Implementation of Directive 2001/42 on the Assessment of the Effects of Certain Plans and Programmes on the Environment";
 - A Practical Guide to the Implementation of the SEA Directive, ODPM
 - The SEA Directive 2001/42/EC; and
 - SEA Regulations, 2005.
- 38. In developing appropriate indicators the following documents have been consulted:



- The Draft Sustainable Development Strategy for the Maltese Islands, 2006-2013;
 and
- Malta's State of the Environment Report, 2005.
- 39. **Table 3** defines the set of objectives relating to the environmental issues identified in **Table 2.** Alongside these, relevant criteria for assessment and possible data sources have been identified.
- 40. The SEA objectives listed in **Table 3** are not relevant to all the measures described in the Energy Policy. The Environmental Report will note which objectives are not relevant and explain why this may be the case.
- 41. The SEA indicators are measurements of trends over time. They will be used as a means of ascertaining the success of implementation of the Energy Policy against the various SEA Objectives. Where possible the SEA process endeavours to identify how the Energy Policy would affect these indicators (i.e. the trends); such a process is constrained by the fact that the SEA indicators themselves depend on other factors outside the control of the Energy Policy.



Table 3: SEA Environmental Objectives & Indicators for Assessing Impacts

Issue	SEA Objective	Criteria Will this measure	SEA Indicator	Data source
Biodiversity, Flora & Fauna	Maintain biodiversity (including terrestrial and marine)	 Help to maintain or enhance the conservation of designated areas (under both the Development Planning Act, and the Environment Protection Act)? Negatively affect protected species and habitats? 	 Number, % cover, and area of protected areas Designated areas that are subject to formal management arrangements On-the-ground results of site management 	Environmental monitoring through Environmental Impact Assessment (EIA), Appropriate Assessment (AA), or other regulatory requirements as relevant.
Population & Human health	 Help to reduce potential negative health impacts arising from air pollution Increase well-being of the population 	 Help reduce emissions to air? Help reduce traffic? Affect sites designated for recreation? Affect (directly or indirectly) the well-being of the community? 	 Emission values for those parameters which the energy sector (including transport) contributes to; Number of vehicles per capita; Public transport usage; Level of well-being (identified through National Health Interview Surveys) 	Enemalta, MEPA, Transport Malta, Ministry for Health, the Elderly and Community Care
Water	 Minimise pollution on the marine environment from activities directly arising from the energy sector; Minimise pollution on groundwater from activities directly arising from the energy sector 	 Help to minimise discharges to water? Help to maintain and enhance Malta's groundwater, inland surface waters and coastal waters? Increase water efficiency? Affect marine processes? 	 Quality of the marine environment in the vicinity of energy operations; Quality of groundwater in the vicinity of energy operations; Number of water pollution accidents; Compliance with the Water Framework Directive (WFD). 	MEPA, potential permit requirements (i.e. applicant)
Air	Ensure emission limits are not exceeded	Help to reduce emissions of atmospheric pollutants from the energy sector?	Emission values for those parameters which the energy sector directly contributes to	Enemalta, MEPA



Issue	SEA Objective	Criteria Will this measure	SEA Indicator	Data source
Climatic factors and climate change	Reduce production of greenhouse gas emissions in line with national targets	 Contribute to the reduction of GHGs? Help to increase use of renewable energy? 	 Emissions in greenhouse gas emissions from energy infrastructure % use of renewable energy resources 	Enemalta, MEPA
Soil	Avoid land contamination	Help to prevent land contamination?	 Land contamination at specific sites at project level; Number of spill incidents. 	Environmental monitoring through EIA or other regulatory requirements as relevant.
Material assets	 Promote generation of energy from waste Minimise production of hazardous waste Promote sustainable transport options 	 Promote generation of energy from waste? Help to minimise waste generation, including hazardous waste generation? Promote sustainable transport options? 	 Number of projects and/or initiatives implemented that support sustainable waste management Hazardous waste produced by energy infrastructure Public transport use (increase) Biofuel consumption (increase) 	MRA
Cultural heritage	Maintain the conservation status of cultural heritage sites / areas with known cultural / archaeological remains	 Help to preserve, enhance and promote cultural heritage including archaeological heritage? Reduce negative impacts on cultural heritage features and sites? 	Number of operations located away from cultural heritage sites / areas or areas with known cultural / archaeological remains as a percentage of the total number of operations following a site selection exercise	MEPA, Resources Management Unit Heritage Malta Superintendent of Cultural heritage
Landscape	Maintain landscape quality distinctiveness	Help to maintain landscape quality distinctiveness?	Environmental Impact Assessment results on landscape assessment	MEPA



TESTING COMPATIBILITY OF THE ENERGY POLICY OBJECTIVES AND THE SEA ENVIRONMENTAL OBJECTIVES

42. The aim of testing the Energy Policy objectives against the SEA objectives is to identify both potential synergies and inconsistencies between what the Policy is trying to achieve and the aspirations for the environment. This information can help refine the implementation of measures and recommend mitigation measures to ensure that the Programme meets the environmental objectives.

LIKELY SIGNIFICANT EFFECTS AND CONSTRAINTS

- 43. Significance will also be assessed in accordance with the criteria listed in Schedule 4 of the SEA Regulations, 2005. Consultation will ensure that all factors are considered. Reference documents will include the draft Sustainable Development Strategy and the State of the Environment Report, 2005 (and subsequent updates). Subsequent sections further describe how impacts will be assessed.
- 44. The assessment of significance is already well established in Environmental Impact Assessment (EIA) literature. Significance is a function of impact magnitude and the sensitivity of receptors. Various methods can be used to determine significance including expert judgements, the use of thresholds, reference to legislation, and consultation with stakeholders. It is expected that, in the course of the SEA process, all these techniques will be used.
- 45. The assessment of significance is based on the probability of the impact occurring, on the scale of the impact, its duration, reversibility, whether it has transboundary impacts, and whether the impact is uncertain. **Table 4** describes the assessment framework and the symbols used to denote the various types of impact.
- 46. The relevant SEA objectives identified in **Table 3** will then be used to assess the 5 Priority Axes in accordance with the significance criteria described in **Table 4**. It is proposed to present the results of the assessment in the format indicated in **Table 5**.

Table 4: Assessment legend

Impact character	Symbol	Description of Impact
Probability	VP	Impact very likely to occur
	Р	Impact likely to occur
Scale	++	Large positive impact
	+	Positive impact
	0	No impact
	-	Negative impact
		Large negative impact
Direct / Indirect	I	Indirect impact
	D	Direct impact
Frequency / duration	LT	Long term
	ST	Short term
Transboundary dimension	TR	Possible transboundary effect



Impact character	Symbol	Description of Impact
Uncertainty	?	Impact uncertain



Table 5: Example Policy Assessment framework and format for environmental report

Relevant		Significance		e	
SEA	Indicator	Comment	Symbols	Summary description	Mitigation
Objective				, .	
POLICY A	REAI: Energy Efficiency				
Policy Are	a IA: Efficiency in Electricity Ge	neration and Di	stribution		
Measure: E	nsure that electricity producers	seek ways to in	crease the effi	ciency of the electrical power generation	plants, by improving the
	existing plant and investing in ne			, , ,	,
Protect and enhance protected areas.	Biodiversity at specific sites at project level	What is the potential impact?	Impact assessment in accordance with the criteria listed in Table 4	Justification of the impact assessment	Description of mitigation measures, if these are necessary
POLICY A	REA 2: Reducing reliance on im	ported fuels			



Cumulative & Synergistic Impacts

- 47. This stage of the process involves an assessment of the cumulative and synergistic effects of all proposed priorities in the Energy Policy on the relevant environmental issues, objectives, and indicators. Cumulative effects are effects that result from incremental changes caused by other past, present, or reasonably foreseeable actions together with the proposal. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time.
- 48. Synergistic effects interact to produce a total effect that is greater than the sum of the individual effects. Synergistic effects often happen as habitats or human communities begin to reach carrying capacity and/or non renewable resources are depleted unsustainably.
- 49. The cumulative and synergistic impact assessment will be based on the information generated by the preceding assessments (described above) of the individual priorities. Any identified cumulative and synergistic effects will be summarised and used as recommendations for final adjustments to the programming document.

ALTERNATIVES

- 50. The SEA Directive requires that an assessment must identify the likely significant effects on the environment of implementing the plan or programme, and reasonable alternatives taking into account the objectives and the geographical scope of the plan or programme.
- 51. The Environmental Report will include an assessment of feasible alternatives (where relevant) that are under consideration during Policy development.

MONITORING

- 52. The Environmental Report will include a section that describes how the success of the Energy Policy's implementation will be measured with respect to the SEA objectives, by measuring (monitoring) the significant effects of the Energy Policy on the environment.
- 53. The SEA will assess the monitoring arrangements proposed for the Energy Policy and may recommend incorporation of new indicators based on the relevant environmental issues, objectives, and indicators for the programming document.
- 54. Again, it is noted that the correlation between indicators for monitoring and the Energy Policy objectives may be constrained because indicators may be affected by other initiatives, including private sector initiatives, other plans and programmes, and legislative measures that are outside the scope of the Energy Policy.

ASSESSMENT METHODOLOGY

55. The SEA on the Energy Policy for Malta started in November 2009, after Adi Associates Environmental Consultants Ltd were awarded the tender to carry out this



SEA through a competitive tender procedure administered by the Malta Resources Authority on behalf of the Government of Malta.

- 56. The SEA involves several key stages:
 - The scoping stage aimed to agree the "scope and level of detail of information which must be included in the environmental report" (SEA Directive, Art. 5.4). A meeting was held with the programme managers on 9th December 2009.
 - The collection of baseline data and analysis of relevant plans, programmes, and environmental objectives has already commenced. The Consultants are collecting baseline data from a wide range of sources, including studies of the key growth areas, and analysing a wide range of plans/programmes/objectives using matrices to structure the data collection. Maps of key environmental issues are being prepared.
 - Preparation of the *Environmental Report* this commences once all relevant information is collected and following consultation with the stakeholders, MEPA, and the Programme Manager.

THE ENVIRONMENTAL REPORT

57. The proposed structure of the Environmental Report is as set out below. It is noted that as the Report develops the structure may change slightly; however, the following table gives the general framework. It is in accordance with the provisions of Schedule I of the SEA Regulations, 2005.

Table 6: Structure of the Environment Report

Section	Content
Summary and outcomes	Non-technical summary
	Statement on the difference the process has made
	Directions on how to comment on the assessment
Introduction	Strategic environmental assessment (compliance with the SEA
	Regulations, 2005)
	Aim and structure of the report
	OP background
Methodology	Approach adopted
	Stages of SEA process (timings and responsibilities)
	Limitations
	Consultation
Baseline	The environmental baseline
	Summary of environmental issues
	Links to other relevant policies, plans, programmes
SEA framework	Objectives and indicators
	Assessment of significance
Assessment of alternatives	Alternatives considered
	Comparison of alternatives
	Consideration of environmental issues in development of alternatives
	Preferred alternative (including reasons for rejection of others)
Detailed Assessment of the Energy	Assessment of each priority axis
Policy	Recommendations



Section	Content	
	Recommended changes to the Energy Policy	
	Proposed mitigation	
	Uncertainties and risks	
Monitoring proposals	A description of the monitoring requirements	
Appendices	As necessary	