INTRODUCTION

Article 4 of Directive 2009/28/EC requires each Member State to adopt a national renewable energy action plan. These national renewable energy action plans shall set out the national targets of Member States for the share of energy from renewable sources consumed in transport, electricity and heating and cooling in 2020, taking into account the effects of the other policy measures relating to energy efficiency on final consumption of energy and adequate measures to be taken to achieve those national overall targets.

The Ministry of Commerce, Industry and Tourism in cooperation with all competent bodies such as the Ministries of Agriculture, Natural Resources and the Environment, Interior, Finance, Communications and Works, the Planning Bureau, the Cyprus Energy Regulatory Authority, the Electricity Authority of Cyprus and the Transmission System Operator, considered various scenarios regarding development plans for projects implementing renewable energy sources technologies in the sectors of electricity, heating/cooling and transport and selected the best scenario for Cyprus. The selection was based on the following criteria:

- Ø The obligation of the Republic of Cyprus to achieve the targets set by Directive 2009/28/•C for both the share of energy from renewable sources in the final consumption of energy and the rate of renewable sources consumed in transport,
- Ø the domestic renewable energy potential per technology,
- Ø the cost, maturity, efficiency, potential, development and social acceptance of each technology,
- Ø the cost and most efficient utilisation of the Special Renewable Energy Sources and Energy Conservation Fund revenue,
- Ø safe network operation and the potential of each technology with respect to stocks.

The Ministry of Commerce, Industry and Tourism shall also prepare and submit the Strategic Environmental Impact Assessment for the National Action Plan.

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1. SUMMARY OF THE NATIONAL POLICY ON RENEWABLE ENERGY

Please give a short overview of the national renewable energy policy describing the objectives of the policy (such as security of supply, environmental, economic and social benefits) and the main strategic lines of action.

The energy policy of Cyprus is formulated by the Ministry of Commerce, Industry and Tourism in cooperation with all bodies involved and is approved by the Council of Ministers. The Ministry of Commerce, Industry and Tourism examines the country's energy requirements, takes into account the obligations arising from international treaties and agreements and defines the main axes which in turn determine the targets to be implemented. At the same time, the energy model applied in Cyprus focuses also on the social dimension of energy saving. The energy policy is based on the following main pillars:

- Security of energy supply
- Competitiveness
- Protection of the environment

Certain of the above national energy policy goals have been translated already into specific quantitative, binding targets for the country for the 2020 milestone:

- 13% contribution from renewable energy sources in the final use of energy;
- 10% contribution from renewable energy sources in the road transport consumption;
- 5% reduction of greenhouse gas emissions from 2005, for categories outside the scope of the Greenhouse Gas Emission Allowance Trading Scheme.

<u>Security of Energy Supply</u>

Actions aiming to achieving this target are:

- Diversification of energy sources through implementation of the strategic goal for introduction of natural gas into the country's energy mix.
- Increasing the country's energy self-sufficiency and strengthening of its geostrategic role in the greater area through the development of research actions related to the island's fossil fuel energy potential.
- Maximization of efficient utilisation of renewable energy sources aiming to replace energy from imported sources.
- Energy saving both in the primary form and its final use.
- Ensuring sufficient electric power supply potential.
- Development of the country's self sufficiency in relation to the import of primary fuels by maintaining sufficient security stocks.

Competitiveness

Measures contributing to the creation of a healthy competitive energy market include:

- Liberalisation of electricity market aiming to increase the productivity and competitiveness of the domestic economy and to improve the services provided to consumers.
- Development of energy infrastructures and improvement of electric power transmission infrastructures.
- Effective development of RES plants, based on spatial planning.
- Adoption of investments in the energy sector based on the maximum resource utilization criterion and overall benefit.
- Simplification of all licensing procedures.

Protection of the Environment – Sustainable Development

Protection of the environment and sustainable development are ensured through:

- Promotion of renewable energy sources for the generation of electricity and heat contributing to a significant reduction of pollutant and greenhouse gas emissions.
- Efficient and rational use of energy.
- Substitution of petrol with biofuels in the transport sector as much as possible.
- Promotion of high efficiency electricity and heat cogeneration in industries and large commercial plants.
- Application of stricter specifications on transport fuels and the type of fuel in the electricity generation sector.
- Promotion of the use of natural gas (when this becomes available in the domestic market) for public transport.
- Preparation of a study on the environmental impact assessment strategy through implementation of this Scheme.

2. EXPECTED FINAL ENERGY CONSUMPTION, 2010-2020

Table 1: Expected gross final energy consumption of Cyprus in heating and cooling, electricity and transport up to 2020, taking into account the effect of energy efficiency and energy conservation measures during 2010-2020 (ktoe)

	2005	2010		2011		2012		2013		2014	
	Base year	*Reference scenario*	*Additional energy efficiency*	*Reference scenario*	*Additional energy efficiency*	*Reference scenario*	*Additional energy efficiency*	*Reference scenario*	*Additional energy efficiency*	*Reference scenario*	*Additional energy efficiency*
(1) heating and cooling	530	480	480	483	480	489	484	499	492	508	499
(2) electricity	374	464	463*	486	480*	508	497*	530	514*	551	531*
(3) transport according to Article 3(4)(a)	682	721	720	722	716	731	720	744	727	757	736
(4) Gross final energy consumption	1884	1921	1919	1949	1934	1991	1963	2043	2002	2096	2041
The following calculations are required because the final energy consumption in aviation in Cyprus exceeds 6.18% (4.12% for Malta and Cyprus):											
Final consumption in aviation	301	257	256	258	257	263	261	271	268	279	275
Reduction for aviation limit according to Article 5(6)	78	79	79	80	80	82	81	84	82	86	84
TOTAL Consumption after reduction for aviation limit	1661	1744	1742	1771	1757	1810	1782	1857	1816	1904	1850

Official forecast of the Transmission System Operator for 2010-2019 (http://www.dsm.org.cy/nqcontent.cfm?a_id=2990&tt=graphic&lang=l1)

	2015		2016		2017		2018		2019		2020	
	Reference scenario	***Additional energy efficiency***	***Reference scenario***	***Additional energy efficiency***	***Reference scenario***	***Additional energy efficiency***	***Reference scenario***	***Additional energy efficiency***	***Reference scenario***	***Additional energy efficiency***	***Reference scenario***	***Additional energy efficiency***
(1) heating and cooling	517	506	525	512	533	517	540	521	546	525	551	527
(2) electricity	573	548*	595	564*	617	581*	639	598*	661	615*	683**	633*
(3) transport according to Article 3(4)(a)	771	744	783	750	795	756	806	761	816	765	825	768
(4) Gross final energy consumption	2150	2080	2199	2116	2247	2149	2293	2180	2338	2210	2380	2240
The following calculations are required because the final energy consumption in aviation in Cyprus is expected to exceed 6.18% (4.12% for Malta and Cyprus):												
Final consumption in aviation	287	282	294	288	301	294	307	300	313	305	319	310
Reduction for aviation limit according to Article 5(6)	89	86	91	87	93	89	94	90	96	91	98	92
TOTAL Consumption after reduction for aviation limit	1952	1884	1996	1915	2039	1943	2081	1971	2121	1997	2159	**2023**

Official forecast of the Transmission System Operator for 2010-2019 (http://www.dsm.org.cy/nqcontent.cfm?a_id=2990&tt=graphic&lang=l1)

***Assumption: 50 ktoe more electricity for 2020 from the additional energy efficiency scenario.*

3. RENEWABLE ENERGY TARGETS AND TRAJECTORIES

3.1. National overall target

Table 2: National overall target for the share of energy from renewable energy sources in gross final consumption of energy in 2005 and 2020 (figures to be transcribed from Annex I, part A to Directive 2009/28/• C):

(A) Share of energy from renewable sources in gross final consumption of energy in 2005 (S2005) (%)	2.9%
(A) Target of energy from renewable sources in gross final consumption of energy in 2020 (S2005) (%)	13%
(C) Expected total adjusted energy consumption for 2020 (from table 1, last cell) (ktoe)	2023
(D) Expected amount of energy from renewable sources corresponding to the 2020 target (calculated as B x C) (ktoe)	263

3.2. Sectoral targets and trajectories

Table 3: National 2020 target and estimated trajectory of energy from renewable sources in heating and cooling, electricity and transport

	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
RES – H&C (%)	9.1	16.2	16.9	17.8	18.5	19.2	20.0	20.7	21.3	22.1	22.7	23.5
RES – E (%)	0	4.3	4.4	4.4	6.0	7.3	8.4	9.4	10.8	12.4	14.1	16.0
RES – T(%)	0	2.2	2.4	2.5	2.8	2.9	3.1	3.5	3.8	4.2	4.6	4.9
Overall RES share (%)	**2.9**	**6.5**	**6.8**	**7.1**	**7.8**	**8.4**	**9.0**	**9.7**	**10.4**	**11.2**	**12.1**	**13.0**
Of which from cooperation mechanism (%)	0	0	0	0	0	0	0	0	0	0	0	0
Surplus for cooperation mechanism (%)	0	0	0	0	0	0	0	0	0	0	0	0
As part B of Annex I of the Directive			2011-2012		2013-2014		2015-2016		2017-2018			2020
(S=share)			S_{2005}+**20%** (S_{2020}-S_{2005})		S2005 +**30%** (S_{2020}-S_{2005})		S2005 + **45%** (S_{2020}-S_{2005})		S2005 +**65%** (S_{2020}-S_{2005})			S_{2020}
RES minimum trajectory (%)			4.92		5.93		7.45		9.47			13.0
RES minimum trajectory (%)			122,5		149		177,5		211,5			263

Table 4a: Calculation table for the renewable energy contribution of each sector to final energy consumption (ktoe)

	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
(A) Expected gross final consumption of RES for Heating and Cooling	48	78	81	86	91	96	101	106	110	115	119	124
(B) Expected gross final consumption of electricity from RES	0	20	21	22	31	39	46	53	63	74	87	101
(C) Expected final consumption of energy from RES in Transport	0	16	17	18	20	21	23	26	29	32	35	38
(D) Expected total RES consumption	48	114	119	126	142	156	170	185	202	221	241	263
(E) Expected transfer of RES to other Member States	0	0	0	0	0	0	0	0	0	0	0	0
(F) Expected transfer of RES from other Member States and third countries	0	0	0	0	0	0	0	0	0	0	0	0
(G) Expected RES consumption adjusted to target (D)-(E)+(F)	48	114	119	126	142	156	170	185	202	221	241	263

Table 4b: Calculation table for the renewable energy in transport share (ktoe)

	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
(C) Expected RES consumption in transport	0.00	15.68	16.84	18.17	19.62	21.12	22.65	25.78	28.93	32.09	35.26	38.42
(•) Expected RES electricity in road transport	0.00	0.00	0.05	0.10	0.16	0.21	0.27	0.33	0.38	0.44	0.50	0.56
(I) Expected consumption of biofuels from waste, residues, non-food cellulosic and lingo-cellulosic material in transport	0.00	0.47	0.67	0.88	1.09	1.29	1.50	9.33	17.17	25.00	32.84	37.86
(J) Expected RES contribution to transport for the RES-T target: (C)+(2,5-1)x(H)+(2-1)x(I)	**0.00**	**2.2%**	**2.4%**	**2.6%**	**2.8%**	**3.1%**	**3.3%**	**4.7%**	**6.2%**	**7.6%**	**9%**	**10%**

4. MEASURES FOR ACHIEVING THE TARGETS

4.1. Overview of all policies and measures to promote the use of energy from renewable sources

Table 5: Overview of all policies and measures

Name & reference of the measure	Type of measure	Expected result	Targeted group and or activity	Existing or planned	Start and end dates of the measure
Establishment of the Cyprus Institute of Energy. The Institute was founded on 07.6.2000 by Decision of the Minister for Commerce, Industry and Tourism No 51.295, of 23.02.2000, in order to develop and promote the use of renewable energy sources in Cyprus. One of the main activities of the Institute is to participate in international programmes related to the promotion of RES, cooperation with similar institutes abroad, to carry on applied research and offer technical guidance and information related to the promotion of using new, more efficient energy technologies.	Regulatory	Promotion of renewable energy sources	All citizens of the Republic of Cyprus	Existing	The Institution operates since 23.02.2000

Establishment and operation of the Special Fund the revenue of which comes from a duty EUR 0.0022 per consumed kilowatt hour from all electricity consumer categories. The resources of the Fund are exclusively spent for the promotion of RES and conservation of energy.	Regulatory	Increase of generated electricity from RES	All citizens of the Republic of Cyprus	Existing	The Law and its provision where fully applied on August 2003
Establishment of the Cyprus Regulatory Authority (CERA) with the institution of Law 122(•)/2003 of 2003 on the Law Governing the Electricity Market. The Cyprus Energy Regulatory Authority is an independent authority of the Republic of Cyprus, and its main objective is to supervise the operation of the energy market in a liberalised environment free of monopolies.	Regulatory	Grants, monitors, enforces, revokes, modifies authorizations to generate electricity Regulates tariffs, changes and other terms and conditions applied by license holders for any services provided under the terms of their authorisations Protects the interests of consumers, protects the environment, ensures substantial competition and avoids undue discrimination. Ensures the safety, continuity, quality and reliability of electricity. Promotes the use of renewable energy sources. Encourages power generation from high efficiency cogeneration plants.	Investors and all consumers of electricity	Existing	The Law and its provision where fully applied on August 2003

Establishment of the Cyprus Transmission System Operator with the adoption of Law 122(•)/2003 of 2003 on the Regulation of the Electricity Market.	Regulatory	Objective administration of the electricity trade in a competitive environment, support and promotion of electricity generation from renewable energy sources.	Investors	Existing	The Law and its provision entered into full force on August 2003
Support Scheme Plans	Financial	Increase of RES potential	Industries, Investors, Final Consumers	Existing	a) 2004-2008 b) 2009-2013
Adoption of Law on the Promotion of Combined Heat and Power • 174(•)/2006, No 4105; date published in the Cyprus Government Gazette 29.12.2006 The Law provides to the Republic of Cyprus the legal framework to prepare and implement programmes that encourage power generation through combined generation from renewable energy sources.	Regulatory	Encourages power generation through combined generation from renewable energy sources	Industry, investors	Existing	The Law entered into force on 29.12.2006
The Transmission System Operator is required during allocation of load to give priority to energy produced with combined RES power generation in power plants up to 7MWe. This entitlement also applies to private electricity producer surplus where power is produced with RES combined generation. In the event of a private electricity producer surplus, where power is produced through high efficiency combined generation, the priority entitlement applies to facilities up to 11MWe.	Regulatory	Increase electricity produced through combined RES generation	Investors (electricity producers using RES combined generation)	Existing	This provision entered into force on 29.12.2006

Obligation of the Electricity Authority of Cyprus to purchase electricity using RES as a priority under the condition that the technical specifications specified for each case are met	Regulatory	Increase electricity generated from RES	Investors (electricity producers using RES power generation)	Existing	In force since 2002
Establishment of special charges for electricity generated from RES or co-generated from RES, with special incentives for each technology.	Financial	Increase of generated electricity from RES	Investors (electricity producers using RES power generation)	Existing	In force since 2002
Determination of clear terms for connection of photovoltaic systems, electricity generation systems using biomass and other RES systems with the grid.	Regulatory	Increase of generated electricity from RES	Investors, Industry	Existing	In force since 2002
Preparation of the 'legal framework for determination of an integrated spatial planning policy for installation of wind turbines, wind farms, photovoltaic systems and other plants using RES". The framework is published as Mandate 2 of 2006 based on the Law on City Planning and Spatial Planning Furthermore, the Department of Town Planning and Housing prepared a map showing the areas where installation of wind turbines in not allowed, to facilitate interested investors.	Regulatory	Determination of areas where RES development is allowed – Protection of environmentally sensitive areas	All citizens of the Republic of Cyprus	Existing	In force since 2006

Issuance of Circular 3 of 2008 by the Minister for the Interior which specified the evaluation criteria for applications to determine the cases where the Town Planning license will be considered granted.	Regulatory	Significant reduction of the examination and approval time for grants involving small-scale photovoltaic systems	Investors	Existing	In force since 2008
Adoption of the “One Stop Shop” principle	Regulatory	Coordination of technical services to accelerate the procedures and facilitate investors	Investors	Existing	In force since 2002
Exemption of wind farm power stations up to 30kW and photovoltaic and biomass systems up to 20 kW from the obligation to ensure a construction and operation license from the Cyprus Regulatory Authority	Regulatory	Accelerated licensing procedures	Investors	Existing	
Application charges for very small-scale Photovoltaic, Wind Farm and Biomass power generation plants	Financial	Reduced investment cost and faster, non-dissuasive procedures for very small-scale RES plants Promotion of interspersed, very small-scale RES plants	Investors	Existing	
Type of application to ensure license from the Cyprus Regulatory Authority for RES plants up to 5MW	Regulatory	Reduced investment cost and faster, non-dissuasive procedures for small-scale RES plants up to 5MW Promotion of available, small-scale RES technologies	Investors	Existing	

Dues for connection of RES plants with the Grid	Financial	Reduced RES investment cost – Promotion of power generation using RES	Investors	Existing	
Establishment of the Cyprus Energy Agency which is co-financed by the European Commission by 75% through the programme Intelligent Energy – Europe and the Union of Cyprus Communities.	Soft Type	Promotion of renewable energy sources	All citizens of the Republic of Cyprus	Existing	The Cyprus Energy Agency operates since 09.02.2009
Information campaigns, day events, seminars on RES, organization of expositions on the developments in RES technologies The measures related to public information on RES are described in detailed under the response to question 4.2.4.(g)	Soft Type	Promotion of renewable energy sources	All citizens of the Republic of Cyprus	Existing	

4.2. Specific measures to fulfil the requirements of Articles 13, 14, 16 and Articles 17 to 21 of Directive 2009/28/• C

4.2.1. Administrative procedures and spatial planning (Article 13(1) of Directive 2009/28/• C)

(a) List of existing national and, if applicable, regional legislation concerning authorisation, certification, licensing procedures and spatial planning applied to plants and associated transmission and distribution network infrastructure:

List of existing National Legislation:

•. License or exemption from obligation to acquire a license to construct and operate a power generation station

- The Laws on the Regulation of the Electricity Market of 2003 to 2008, (Law 122(•)/2003 & Law 239(•)/2004 & N.143(I)/2005 & Law 173(•)/2006 & Law92(•)/2008);
- The Regulations on the Regulation of the Electricity Market of 2004;
    - Issuance of Licenses Regulatory Administrative Act No 538/2004;
    - License Fees, Regulatory Administrative Act No 467/2004;
    - Licenses Registry, Regulatory Administrative Act No 466/2004;
    - Electricity Tariffs Procedures Regulations, Regulatory Administrative Act No 472/2004;
    - Investigation Procedures Regulations, Regulatory Administrative Act No 465/2004;
    - Administrative Penalties, Regulatory Administrative Act No 468/2004;
    - Complaints Submittal Procedure, Regulatory Administrative Act No 570/2005;
    - Performance Indicators, Regulatory Administrative Act No 571/2005.

•. Town Planning Permit – Spatial Planning

The Law on Town Planning and Spatial Planning passed in 1972 and entered into full force in December 1990. The Law provides a specific hierarchy for Development Plans (Plan for the Island, Local Plans and Area Schemes), aiming to adopt town planning and spatial planning policies to support the natural development of Cyprus. Based on the Legislation, the Minister for the Interior is appointed as the Town Planning Authority, who conveyed the power to draft/amend the Local Plans to the

Town Planning Council. The Law of 1982 was amended with the adoption of the Statement of Policy, as a general town and spatial planning policy for the countryside.

The Statement of Policy currently consists of a written text, with attached explanatory maps and diagrams, which includes general and specific policies per thematic unit and type of development. Additionally, the detailed Town Planning Zone plans and other special documents published in administrative regions are also an integral part of the Statement of Policy. In certain administrative regions only the Development Limit is specified and not the Planning Zones while in other regions the Development Limit arises through interpretation of the provisions of the written text of the Statement of Policy.

Legislation

- The Laws on Town and Spatial Planning regarding the town and spatial plan and issuance of permits

- Mandate 2 of 2006 (regarding the placement of Power Generation Stations using RES), according to Article 6 of the Law on Town and Spatial Planning issued by the Minister for the Interior.

- Amended text of the policy statement (Development Plan that amends the above mandate), published on 8/5/2009.

- Circular by the Minister for the Interior No 3/2008 of 13 May 2008 regarding the photovoltaic system facilities for which an application to acquire a spatial planning license is not required.

- Circular issued by the Minister for the Interior No 3 of 14 December 2009 also regarding the photovoltaic system facilities for which an application to acquire a spatial planning license is not required.

- "The General Development Decree" issued by the Minister for the Interior according to Article 22 of the Law on Town and Spatial Planning (Regulatory Administrative Act No 859/2003).

C. Building permit

- The Law on the Regulation of Streets and Buildings and related Regulations and Decrees

D. Air Emission Permits for power generation using biomass

- The Air Pollution Control Law No 187(•)/2002

- The Comprehensive Pollution Prevention and Control Laws; Law 56(•)/2003, Law 15(•)/2006 and Law 12(•)/2008

•. Permit to discard and or manage waste for Power Generation Plants using waste

- The Comprehensive Pollution Prevention and Control Laws; Law 56(•)/2003, Law 15(•)/2006 and Law 12(•)/2008
- The Laws on the Pollution of Waters of 2002 to 2006; Law 106(•)/2002, Law 160(•)/2005 and Law 76(•)/2006 Law 22(•)/2007, Law 11(•)/2008, Law 68(•)/2009, Law 78(•)/2009
- The Law on Solid and Hazardous Waste of 2002, No 215(•)/2002

F. Guarantees of Origin

- Law 162(•)/2006 on the Promotion of the Use of Renewable Energy Sources and Energy Conservation (amending) of 2006.

G. Environmental Impact Assessment for projects using renewable energy sources

Law 140(•)/2005 on the Environmental Impact Assessment for Certain Projects has been in force since 2 December 2005. This Law replaced Law No 57(•)/2001, which was in force since 2001. The Law harmonises the legislation of the Republic of Cyprus with European Directives 85/337/•EC, 97/11/•C and 2003/35/EC on this issue.

The Law pertains to licensing of projects included in the lists in Annexes I and II. The Law provides specific procedures for the impact assessment that these projects may have on the environment before the required licenses are issued.

Provisions and application of the Law

Annex I of the Law, lists inter alia, the RES projects that may have significant environmental impact and for which the preparation of an Environmental Impact Assessment is required.

Annex II of the Law includes inter alia, the list of RES projects for which a Preliminary Environmental Assessment Report is required. The Preliminary Impact Assessment form which must be completed by the applicant is prepared by the Environmental Department and is available to all interested parties.

Depending on the case, the Environmental Impact Assessment or Report is submitted to the Environmental Department through the Town Planning Authority and the issue is discussed in a meeting of the Environmental Impact Assessment Committee, established according to the Law.

The Committee is composed of 9 Sections / Agencies. Specifically, the Environmental Department chairs the Committee while the permanent members are the Department of Town Planning and Housing, the Ministry of Communications and Works, the Ministry of Commerce, Industry and Tourism, the Labour Inspection Department, the Cyprus Federation of Environmental and Ecological Organisations, the Cyprus Scientific and Technical Chamber and two members with special expertise appointed by the Minister.

The Committee convenes regularly and according to the issue representatives of other specialised Departments or agencies are invited to participate in addition to the aforementioned permanent members. The representative of the local administration of the area where the project is scheduled to be implemented or to operate is always invited in the meetings.

The role of the Committee is advisory to the Environmental Agency, which hold the final responsibility for drafting its opinion, by which the Environmental Agency may recommend:

a) If the project falls under Annex •:

i) that the project is not implemented;

ii) that specific terms are included in the Town Planning Permit which may be issued;
iii) where a public project is involved, the state agency to carry out the project shall implement specific measures to minimize the impact on the environment.

b) If the project falls under Annex ••:

i) to draft an Environmental Impact Assessment;
ii) that specific terms are included in the Town Planning Permit which may be issued;
iii) where a public project is involved, the state agency to carry out the project shall implement specific measures to minimize the impact on the environment.

Where the Town Planning Authority or state service responsible for the project object with the application of any of the substantial recommendations made by the Environmental Authority, the issue shall be referred to a Ministerial Committee which shall decide accordingly.
If the members of the Ministerial Committee cannot reach a common decision, the issue shall be referred to the Council of Ministers for a final decision.

(b) Responsible Ministry(/ies)/authority(/ies) and their competences in the field:

- Licensing for the construction and operation of power generation plants is the responsibility of the Cyprus Energy Regulatory Authority.

- Final approval of the spatial plan and issuance of the town planning license for power plants using RES is the responsibility of the Minister for the Interior (for the Statement of Policy) and the Town Planning and Housing Department (to issue the license).

- Depending on the area, the building permit is the responsibility of District Administrations or Municipalities.

- The Environmental approval and the licenses to discard and manage waste is the responsibility of the Department of Environment of the Ministry of Agriculture, Natural Resources and Environment.

- The pollution emissions permit is the responsibility of the Labour Inspection Department of the Ministry of Labour and Social Insurance.

(c) Revision foreseen with the view to take appropriate steps as described by Article 13(1) of Directive 2009/28/EC by:

The additional measures described in Article 13(1) are already transferred in the provisions of national legislation.

Those remaining are expected to be integrated and enter into force when the House of Representatives passes the new legislation.

(d) Summary of the existing and planned measures at regional/local levels (where relevant):

The main existing measures for simplification of licensing procedures such as determination of clear terms of connection for photovoltaic and other RES systems with the grid, issuance of Circular 3 of 2008 by the Minister for the Interior which specifies the criteria for implementation of small-scale photovoltaic systems on new or existing buildings so that the town planning license is considered granted and adoption of the “One Stop Shop” principle, have been extensively described under the response to question 4.1.

Furthermore, according to the Law of 2003 to 2008 on the Regulation of the Electricity Market, the Regulations of 2004 on the issuance of licenses and the relevant decisions of the Cyprus Energy Regulatory Authority, wind farms up to 30kW and photovoltaic systems and biomass systems up to 20 kW are exempt from the obligation to ensure a license from the Cyprus Energy Regulatory Authority.

At the same time, the licensing procedure for power generation plants using RES, with a capacity of up to 5MW requires exemption from acquiring a license, which is a simple form requiring minimal information.

With respect to the environmental impact assessment, it is not required in the following circumstances:

- Ø Wind turbines with a capacity of up to 30KW (a preliminary environmental impact assessment is required for wind turbines with a capacity above 31KW);
- Ø Photovoltaic facilities with a capacity of up to 100KW;
- Ø Power generation plants using biomass, with a capacity of up to 20KW;
- Ø Power generation plants using wave energy, and

All of the above measures have significantly simplified the licensing procedure.

(e) Are there unnecessary obstacles or non-proportionate requirements detected related to authorisation, certification and licensing procedures applied to plants and associated transmission and distribution network infrastructure for the production of electricity, heating or cooling from renewable sources, and to the process of transformation of biomass into biofuels or other energy products? If so, what are they?

There are no unnecessary obstacles or non-proportionate requirements detected up to present regarding the authorisation and licensing procedures.

(f) What level of administration (local, regional and national) is responsible for authorising, certifying and licensing renewable energy installations and for spatial planning? (If it depends on the type of installation, please specify.) If more than one level is involved, how is coordination between the different levels managed? How will coordination between different responsible authorities be improved in the future?

As stated under the response to question 4.2.1.(b), the Cyprus Energy Regulatory Authority (CERA) is responsible for issuance of construction and operation licenses. The Cyprus Energy Regulatory Authority issues licenses on a national level. The spatial planning for facilities using renewable energy sources for the generation of electricity is the responsibility of the Town Planning and Housing Department of the Ministry of the Interior and is carried out on a national level. Town planning licenses are issued on a regional level by each Town Planning Authority. Building permits are the responsibility of District Administrations of Municipalities, according to each case and are therefore issued on a district or local level.

The Environmental approval and the licenses to discard and manage waste is the responsibility of the Department of Environment of the Ministry of Agriculture, Natural Resources and Environment and are issued on a national level. Lastly, the Air Emission Permits for power generation using biomass are the responsibility of the Labour Inspection Department of the Ministry of Labour and Social Insurance and are issued on a national level.

Coordination of the various competent authorities and levels is achieved through the One-Stop Shop institution. At the same time, all competent authorities are in constant contact during the evaluation procedure and exchange views on the subject.

(g) How is it ensured that comprehensive information on the processing of authorisation, certification and licensing applications and on assistance to applicants is made available? What kind of information and assistance is available to potential applicants for new renewable energy installations on their applications?All competent authorities responsible for authorisation and licensing of power generation plants using RES have websites providing all necessary information to potential applicants. More specifically, examination of license applications by the Cyprus Energy Regulatory Authority (CERA) is carried out without discrimination, using criteria stipulated by legislation, which are published in the Cyprus Energy Regulatory Authority's website (www.cera.org.cy) and are known to applicants in advance. Furthermore, all information regarding the licensing procedure, the application forms, applications that were submitted, examined and rejected or granted a license are published in the Cyprus Energy Regulatory Authority website.

Additionally, Mandate No 2 of 2006 and the Advisory/Indicative Map for the development of wind farms prepared by the Town Planning and Housing Department can be found at the Department of Town Planning and Housing website www.moi.gov.cy/tph. Circular 3/2008 can be found at the website of the Ministry of the Interior www.moi.gov.cy. Apart from the legislation, licensing procedure and application forms the Department of Town Planning and Housing provides to the public the ability to follow the main progress stages of applications for issuance of town planning licenses by entering the civil identification number at the website www.publicaccess.tph.moi.gov.cy.

The Environmental Department publishes general information regarding the environmental permit issuance procedure, legislation, application forms, guidelines for the preparation of an environmental impact assessment as well as the permits granted in its website (http://www.moa.gov.cy/moa/agriculture.nsf/All/32844F80870DBFE4C2256F72003EDBE0?OpenDocument).

(h) How is horizontal coordination facilitated between different administrative bodies, responsible for the different parts of the permit? How many procedural steps are needed to receive the final authorisation/licence/permit? Is there a one-stop shop for coordinating all steps? Are timetables for processing applications communicated in advance? What is the average time for obtaining a decision for the application?

Coordination of the various competent authorities and levels is achieved through the One-Stop Shop institution. At the same time, all competent authorities are in constant contact during the evaluation procedure and exchange views on the subject. There are time schedules for the licensing procedures of the Cyprus Energy Regulatory Authority, the Town Planning Authority and the Environmental Authority which are made known to applicants. Below please find a detailed description of the procedure for issuance of each required license and the time required by the Cyprus Energy Regulatory Authority to issue its decision.

CYPRUS ENERGY REGULATORY AUTHORITY LICENSING PROCEDURE: VERY SMALL-SCALE RES PLANTS:

This category includes the following facilities:

1. Photovoltaic and Biomass systems with a capacity of up to 20KW;

2. Wind Farms with a capacity of up to 30KW.

According to the decision of the Cyprus Energy Regulatory Authority (CERA) the above categories are fully exempt from the obligations to submit an application and to ensure any type of license from the Cyprus Energy Regulatory Authority, under the condition that they have ensured all other stipulated permits and authorisations from all other concerned authorities of the Republic.

RES STATIONS WITH A CAPACITY OF UP TO 5MW:

This category includes power generation technologies with the use of RES, of a total capacity up to 5MW.

For the facilities under this category, interested parties must submit an application to the Cyprus Energy Regulatory Authority using the special form, in order to receive an exemption for the license. The application must be accompanied by:

1. The stipulated application fee, amounting to EUR 170.86 for each application.
2. The applicant's information
3. A Feasibility Study and a Viability Study
4. Information on the availability of the required primary energy
5. Spatial design for the project and availability of the installation grounds
6. Schedule of works
7. Potential sources of financing
8. Environmental Impact Assessment, where applicable.

RES STATIONS WITH A CAPACITY OF UP TO 5MW:

For the facilities under this category, interested parties must submit an application to the Cyprus Energy Regulatory Authority using the special form, in order to receive the license. The application must be accompanied by:

1. The stipulated application fee which is calculated according to the power required in each application which is EUR 0.08543 per KW of capacity while the minimum amount per application is EUR 170.86
2. The applicant's information
3. A Feasibility Study and a Viability Study
4. Information on the availability of the required primary energy
5. Spatial design for the project and availability of the installation grounds
6. Schedule of works
7. Potential sources of financing
8. Environmental Impact Assessment, where applicable.

Within five (5) days from the day the application is submitted to the Cyprus Energy Regulatory Authority, applicants must publish in a daily newspaper for two consequent days, the special form informing the public on the submittal and the information of the application and the fact that the application file is with the Cyprus Energy Regulatory Authority and is available to the public for examination.

The Cyprus Energy Regulatory Authority examines the information in the application and may request additional information from the applicant within two months from the day the application submittal date. If the Cyprus Energy Regulatory Authority does not request any additional information the application is considered complete.

When the application is considered complete by the Cyprus Energy Regulatory Authority, the applicant must again publish in a daily newspaper for two consecutive days the special form informing the public that the application is considered complete by the Cyprus Energy Regulatory Authority and the public may examine the application file over a period of not less than two weeks and submit to the Cyprus Energy Regulatory Authority any information or objection on the proposed project.

OBLIGATION TO SUBMIT AN ENVIRONMENTAL IMPACT ASSESSMENT TO THE CYPRUS ENERGY REGULATORY AUTHORITY:

Applications submitted to the Cyprus Energy Regulatory Authority for issuance of a License or License Exemption for the Construction and Operation of a Power Generation Plant using Renewable Energy Sources (RES) or Combined Heat and Power Plant, must be accompanied by the following types of Environmental Impact Assessments:

- **. Environmental Impact Assessment for:**
  - Ø Wind Turbines with a capacity not greater than 1MW (1000KW),
  - Ø Photovoltaic facilities with a capacity not greater than 100KW;
  - Ø Hydroelectric power generation plants,
  - Ø Combined heat and power plants
- **. Preliminary Environmental Impact Assessment for:**
  - Ø Wind Turbines with a capacity greater than 30KW and up to 100KW

C. For all other circumstances not mentioned above, as for example:

- Ø Wind Turbines with a capacity greater than 100KW and up to 1MW (1000KW),
- Ø Photovoltaic facilities with a capacity between 20KW and 100KW
- Ø Power generation facilities using biomass with a capacity greater than 20KW,
- Ø Wave energy power plants,

if the Cyprus Energy Regulatory Authority considers it necessary it may request written opinions from the Environmental Department of the Ministry of Agriculture, Natural Resources and Environment, separately for each case.

The Cyprus Energy Regulatory Authority is entitled to request any additional information it deems necessary regarding the environmental parameters in the scope of the Environmental Impact Assessment for correct examination of each application, separately.

The Cyprus Energy Regulatory Authority has three months at its disposal from the date an application is considered complete to evaluate the application and issue its decision to grant a license or reject the application. The Cyprus Energy Regulatory Authority may decide to extend the above evaluation and decision-making time

period with respect to an application. The extension period may not be greater than three months. Applicants are informed in writing by the Cyprus Energy Regulatory Authority.

The decision of the Cyprus Energy Regulatory Authority is published in the official Government Gazette of the Republic and on the Cyprus Energy Regulatory Authority website and is communicated to the applicant in writing. The Cyprus Energy Regulatory Authority must issue the relevant license within forty days from the date of the decision.

The Town Planning and Housing Department has three months at its disposal to examine each application.

(i) Do authorisation procedures take into account the specificities of the different renewable energy technologies? If so, please describe how. If they do not, do you envisage taking them into account in the future?

The particularities, technical development, availability and maturing of various Renewable Energy technologies are taken into consideration during examination and evaluation of the feasibility study that accompanies each application submitted.

(j) Are there specific procedures, for example simple notification, for small-scale, decentralised installations (such as solar panels on buildings or biomass boilers in buildings)? If so, what are the procedural steps? Are the rules publicly available to citizens? Where are they published? Is the introduction of simplified notification procedures planned in the future? If so, for which types of installation/system? (Is net metering possible?)

Very small-scale power generation plants using RES regarding:

1. Photovoltaic and Biomass systems with a capacity of up to 20KW;

2. Wind Farms with a capacity of up to 30KW;

are fully exempt from the obligations to submit an application and to ensure any type of license from the Cyprus Energy Regulatory Authority according to the decision of the Cyprus Energy Regulatory Authority, under the condition that they have ensured all other stipulated permits and authorisations from all other concerned authorities of the Republic.

Furthermore, if the photovoltaic systems with a capacity of up to 100kW are installed in a new or existing building or on the ground inside the building property grounds

(for which a town planning and building permit has been granted) the town planning license is considered granted according to the terms and conditions of Circular 3 of 2008 issued by the Minster for the Interior. However, a building permit must be ensured.

At the same time, the Development Decree considers the town planning license granted in the case of anemometers that do not exceed 30 meters. However a building permit and authorisation from the Civil Aviation Department is required.

k) Where are the fees associated with applications for authorisation/licences/permits for new installations published? Are they related to the administrative costs of granting such permits? Is there any plan to revise these fees?

The fees associated with applications are defined by the Regulation "Application Fees", of Regulatory Administrative Act No 467/2004 and are published in the Cyprus Energy Regulatory Authority website (www.cera.org.cy).

The fees (Regulation 3 on Town and Spatial Planning – Rights – Regulations of 2005) have been published in official Government Gazette of the Republic No 3965 of 11/3/2005, with Regulatory Administrative Act No 119/2005. Furthermore, they can be found on the website of the Town Planning and Housing Department website. The rights specified by the Regulations of 2005 are revised every five years and submitted to the House of Representatives for approval.

(l) Is official guidance available to local and regional administrative bodies on planning, designing, building and refurbishing industrial and residential areas to install equipments and systems using renewable energy sources in electricity and heating and cooling, including in district heating and cooling? If such official guidance is not available or insufficient, how and when will this need be addressed?

The Ministry of Commerce, Industry and Tourism is in constant contact with all concerned public agencies and provides suggestions and advice on issues involving the incorporation of RES system in buildings. As is also mentioned under Table 5 of paragraph 4.1, the Minister for the Interior has issued Mandate No 2 of 2006 and Circular No 3 of 2008, which set out the spatial planning policy for power generation facilities using RES as well as the acceptable ways to incorporate photovoltaic systems into buildings.

At the same time, the Energy Service issues Guides for Energy Investments each year for every investment category for which subsidies/grants are provide, which are available to all interested parties. These Guides contain information both on the required actions and on the required licenses and certificates that investors must ensure to be able to receive the subsidy/grant.

Additionally, the Ministry of Commerce, Industry and Tourism visits municipalities, communities and organized entities at regular intervals (e.g. the Cyprus Employers & Industrialists Federation, the Cyprus Chamber of Commerce and Industry) in order to provide information and guidance on the possibilities to utilize RES for power generation and heating/cooling.

Lastly, the Ministry of Commerce, Industry and Tourism, the Cyprus Employers & Industrialists Federation, the Management Committee of the Special RES Fund and the Electricity Authority of Cyprus co-organise each year the special exhibition "Savenergy", during which visitors are offered the opportunity to receive information on RES and energy saving systems.

m) Is there special training for case handlers of authorisation, certification and licensing procedures of renewable energy installations?

Yes, there is special training for employees handling authorisations and licensing procedures for renewable energy installations.

4.2.2. Technical specifications (Article 13(2) of Directive 2009/28/• C)

(a) To benefit from support schemes do renewable energy technologies need to meet certain quality standards? If so, which installations and what quality standards? Are there national, regional standards that go beyond European standards?

For applications to be considered eligible and admissible in Support Scheme Plans for generation of electricity using RES they must incorporate terms for connection with the Electricity Authority of Cyprus or the Transmission System Operator (TSO) and furnish the relevant Declaration of Conformity, as required by Council Directive 93/68/ECC on CE Marking.

All RES systems connected to the EAC grid must meet the terms for connection of the Electricity Authority of Cyprus and of the Transmission System Operator.

The voltage transducers of small-scale RES systems must meet the following standards:
In order to allow interconnection of the Electrical Installation of a FV system up to 150KWp with the Low Voltage Grid of EAC it must be based primarily on Standard IEC 60364-7-712 for the greatest possible security and efficiency. It is stressed that

the regulations of the 16th edition of the Institution of Engineering and Technology (IET) of Great Britain shall apply to the AC part of a FV facility.

Standards:
Construction, installation and operation of photovoltaic systems are governed by the following standards:
- IEC 61215: Crystalline Silicon Terrestrial Photovoltaic (PV) modules Design and Type Approval.
- IEC 61646: Thin Films PV modules
- IEC 61730:, Part 2 : Requirements for Testing
- IEC 60439-1: Low Voltage Switchgear and Control-gear assemblies
- EN 5160: Power Quality
- European Directive: 73/23/ECC: Electrical Apparatus Low Voltage Directive
- European Directive: 89/336/EEC: Electromagnetic Compatibility
- European Directive: 93/68/EEC: CE Marking
- Engineering Recommendation G77/1

The above are evidenced by the respective Declaration of Conformity, as required by European Directive 93/68/ECC CE Marking

International standards required for large Wind Farm and Biomass facilities which meet the Transmission and Distribution regulations.

4.2.3. Buildings (Article 13(3) of Directive 2009/28/• C)

(a) Reference to existing national and regional legislation (if any) and summary of local legislations concerning the increase of the share of energy from renewable sources in the building sector:

The following apply to the Regulation on the Energy Performance of Buildings (Minimum energy performance requirements for buildings) Cyprus Presidential Decree No 446/2009 of 2009:

- Mandatory solar system installation to satisfy the Domestic Hot Water requirements on every new building used as a residence, according to the Technical Guide of Solar Systems and according to the terms of the competent Building Authority.

- Installation of provisions for use of power generation systems using RES on every new building. Installation of these provisions must be in consultation with the electricity supplier and must include:

    - Installation of larger electricity meter boxes in the building in order to provide additional available space for installation of the RES system meter.

- Installation of the appropriate conduit starting from the meter box and ending at the possible future RES system installation location.

(b) Responsible Ministry(/ies) / authority(/ies):

Energy Service – Ministry of Commerce, Industry and Tourism

(c) Revision of rules, if any, planned: [date]

Scheduled revision by mid 2012 at the latest.

(d) Summary of the existing and planned measures at regional/local levels:

The existing measures concerning the increase of the share of energy from renewable sources in the building sector are exemption from the obligation to ensure a construction and operation license by the Cyprus Energy Regulatory Authority (CERA) for wind farms up to 30kW as well as photovoltaic and biomass systems of up to 20kW, exemption from the obligation of a town planning license for photovoltaic systems up to 20kW under the condition that these are installed in a specific manner, the Support Schemes for installation of RES systems on buildings and the Decree on mandatory installation.

Issuance of an Action Plan for buildings with almost zero energy consumption is scheduled (which shall include the minimum levels for power generated from RES).

(e) Are there minimum levels for the use of renewable energy in building regulations and codes? In which geographical areas and what are these requirements? In particular, what measures have been built into these codes to ensure that the share of renewable energy used in the building sector will increase? What are the future plans related to these requirements / measures?

There are no minimum levels set for the use of renewable energy in buildings at this stage. The only obligation is that described in the response to question 4.2.3.(a) on the mandatory installation of solar systems to satisfy the Domestic Hot Water requirements on every new buildings used as a residence and obligation for installation of provisions for the use of power generation systems using RES on every new building. This obligation applies to all regions of the island.

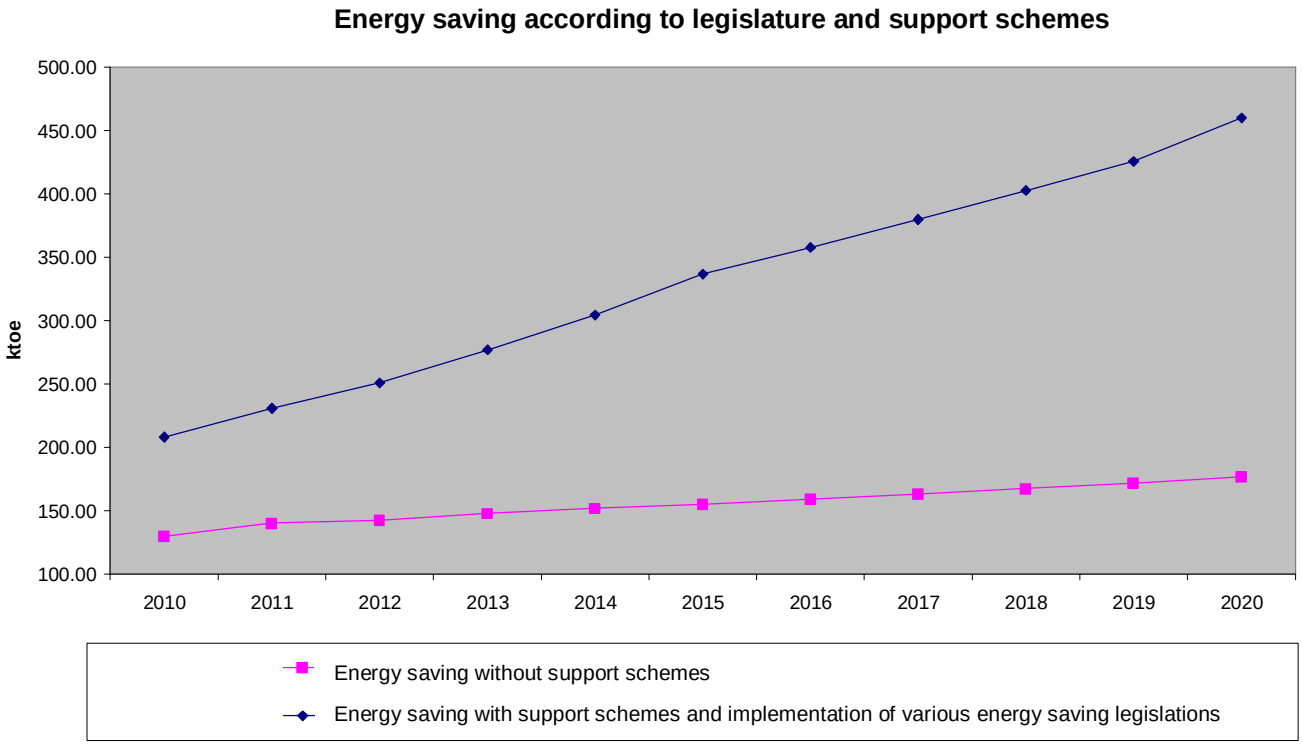
The scheduled revision of legislation on the energy performance of buildings, expected at the latest by mid 2012 and the Action Plan for buildings with almost zero energy consumption are expected to introduce obligations for the minimum quantity of energy from RES on all new buildings.

(f) What is the projected increase of renewable energy use in buildings until 2020? (If possible differentiating between residential – "single-unit" and "multiple unit", commercial public and industrial.)

Table 6 – Estimated share of renewable energy in the building sector (%)

	2005	2010	2015	2020
Residential	20.8	32.1	36.8	41.5
Services and Industry	1.5	7.0	10.3	13.4
TOTAL	**9.03**	**15.4**	**20.5**	**23.9**

The above calculation does not include the share in the final consumption of energy of buildings resulting from electricity saving measures nor the future measures to be taken according to the Action Plan for buildings with almost zero energy consumption. The following graphic representation shows the share in savings with and without the application of support schemes as well as the additional share in energy savings by mandatory energy saving measures.



(g) Have obligations for minimum levels of renewable energy in new and newly refurbished buildings been considered in national policy? If so, what are these levels? If not, how will the appropriateness of this policy option be explored by 2015?

Those included in the response to question 4.2.3.(e) apply to this question as well.

(f) Please describe plans for ensuring the exemplary role of public buildings at national, regional and local level by using renewable energy installations or becoming zero energy buildings from 2012 onwards. (Please take into account the requirements under the EPBD).

The Energy Service has ensured authorisation for financing from European Union Structural Funds for the following projects:

- *Installation of photovoltaic systems in public buildings, schools and military camps.* It pertains to the installation of photovoltaic systems on the roofs of 13 public buildings, 48 schools and 4 military camps. The total capacity of the systems is 1100 KW. The total cost of the project amounted to EUR 5 million. The installations were completed in June 2010.

- *Installation of Solar Area Cooling and Heating Systems in public buildings.* The total budget for the project is EUR one million and installations will be implemented in 2 public buildings.

The scheduled revision of legislation on the energy performance of buildings, expected at the latest by mid 2012 and the Action Plan for buildings with almost zero energy consumption are expected to introduce obligations for the minimum quantity of energy from RES on all new buildings.

Additionally, the following measures are introduced to the revision of Green Public Contracts (2010-2012):

- Installation of photovoltaic systems on the roofs of government buildings. This pertains to the installation of photovoltaic systems mainly on the roofs of schools and military camps. The target is for 50% of these buildings to acquire photovoltaic systems.

- Installation of solar panels initially in 6 schools for preheating of the school central heating system. Inclusion of a greater number of schools under this measure is expected upon completion of the financial evaluation.

(h) How are energy efficient renewable energy technologies in buildings promoted? (Such measures may concern biomass boilers, heat pumps and solar thermal equipment fulfilling eco-label requirements or other standards developed at national or Community level (cf. text of Article 13(6)).

At the current stage, renewable energy technologies are being promoted through the Support Schemes. One of the criteria taken into consideration during evaluation of an application for financial support is the reliability and energy efficiency of technology. The weighting factor of this criterion is significant as it receives 55% of the total grade. In order to ensure authorisation and receive financial support, applications must attain at least 50% of the weighting factor of each criterion.

When the new legislation adopting the provisions of Directive 2009/28/•C passes it will also transpose into national law the requirements relating to the use of ecological labels or other appropriate certificates and standards for the promotion and use of energy efficient renewable energy systems and equipment.

4.2.4. Provision of information (Articles 14(1),(2) and 14(4) of Directive 2009/28/• C)

(a) Reference to existing national and/or regional legislation (if any) concerning information requirements according to Article 14 of Directive 2009/28/EC:

The requirement for the provision of information in accordance with Article 14 of Directive 2009/28/•C, has been incorporated into the provisions of the new national legislation under preparation of the transposition of the provisions of Directive 2009/28/•C into national law.

(b) Responsible body/(ies) for dissemination of information at national/regional/local levels:

The Energy Service of the Ministry of Commerce, Industry and Tourism has been appointed the competent authority.

(c) Summary of the existing and planned measures at regional/local levels (where relevant):

The existing programmes are described in detail in question 4.2.4.(g).

(d) Please indicate how information is made available on supporting measures for using renewable energy sources in electricity, heating and cooling and in transport to all relevant actors (consumers, builders, installers, architects, suppliers of relevant equipment and vehicles). Who is responsible for the adequacy and the publication of this information? Are there specific information resources for the different target groups, such as end consumers, builders, property managers, property agents, installers, architects, farmers, suppliers of equipment using renewable energy sources, public administration? Are there information campaigns or permanent information centres in the present, or planned in the future?

When the various support measures on the use of renewable energy sources as for example the Support Schemes, are approved, all the necessary information is published on the website of the Cyprus Institute of Energy (www.cie.org.cy) and/or the website of the Ministry of Commerce, Industry and Tourism (www.mcit.gov.cy).

Additionally, day-long events are organised in all large towns in Cyprus for the detailed presentation of Support Schemes.

At the same time, the above Energy Service participates each year in the specialised SAVENERGY exhibition and the Cyprus International Fair presenting the latest developments related to RES technologies and Support Schemes.

Lastly, for more efficient processing of the cases of citizens by the Energy Service, the "Citizen's Guide" is prepared each year by the Energy Service providing information related to the application submittal procedure and conditions for inclusion into a Support Scheme.

(e) Who is responsible for publishing information on the net benefits, costs and energy efficiency of equipment and systems using renewable energy sources for heating, cooling and electricity? (Supplier of the equipment or system, public body or someone else?)

With respect to solar water heaters, the supplier is responsible for publishing such information, according to legislation (the law on Commercial Descriptions).

(f) How is guidance for planners and architects provided to help them to properly consider the optimal combination of renewable energy sources, high efficiency technologies and district heating and cooling when planning, designing, building and renovating industrial or residential areas? Who is responsible for that?

In cooperation with various authorities the Energy Service organises and implements educational lectures on RES and Energy Savings issues addressed to specific groups of citizens. A 50-hour training programme addressed to unemployed engineers was successfully completed in 2010 in cooperation with the Cyprus Productivity Centre and the Human Resources Development Authority of Cyprus. The Energy Services cooperates as well with other agencies (the Cyprus Scientific and Technical Chamber, Universities, Municipalities, etc.) in setting up events/day events on RES and Energy Saving issues.

Additionally, the Energy Service organises Savenergy each year, the special exhibition for RES and energy saving systems at the Cyprus International Fair grounds in cooperation with the Cyprus Employers & Industrialists Federation and the support of the Electricity Authority of Cyprus. In this exhibition various groups of citizens are offered the opportunity to receive up close information on the latest developments on RES technologies.

At the same time, each year the Energy Service prepares informational guides on the energy performance of buildings, energy saving in transport, wind, solar and photovoltaic systems, combined heat and power and exploitation of biomass and biogas for power generation, which are distributed to all interested parties free of charge.

(g) Please describe the existing and planned information, awareness raising and training programmes for citizens on the benefits and practicalities of developing and using energy from renewable sources. What is the role of regional and local actors in the designing and managing of these programmes?

The Energy Service considers that information aiming to raise public awareness on issues related to energy and climate change is a key factor in improving the efficiency of our energy system. It is for this reason that the Service has established the following programs for public information, awareness raising and training:

ü Information Campaign for the Public and Greater Public Sector

The Energy service applies a coordinated programme to cultivate energy consciousness and reduce energy consumption in the buildings of the Public and Greater Public Sector, aiming for the Public Sector to play an exemplary role as regards the consumption of energy. To this end, 245 officers responsible for energy saving have been appointed in the various Public and Greater Public Sector buildings. These energy officers are trained by the Energy Service on the implementation of measures aiming to reduce energy consumption and are responsible for the application of these measures in the buildings of the agencies they represent. They receive information on the support measures implemented by the state on the use of renewable energy sources and use of energy saving equipment (RES and Energy Saving Support Scheme) and guidance on the way by which organisations of the public and greater public sector can participate in these. The actions implemented and the energy consumption of these buildings are monitored on an annual basis through the “annual energy consumption and actions report” submitted at the end of each year to the Energy Service. The energy officers also monitor the application of national legislation on the energy performance of buildings as regards the public buildings and buildings of the greater public sector.

The Energy Service organises an annual day event entitled “Energy Saving in the Public and Greater Public Sector” where the Energy Saving Officers of the Public and Greater Public Sector participate and the public and agencies of the Private Sector have an open invitation. The goal of this event is the continued training of these officers and all present on energy saving issues. The event includes a demonstration of actions implemented by public and broader public sector agencies, the energy savings achieved and scheduling of their new actions

aiming to inform the citizens and private agencies and set an example for related actions. All educational material, energy saving guides, announcements made, contact telephone information of the competent Energy Service officers, the annual report and list of functions to save energy are uploaded at he Energy Service website (www.mcit.gov.cy) aiming to provide constant information and contact with Energy Service officers. The list also provides officers with the opportunity to exchange information. The Energy Service also participates in other events and meetings organized by the agencies participating in the programme.

ü Campaign and training and information programmes for 5 to 18 year old students

The Energy Service started in 2010 a campaign of lectures on renewable energy sources and energy saving in the public and private schools of Cyprus. All schools in Cyprus may request a lecture to take place, through the special form which has been forwarded and also uploaded on the website of the Ministry of Commerce, Industry and Tourism. Already, 128 lectures are scheduled in schools (kindergartens, elementary schools, gymnasiums, lyceums and technical-vocational schools) while many schools have visited the Energy Applications Centre where apart from the lecture students are able to see the Solar Systems Control Laboratory operations. Additionally, it created two educational books and two education electronic/on-line programmes (www.cie.org.cy) on energy issues, addressed to secondary and vocational education students (age 13-18) and elementary and pre-elementary school students (age 5-12). The programme and the book (age 13-18) provide important information on the role and importance of energy, the fuel/conventional and renewable energy sources, new technological developments, the Cyprus energy system and many other energy issues. The on-line programme and the book may be also used by any citizen who wishes to acquire useful information on energy in simple words. With respect to ages 5-12, the goal of the book is to provide in understandable language and many images, the fundamental knowledge children of that age should have on the role of energy and the problems created by its use, the conventional (non renewable) and renewable energy sources and how these are used in our country as well as the importance and ways to conserve energy. It was considered advisable to incorporate a section with games and activities at the end of the book so that children can be further familiarised with energy issues through play. Furthermore, special flyers are prepared for children which are distributed in schools (Renewable energy sources in simple words, a student's twelve rules to save energy). All programmes, books and flyers are available free of charge.

The announcement on the on-line educational programme and lectures in schools is published on the Ministry of Commerce, Industry and Tourism website while the presentation of the educational programme took place in the course of a ceremony during which small-scale, educational photovoltaic systems were given

to schools in the scope of the programme for installation of photovoltaic systems on the roofs of public schools.

Moreover, aiming to raise the interest of students and get involved with these issues, the lectures in schools will continue in the new school year while at the same time there will be a completion between secondary and vocational education schools for the works of students associated with RES and energy saving. The work will be evaluated by a special committee and money prizes amounting to EUR 800, 600 and 300 will be awarded to 3 schools during a formal ceremony. The total annual cost of prizes (EUR 1 700) will be paid by the Special RES and Energy Conservation Fund. The terms of participation in the competition and the selection criteria will be formally announced at the start of the school year by the Ministry of Education.

The Energy Service also participates in events organised in schools which are related to RES and Energy Saving.

ü Annual energy saving systems and RES technologies exhibition (Savenergy)

As part of the efforts to promote rational use of energy and encourage the use of renewable energy sources, the Energy Service organises each year, a special exhibition for RES and energy saving systems (Savenergy) at the Cyprus International Fair grounds in cooperation with the Cyprus Employers & Industrialists Federation and the support of the Electricity Authority of Cyprus. Participation of a large number of exhibitors, the great turnout and overall great interest demonstrated by the public make the energy saving exhibition the most significant public information/awareness activity on issues related to energy saving and the use of renewable energy sources. The Energy Service also participates each year in the Cyprus International Fair providing information to the public on the renewable energy sources and energy saving.

ü Energy Saving Award

In cooperation with the Cyprus Employers & Industrialists Federation (OEB) the Energy Service established a special Annual Energy Saving Award. The purpose of this institution is to recognise and award enterprises/households that make efforts towards the more efficient use of energy in their premises. One prize will be awarded to an enterprise and one to a household who have achieved the best results in saving energy according to predefined criteria.

ü Citizen information campaign on the Provisions of the RES and Energy Saving and RES technologies Support Scheme

Information campaigns in various Cyprus towns and villages are organised each year with the commencement of the RES and Energy Saving Support Scheme,

where a great number of citizens wishing to be informed on the RES and Energy Saving subsidy possibilities.

ü Information material

Aiming to develop energy consciousness and for more efficient processing of the cases of citizens the Energy services prepares each year the "Citizen's Guide", the "Energy Proceedings" and informational guides regarding the energy performance of buildings, energy saving in transport, wind, solar and photovoltaic systems, combined heat and power, use of biomass and biogas in generation of electricity, etc. Most of these are available at the website of the Ministry of Commerce, Industry and Tourism (www.mcit.gov.cy)

Furthermore, ad campaigns are organised in the media aiming to provide continuous information of citizens on the significance of saving energy and the renewable energy sources.

ü Campaign for the promotion of energy saving in lighting

As part of the campaign of the Ministry of Commerce, Industry and Tourism to promote energy saving, 6 compact fluorescent lamps (CFL) will be distributed for free to household consumers and non profit organizations. A total of approximately 1 300 000 fluorescent lamps will be distributed during the 2010-2011 period. It is noted that 300 000 energy saving CFL lamps had been distributed in 2007 and 360 000 in 2008. Furthermore, with grants under the RES and Energy Saving Support Scheme, many municipalities have proceeded with the replacement of lighting systems in many parks with photovoltaic systems and compact fluorescent lamps.

ü Organisation of educational lectures and informational events

In cooperation with various authorities the Energy Service organises and implements educational lectures on RES and Energy Savings issues addressed to specific groups of citizens. A 50-hour training programme addressed to unemployed engineers was successfully completed in 2010 in cooperation with the Cyprus Productivity Centre and the Human Resource Development Authority of Cyprus. The Energy Services cooperates as well with other agencies (the Cyprus Scientific and Technical Chamber, Universities, Municipalities, etc.) in setting up events/day-long events on RES and Energy Saving issues. All presentations are also uploaded to the websites www.mcit.gov.cy and www.cie.org.cy.

ü In addition to the efforts of the Energy Service, the Cyprus Wind Energy Association has set a goal to build a classroom where wind farms are installed so it may be used by schools, colleges and universities of Cyprus and from abroad to inform the students and the public in general on issues related to wind energy, to raise environmental awareness and assist educational tourism.

4.2.5. Certification of installers (Article 14(3) of Directive 2009/28/• C)

(a) Reference to existing national and/or regional legislation (if any) concerning certification or equivalent qualification schemes for installers according to Article 14(3) of the Directive 2009/28/EC:

At the present stage there is no existing national legislation or mechanism for the establishment of certification/qualification schemes for installers. This requirement has been incorporated into the provisions of the new national legislation drafted in order to transpose the provisions of Directive 2009/28/•C into national law. This harmonised legislation will determine the certification procedure, the contents of training leading to professional qualification certificate, the time of validity of certificates and the necessary skill requirements for installers.

(b) Responsible body/(ies) for setting up and authorising certification/qualification schemes by 2012 for installers of small-scale biomass boilers and stoves, solar photovoltaic and solar thermal systems, shallow geothermal systems and heat pumps:

The Energy Service of the Ministry of Commerce, Industry and Tourism has been appointed the competent authority.

(c) Are such certification schemes/qualifications already in place? If so, please, describe.

There are no such certification schemes in place at the current stage.

(d) Is information on these schemes publicly available? Are lists of certified or qualified installers published? If so, where? Are other schemes accepted as equivalent to the national/regional scheme?

The list of certified installers is published at the website of the Cyprus Institute of Energy (www.cie.org.cy).

Additional information on the certified / qualified installers may be uploaded upon completion of harmonisation of national law with Directive 2009/28/•C.

(e) Summary of the existing and planned measures at regional/local levels (where relevant):

There are no existing measures for this sector.

The measures planned include transposition into the national legislation of all provisions of Directive 2009/28/•C related to the establishment and authorisation of certification/qualification systems up to 2012 for installers of small-scale biomass boilers and stoves, solar, photovoltaic and solar thermal systems, shallow geothermal systems and heat pumps.

The planned actions also include the creation and operation of a certification/qualification system for installers of small-scale RES system, establishment and keeping of a certified installers registry and an informational campaign on the subject.

4.2.6. Electricity infrastructure development (Article(1) and Article 16(3) to (6) of Directive 2009/28/• C)

(a) Reference to existing national legislation concerning requirements related to the energy grids (Article 16):

The requirements are included in the Transmission and Distribution Rules.

Furthermore, the text of the Connection Agreement Standards governing the generator's and TSO's obligations is published on the TSO website.

(b) How is it ensured that transmission and distribution grids will be developed with a view to integrating the targeted amount of renewable electricity while maintaining the secure operation of the electricity system? How is this requirement included in the transmission and distribution operators' periodical network planning?

According to primary legislation, TSO prepares the Ten-Year Transmission System Development Plan. The design includes modelling of the system and analysis for the 10 following years. The expected RES contribution is included in the model along with grid infrastructure works required for its connection. The 10-year Transmission System Development Plant includes all grid development projects considered necessary in order to maintain a safe and reliable system taking into consideration the new RES projects. The TSO follows the instructions/guidelines of the European

Union in order to ensure that the new infrastructure projects are designed to facilitate the best financial and functional connection of RES projects.

(c) What will be the role of intelligent networks, information technology tools and storage facilities? How will their development be ensured?

Intelligent networks, information technology tools and storage facilities will provide on-line information and data to the TSO which will facilitate the financial management of production. This will lead to fuel savings, maintenance of the minimum required stock and limit the pollution emissions. TSO supports the provision of incentives to Pumped Storage Systems that will provide/ensure functional stock capacity. The unit commitment programme and efficient allocation of production (using software) contribute the optimum financial management of the System.

See also response to question 4.2.7(c) on energy storage systems.

(d) Is the reinforcement of the interconnection capacity with neighbouring countries planned? If so, which interconnectors, for which capacity and by when?

For the moment the Republic of Cyprus does not have any interconnection plans due to the steep and great increase of the seabed at a short distance from shore, which makes such interconnections financially impractical.

However, the ways to overcome these obstacles with new technologies are continuously examined taking into account the financial cost involved.

(e) How is the acceleration of grid infrastructure authorisation procedures addressed? What is the current state and average time for getting an approval? How will it be improved? (Please refer to current status and legislation, bottlenecks detected and plans to streamline procedure with timeframe of implementation and expected results.)

The current state regarding the grid infrastructure authorisation procedures and bottlenecks detected are: The applications for approval and the procedures for the development of grid infrastructure are complex and time-consuming since they include involvement of various agencies (e.g. Town Planning and Housing Department, Environmental Agencies and other government Departments). The time frame and the procedure for acquisition of approval for new grid projects required for the connection of RES generators (any new generator in general) is closely monitored by the TSO, separately for each case. The average time frame for the

issuance of licenses/authorisations for new grid infrastructure projects (substation and line) is set by the Town Planning Department and ranges usually between 1 and 4 years, according to the type, location and/or progress of connection projects. There are cases where this time frame may be up to 10 years. Delays in many cases are due to the acquisition of the town planning license and Passage Permits for the interconnection line and sometimes due to the reaction of local communities. For grid development purposes, the Electricity Authority of Cyprus offers compensatory measures to the affected communities.

Future plans: TSO, the Cyprus Energy Regulatory Authority and the Electricity Authority of Cyprus are discussing ways to overcome reactions to overhead transmission lines passing through private land parcels. These problems are also associated with the development/promotion of RES.

(f) How is coordination between grid infrastructure approval and other administrative planning procedures ensured?

The grid infrastructure approval is based on the 1-year Transmission System Development Plan, which takes various factors into consideration, such as load centres, town planning zoning, impact to the environment, security in supply, etc. The legislation in force governs the development of the grid and the cooperation between the TSO and the Transmission System Owner.

(g) Are priority connection rights or reserved connection capacities provided for new installations producing electricity from renewable energy sources?

All new RES installations have grid connection priority rights. The relevant connection procedures are managed under the greatest possible priority.

(h) Are any renewable installations ready to come online but not connected due to capacity limitations of the grid? If so, what steps are taken to resolve this and by when is it expected to be solved?

There are no such limitations in the current state. One of the goals of the 10-year Transmission System Development Plan is to ensure that there will not be any such

limitations. Connection of the first wind farm is expected within 2010, with the input-output method to an existing transmission line circuit.

(i) Are the rules on cost sharing and bearing of network technical adaptations set up and published by transmission and distribution system operators? If so, where? How is it ensured that these rules are based on objective, transparent and non-discriminatory criteria? Are there special rules for producers located in peripheral regions and regions with low population density? (Cost bearing rules define which part of the costs is covered by the generator wishing to be connected and which part by the transmission or distribution system operator. *Cost sharing rules define how the necessary cost should be distributed between subsequently connected producers that all benefit from the same reinforcements or new lines.)*

The unit prices of equipment required for the connection of generators to the grid are published on the TSO website.

Expenditure commitment: The cost estimation is mainly based on the shallow connection methodology. There are exceptions for cases where connection takes place in electrically remote areas. The connection cost is calculated on the basis of the technically acceptable solution with the minimum cost. With a view to further promote investments in RES, the TSO offers financial benefits in consultation with the Cyprus Energy Regulatory Authority. Thus, the connection cost is apportioned between Transmission System Owner and the Generator on a 50%-50% basis. The Transmission System Owner covers this cost through the Use of System Charges. The Use of System Charges are assumed by all suppliers (except those relating to RES) and rolled over to their clients, in accordance with Article •16.7.2 of the Transmission and Distribution Rules. The expenditure commitment and financial incentives include all direct and indirect expenses (e.g. substation and connection line cost, cost of associated designs/plans, cost of licenses and approvals).

Allocation of cost: TSO encourages existing wind farm applicants who wish to be connected in the same area to apply for their connection to the grid simultaneously so that the connection cost may be allocated more fairly between them. The cost is allocated on the basis of repayable cost, meaning that the first applicant assumes the connection cost and if at a later stage another applicant (RES or not) applies for connection within 5 years from the first connection, the first applicant is entitled to repayment of the part of the cost paid by subsequent applicants.

The 50%-50% policy described above applies to all cases involving the use of RES.

(j) Please describe how the costs of connection and technical adaptation are attributed to producers and/or transmission and/or distribution system operators? How are transmission and distribution system operators able to recover these investment costs? Is any modification of these cost bearing rules planned in the future? What changes do you envisage and what results are expected? (There are several options for distributing grid connection costs. *Member States are likely to choose one or a combination of these. According to the "deep" connection cost charging, the developer of the installation generating electricity from renewable energy sources bears several grid infrastructure related costs (grid connection, grid reinforcement, and extension). Another approach is the "shallow" connection cost charging, meaning that the developer bears only the grid connection cost, but not the costs of reinforcement and extension (this is built into the grid tariffs and paid by the customers). A further variant is when all connection costs are socialised and covered by the grid tariffs.)*

Since the current Use of System Charges (Transmission and Distribution) are not charged to producers using RES and since the Cyprus Energy Regulatory Authority has decided to charge these expenses to the customers, all Use of System Charges (Transmission and Distribution) shall be covered by the customer demand collected by the TSO and the DSO and forwarded to the System Owner on a monthly basis for completion of the development programme.

k) Are there rules for sharing the costs between initially and subsequently connected producers? If not, how are the benefits for subsequently connected producers taken into account?

The methodology relating to the connection cost and allocation of costs is currently being prepared by the TSO. The method of repayable charges is applied as described above in paragraph (i). Thus, the first applicant (the first issued the terms for connection) assumes the connection cost. If the TSO receives a connection application within 5 years from when the new grid projects are activated, then these applicants proportionately assume part of the cost paid by the first applicant.

(l) How will it be ensured that transmission and distribution system operators provide new producers wishing to be connected with the necessary information on costs, a precise timetable for processing their requests and an indicative timetable for their grid connection?

Timetable for processing of requests and information regarding expenses: TSO has prepared the procedure of request submittal and management in order to expedite the procedures and inform applicants (new producers) on the connection cost. This procedure allows the TSO to issue preliminary terms of connection and inform each applicant as to the approximate cost for connection within a certain number of days from the day the request is submitted. Additionally, the procedure allows producers to

proceed to the approval and/or financing procedures simultaneously with the TSO issuance of terms for connection.

Indicative timetable for connection to the grid: TSO assures producers that the new grid substation (necessary for connection of the producer to the existing grid) can be constructed within 18 months from the date all necessary state licenses and other approvals/permits are issued. Furthermore, producers are able to proceed with a call for tenders/offers and other procedures for construction of the new grid substation (relevant to Article 16(5) of Directive 2009/28/EC). Thus producers are able to better control the timetable and construction schedule. The connection line is constructed by the Electricity Authority of Cyprus (Transmission System Owner) and monitored by the TSO. The licensing procedure is more time consuming than the construction period.

4.2.7. Electricity network operation (Article(2) and Article 16(7) and (8) of Directive 2009/28/• C)

(a) How is the transmission and distribution of electricity from renewable energy sources guaranteed by transmission and distribution system operators? Is priority or guaranteed access ensured?

For producers using RES and cogeneration, access by priority is guaranteed by legislation (Transmission and Distribution Rules, Article •16.5). Furthermore, through the Support Schemes that have established the "feed-in tariffs", all energy produced by RES and cogeneration is fed to the grid through mandatory procurement of energy by the Electricity Authority of Cyprus, provided it is allowed by the grid security.

(b) How is it ensured that transmission system operators, when dispatching electricity generating installations give priority to those using renewable energy sources?

When preparing the Nomination for the Dispatch Day, producers using RES submit Nominations according to Article •14.7 of the Transmission and Distribution Rules. All energy produced from RES is given priority in dispatch unless the security and reliability of the system are at risk.

(c) How are grid and market-related operational measures taken in order to minimise the curtailment of electricity from renewable energy sources? What kinds of measures are planned and when is implementation expected? (Market and grid design that enable the integration of variable resources could cover measures such as trading closer to real time (changing from day-ahead to intra-day forecasting and rescheduling of generators), aggregation of market areas, ensuring sufficient cross border interconnection capacity and trade, improved cooperation of adjacent system operators, the use of improved communication and control tools, demand-side management and active demand-side participation in markets (through two-way communication systems — smart metering), increased distributed production and domestic storage (e.g. electric cars) with active management of distribution networks (smart grids).)

According to primary legislation, restriction of power generation using RES is not allowed at present unless the security of the system is at risk. TSO forecasts that the operation of large wind / solar thermal parks may create problems due to the fact that the electrical grid in Cyprus is isolated. Such problems would be associated with financial and grid security issues (e.g. technical minimum of contractual base points during low demand periods). TSO is aware of the future problems and the way to handle them. However, the TSO has chosen not to proceed with changes in legislation for the establishment of functional restrictions to power generation using RES aiming to evaluate the issue and take decisions adapted to the particularities of the Cyprus Electrical Grid, after the first power production using RES is set in operation.

The TSO encourages the use of energy storage systems in order to allow greater production using RES during low demand periods. This will reduce restriction of power generation using RES during low demand periods when the thermal base units must remain in operation. The Electricity Authority of Cyprus is obliged to purchase all electricity generated from RES, thus ensuring their easy access to the market. Furthermore, the Electricity Authority of Cyprus promotes increased use of electricity during low demand periods with different charges that apply during the day for heating, water pumping and other commercial or industrial uses/needs. These measures help in reducing restriction of electricity generated by RES, as described above.

(d) Is the energy regulatory authority informed about these measures? Does it have the competence to monitor and enforce the implementation of these measures?The Cyprus Energy Regulatory Authority approves all tariffs, Transmission and Distribution Rules and Electricity Market Rules which ensure that the European Union Directives on RES are applied correctly. The Cyprus Energy Regulatory Authority may request the TSO to apply additional measures encouraging electricity generation using RES through changes in the existing Transmission and Distribution Rules and Electricity Market Rules as in force by the primary legislation (Laws of 2003 to 2008 on the Regulation of the Electricity Market).

(e) Are plants generating electricity from renewable energy sources integrated in the electricity market? Could you please describe how? What are their obligations regarding participation in the electricity market?

The Cyprus Energy Regulatory Authority is examining the formulation of Market Rules in order to ensure a more appropriate and correct procedure to be followed for the inclusion of new electricity generating units using RES in the electricity market system according to international practice, taking inter alia, very seriously into account the stability and security of electricity supply system with the increased penetration of RES electricity generation technologies, the financial burden incurred by consumers and avoidance of distortions to the electricity market.

Electricity generation units using RES must be registered by the TSO in the Generation Registry (Article 3.1 of the Electricity Market Rules) if they are directly connected to the transmission grid and in the Power Dispatch Registry (Article 3.3 of the Electricity Market Rules) if they are connected to the distribution grid. The Nominations must be submitted according to Article •14.7.11 of the Transmission and Distribution Rules and the Electricity Authority of Cyprus is obliged to purchase all electricity produced at prices approved by the Cyprus Energy Regulatory Authority. Selecting customers may choose to purchase power from licensed suppliers, as provided for in the primary legislation.

(f) What are the rules for charging transmission and distribution tariffs to generators of electricity from renewable energy sources?

In a CERA and TSO effort to encourage the use of renewable energy sources, all producers using RES are exempt from payment of these charges, i.e. the Use of System Charges (Transmission and Distribution) and Charges for Ancillary Services, according to Article •16.7.3 of the Transmission and Distribution Rules.

4.2.8. Biogas integration into the natural gas network (Article 16(7) and Article 16(9) and (10) of Directive 2009/28/• C)

(a) How is it ensured that the charging of transmission and distribution tariffs does not discriminate against gas from renewable energy sources?

As the competent authority for approval of tariffs and charges in the Natural Gas sector through the appropriate Methodology regarding transmission and distribution tariffs to be published at a later stage, the Cyprus Energy Regulatory Authority (CERA) will ensure that there will be no discrimination against gas from renewable energy sources provided that the biogas meets the necessary conditions (e.g. the

biogas has been cleaned and upgraded to the quality of natural gas). It is understood that there will be equal treatment of biogas and natural gas so that biogas can be fully utilised after being conveyed into the natural gas network.

(b) Has any assessment been carried out on the need to extend the gas network infrastructure to facilitate the integration of gas from renewable sources? What is the result? If not, will there be such an assessment?

The subject of natural gas networks is in a preliminary stage and during the first stage design of natural gas pipelines will be focused on the construction of three (3) pipelines to the during the Electricity Authority of Cyprus power stations (Vasilikon, Dekelia, Moni). Already, DEFA (the organisation responsible for importing and distribution/transmission of natural gas) has proceeded in a call for tenders to purchase Consulting Services for the Development of the Natural Gas Transmission and Distribution Network which is currently in the evaluation stage.

The domestic biomass potential (animal farming and industrial waste) has been recorded in the scope of the Study for the Biomass Action Plan (2006) and the Final Evaluation Report on the National Cogeneration Potential in Cyprus (2009). The conclusions of the above studies show that the potential is covered by the licensed electricity generation units using biomass/biogas. Still remaining however is the biogas production potential from sanitary landfills.

Furthermore, at a first glance it seems that the biogas produced from sanitary landfills or urban waste will not affect the design of the three scheduled natural gas pipelines, since the available biomass potential (urban waste and sanitary landfill waste) is not particularly significant (as recorded in the Study for the Biomass Action Plan (2006) and the Final Evaluation Report on the National Cogeneration Potential in Cyprus (2009). Naturally, the issue will be examined in depth at a later stage when the possibility to expand the natural gas network infrastructure is examined.

(c) Are technical rules on network connection and connection tariffs for biogas published? Where are these rules published?

CERA ensures the preparation of Technical Rules defining the minimum technical design and operation requirements for connection with the liquefied natural gas network facilities, storage facilities, other transmission or distribution networks and direct natural gas pipelines. These Technical Rules will include the issue of inclusion

of biogas into the network. The Technical Rules shall ensure the functionality of networks and shall be objective and impartial.

Furthermore, CERA will look into the issue of connection into the network and connection tariffs for biogas.

4.2.9. District heating and cooling infrastructure development (Article 16(11) of Directive 2009/28/• C)

(a) The necessity to build new district heating and cooling infrastructure using renewable energy sources and contributing to the 2020 target, should be assessed. Based on this assessment, are there plans to promote such infrastructures in the future? What are the expected contributions of large biomass, solar and geothermal facilities in the district heating and cooling systems?

There are no district heating or cooling systems in Cyprus at present. However, the assessment of the cogeneration potential study carried out in compliance with Directive 2004/8/•C showed a district heating potential with a thermal load of 60MW, to utilise the thermal load of these electricity generating plants, which currently remains unexploited. At the current stage, this potential is not expected to participate in meeting the 2020 target.

4.2.10. Biofuels and bioliquids – sustainability criteria and verification of compliance (Articles 17 to 21 of Directive 2009/28/• C)

(a) How will the sustainability criteria for biofuels and bioliquids be implemented at national level? (Is there legislation planned for implementation? What will be the institutional setup?)

Directive 98/70/EC of the European Parliament and of the Council of 13 October 1998 relating to the quality of petrol and diesel fuels and amending Directive 93/12/•EC of the Council, as well as its amendments have been transposed in the legislation of Cyprus with the Law of 2003 to 2009 on the Specifications of Petrol and Fuels. This legislation empowers the Minister for Commerce, Industry and Tourism to regulate various issues such as issuance of Decrees inter alia, to determine the specifications for oil and appoint the Chief Inspector and Inspectors to carry out inspections and checks and apply the law in general. Furthermore, Directive 2003/30/•C 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, which was transposed in the legislation of Cyprus with Law of 2005 on the Promotion of the Use of Biofuels or Other Renewable Fuels for Transport, empowers the Minister for Commerce, Industry and Tourism to regulate relevant issues. Both legislations are

implemented by the Energy Service of the Ministry of Commerce, Industry and Tourism, the Officers of which are appointed Inspectors.

Since the provisions of Articles 17 to 19 of Directive 2009/28/•C are also included in Directive 2009/30/•C of the European Parliament and of the Council of 23 April 2009 amending Directive 98/70/•C relating to the quality of petrol and diesel fuels and introduction of a mechanism to monitor and reduce greenhouse gas emissions, and amending Directive 1999/32/•C of the Council as regards the specification of fuel used in inland waterway vessels and repealing Directive 93/12/•EC (the provisions of Articles 7(b) to 7(d)), it was deemed that these should be transposed to the legislation regulating the specifications of oil and fuel.

The law amending the laws on the specifications of oil and fuels is already prepared and provides inter alia, the powers to the Minister to issue a decree determining the sustainability criteria for biofuels and bioliquids. The Minister will issue the relevant Decree after the law is adopted.

(b) How will it be ensured that biofuels and bioliquids that are counted towards the national renewable target, towards national renewable energy obligations and/or are eligible for financial support comply with the sustainability criteria set out in Article 17(2) to (5) of Directive 2009/28/EC? (Will there be a national institution/body responsible for monitoring/verifying compliance with the criteria?)

The methods used for verification of compliance with the sustainability criteria are specified in a decree issued by the Minister for Commerce, Industry and Tourism while monitoring/verification of compliance with the sustainability criteria shall be carried out by the Energy Service (Inspectors enforcing the existing legislation).

(c) If a national authority/body monitors the fulfilment of the criteria, does such a national authority/body already exist? If so, please specify. If not, when is it envisaged to be established?

There is a national authority which will monitor compliance with the criteria; such authority is the Energy Service, which is also responsible for the specifications of fuels.

(d) Please provide information on the existence of national law on land zoning and national land register for verifying compliance with Article 17(3) to (5) of Directive 2009/28/EC. How economic operators can have access to this information? (Please provide information on the existence of rules and distinction between different land statuses, like biodiversity area, protected area etc; and on the competent national authority that will monitor this land register and changes in land status.)

The competent authorities are the Town Planning authorities who are responsible for the town planning and also for exercising planning control. Furthermore, the Minister for the Interior and the Minister for Agriculture, Natural Resources and Environment are responsible for determining the protection areas of the Natura 2000 Network.

The Ministry of Interior in cooperation with the Ministry of Agriculture, Natural Resources and Environment and the Ministry of Commerce, Industry and Tourism will be responsible, according to the new legislation prepared, for determining the sites in the Republic where production of biofuels is not allowed according to Article 17(3) to (5).

Citizens may be informed on the subject through the websites of Ministries regarding areas where the production of biofuels is not permitted.

(e) As far as protected areas are concerned, please provide information under which national, European or international protection regime they are classified.

- The Bern Convention on the Conservation of European Wildlife and Natural Habitats
- The Ramsar Convention on Wetlands of International Importance
- The CBD Convention of Biological Diversity
- The Bonn Convention on the Conservation of Migratory Species of Wild Animals
- Law 140(•)/2005 on the assessment of the effects of certain public and private projects on the environment – Harmonisation with Directive 85/337/•EC
- Law 153(•)/2003) on the conservation and management of natural habitats and wild fauna and flora - Harmonisation with Directive 92/43/•EC
- Law 153(•)/2003) on the conservation and management of wild birds and hunting game birds - Harmonisation with Directive 79/409/•EC

(f) What is the procedure for changing the status of land? Who monitors and reports at national level on land status changes? How often is the land zoning register updated (monthly, annually, bi-annually, etc.)?

Changes to the status of land in public forests are prohibited by the Forest Law of (1967, 1987 and 1991). The Forest Law and regulations ensure effective protection

of state forests from the illegal interventions of third parties and other factors such as forest fires. Change of the status of land of forest areas destroyed by fires or other causes, is prohibited by the law. Change of the status of land in private forests or other planted areas is not restricted by any law or regulation. Private forests may be cleared at any moment and classified under a different status. In the same manner, abandoned private land may be afforested. Private forests destroyed either by fire or other factors are usually afforested even though this is not mandatory. The Competent Authority for the change of the status of land procedure is the Agricultural Department and for forest land it is the Forest Department.

(g) How is compliance with good agro-environmental practices and other cross-compliance requirements (required by Article 17(6) of Directive 2009/28/EC) ensured and verified at national level?

There is no biofuels or bioliquids production from domestic farming in Cyprus mainly due to shortage of available farmland and water. As a consequence, Cyprus relies exclusively on imports of raw materials and or biofuels. Compliance with the good agro-environmental practices and other cross-compliance requirements shall be ensured and verified with the necessary certificates importers will be required to furnish.

(h) Do you intend to help develop voluntary "certification" scheme(s) for biofuel and bioliquid sustainability as described in the second subparagraph of Article 18(4) of Directive 2009/28/EC? If so, how?

Due to the limited biomass available in Cyprus, development of a “certification” scheme for biofuels and bioliquids sustainability is not expected at the present stage.

4.3. Support schemes to promote the use of energy from renewable sources in electricity applied by the Member State or a group of Member States

Regulation

Regulation can set target(s) and obligations. In case there is such an obligation please describe it in detail:

DOES NOT APPLY TO THE CYPRUS CASE

(a) What is the legal basis for this obligation/target?

(b) Are there any technology-specific targets?

(c) What are the concrete obligations/targets per year (per technology)?

(d) Who has to fulfil the obligation?

(e) What is the consequence of non-fulfilment?

(f) Is there any mechanism to supervise fulfilment?

(g) Is there any mechanism to modify obligations/targets?

Financial support

(a) Name and short description of the scheme?

Five Support Schemes will be implemented in 2010 which are detailed below:

1. Support schemes for financial incentives in the form of state grants and/or subsidies in the sector to encourage the use of renewable energy sources and energy saving.

There are three types of Schemes with the following categories and subcategories for electricity generation:

A. *Support Scheme to Save Energy and to encourage the Use of Renewable Energy Sources for Natural Persons and Organisations not engaged in an economic activity.*

This Scheme includes the following categories and subcategories for generation of electricity using RES:

• •: Renewable Energy Sources (RES)

§ • •1 – Small-scale wind farms with a generation capacity of up to 30kW

§ • •2 – Small-scale photovoltaic systems with a capacity up to 20kW, connected to the grid to the extent that the total generation of electricity does not exceed the requirements of the premises on which it is installed

§ • •3 – Stand-alone photovoltaic systems (not connected to the grid) with a total capacity of up to 20kW, combined or not with other power generation systems

- **• • – Combined Heat and Power (CHP)**

B. <u>Support Scheme to Save Energy and to Encourage the Use of Renewable Energy Sources for Natural Persons and Legal Entities as well as agencies of the public sector engaged in an economic activity.</u>

This Scheme includes the following categories and subcategories for generation of electricity using RES:

• •: Renewable Energy Sources (RES)

- N • 1 – Small-scale wind farms with a generation capacity of up to 30kW

- • •2 – Photovoltaic systems
  - v • •2.1 – Photovoltaic systems connected to the grid, with a total capacity of up to 20kW.
  - v • •2.2 - Stand-alone photovoltaic systems (not connected to the grid) with a total capacity of up to 20kW, combined or not with other power generation systems

- • •3 – Hydroelectric systems
  - v • •3.1 - Small-scale hydroelectric projects in rivers and waterways in general
  - v • •3.2 – Small-scale hydroelectric projects in existing plumbing networks

- • •4 – Generation of electricity using RES (All technologies)

Under this category all technologies using Renewable Energy Sources, including technologies not mentioned in this plan, such as **wave energy** (Oscillating water columns, wave dragon, wave buoy etc.), **solar thermal energy** (Solar concentrated PV systems, concentrated solar thermoelectric using parabolic mirrors and/or vacuum tubes), **geothermal energy** and other technologies using Renewable Energy Sources to generate electricity fed to the grid.

- • •8 – Biomass exploitation
  - v • •8.1 Combined Heat/Cooling and Power using biomass

• •: Combined Heat/Cooling and Power (CHP)

C. *Support Scheme Encouraging Power Generation for Large-scale Commercial Wind Farms, Solar Thermal and Photovoltaic Systems, Exploitation of Biomass*

This Scheme includes the following categories and subcategories for generation of electricity using RES:

- Ø • • • – Large-scale Commercial Power Wind Farms
- Ø • • • - Large & Small Scale Photovoltaic Power Systems
- Ø • • H – Large-scale Commercial Solar Thermal Power Systems
- Ø • • • – Generation of electricity using Biomass and Biogas released from sanitary landfills

Financing of the three above Schemes comes from the revenue of the RES and Energy Conservation Fund, resulting from the energy tariff imposed on all consumers of electricity.

2. Subsidisation of the capital cost for project connection to the grid by 50% and subsidisation of the license acquisition cost for connection projects, also by 50%.

All RES technologies pay 50% of the capital cost of connection projects to the Transmission System Operator or the Distribution System Operator (according to the required connection capacity). The remaining 50% is paid by the Owner of the Transmission and Distribution Systems (the Electricity Authority of Cyprus) and recovered through the Transmission Use of System Charges.

It should be noted that charges are based on the shallow connection method. Any cost arising from the deep connection method is not charged to applicants but is recovered through the Use of System Charges.

Moreover, 50% of the cost for acquisition of the necessary licenses (e.g. Town Planning Permit, Building Permit, etc.) is paid by the generator using RES and 50% by the Electricity Authority of Cyprus as the Transmission System Owner. After their construction, the connection projects are included in the property of the Transmission System Owner.

3. Cost of ancillary services

RES technologies are not charged ancillary services charges or any cost that may arise from maintaining additional reserve capacity.

4. Use of System Tariffs and losses

RES technologies are not charged Use of System Charges or losses. System losses are indirectly recovered through the Use of System Tariffs.

5. Provision of Support for Investments for Improvement of Competitiveness and Management of Waste in Farms

The Scheme aims to establish aid to encourage the construction of infrastructure, installation of the respective equipment and rational management of pigwaste/ waste from piggeries, dairy farms, poultry abattoirs and manure as to avoid the risk of environmental pollution and pollution of water resources in particular (by replacement of makeshift, insufficient, non insulated and often unlicensed collection tanks), environmental upgrading of piggeries / dairy farms / poultry abattoirs (reduction of aggravation due to foul smells and flies) and simultaneous improvement of the financial viability of undertakings through the ability to sell the surplus energy produced.

The support may be granted to the beneficiary in two instalments, during the project construction stage under the condition that upon operation the unit meets the requirements for acquisition of a Disposal License. The support granted will cover 40% of eligible expenses for favoured areas and 50% for less favoured areas.

The maximum/minimum support limit per undertaking/unit amounts to:

(b) Is it a voluntary or obligatory scheme?

Schemes (1, 5) are voluntary.

Schemes (2, 3, 4) are obligatory

(c) Who manages the scheme? (Implementing body, monitoring authority)

The implementing body for Scheme (1) is the Special Fund created according to the Law “on the Promotion and Encouragement of the Use of Renewable Energy Sources and Energy Saving” of 2003. Pursuant to this legislation, the Support Schemes are monitored by the Ministry of Commerce, Industry and Tourism. Specifically, the Minister monitors the establishment of the Management Committee, management and administration of the Fund and the activities and persons receiving support or financing.

The Implementing Body for schemes (2), (3) and (4) is the Transmission System Operator or the Distribution System Operator and the monitoring authority is the Cyprus Energy Regulatory Authority.

The implementing body for scheme 5 is the Cyprus Agricultural Payments Organisation and the monitoring authority is the Ministry of Agriculture, Natural Resources and Environment.

(d) What are the measures taken to ensure availability of necessary budget/funding to achieve the national target?

One measure under examination is to increase the energy tariff, which will increase the Special Fund revenue. As mentioned before, the Special Fund is the main funding tool in achieving the national target.

The Energy Service proposed an increase of the energy tariff from 0.22 euro cents/•Wh to 0.44 euro cents/KWh. The proposal made by the Energy Service is already approved by the Council of Ministers and is pending approval by the House of Representatives.

Another measure under examination is the incorporation of proceeds from auctioning of carbon emissions allowance (from 2013 onwards) to the Special Fund budget so they can be used for financial incentives in the form of a state grant and/or subsidy in the renewable energy sources and energy saving sector.

(e) How is long-term security and reliability addressed by the scheme?

Scheme 1

Further to the submittal of an application and approval by the Managing Committee of the Special Fund for RES only for kilowatts fed to the Electricity Authority of Cyprus network, electricity generators using RES will receive a grant from the Special Fund in addition to the price paid by EAC, according to the RES systems used. The term of the grant from the Special Fund for RES is set for the first 15-20 years, according to the plan. The grant amount will be adjusted in the event of revision of the price paid by EAC to generators using RES, so that the total price offered to generators using RES remains fixed for the duration of the relevant agreement signed between the generator using RES and the Special Fund for RES.

With regard to schemes 2,3 and 4, security and reliability are considered certain since they are mandatory.

(f) Is the scheme periodically revised? What kind of feed-back or adjustment mechanism exists? How has the scheme been optimised so far?

Support schemes are revised at the end of each year taking into consideration the technological developments, cost differentiations and public response to each technology.
The support schemes were first implemented in 2004 and covered the period 2004-2008 in the scope of the first Action Plan (2002-2010). The scheme was revised in 2007 with the addition of one more category to the scheme plan, which pertained to the generation of electricity using biomass.

Consequently, due to the increased public interest in investments related to the exploitation of renewable energy sources, the Energy Service of the Ministry of Commerce, Industry and Tourism drafted a new Action Plan for the period 2009-2013 and amendments to the Support Scheme for the same period in cooperation with all concerned agencies.

The three new plans have been approved both by the Commissioner for State Aid Control and the Council of Ministers and two of these have been implemented since 23 March 2009. The new support scheme plan to encourage generation of electricity by large-scale stations using RES, has been implemented since July 2009 further to approval by the competent Directorates of the European Union.

The three Plans are comprised of 21 support scheme categories/subcategories.

The innovations introduced by the New Plan (2009-2013) in relation to the old plan (2004-2008) for natural and legal entities are:

- Increase of the total sale price of kilowatt hour generated from small-scale PV systems with a capacity up to 20 KW which are connected to the grid from 20.5 eurocents to 22.5 euro cents for 15 years for natural persons and organisations not engaged in an economic activity.
- Increase of the rate of maximum grant for installation of heat pumps with heat exchanger for heating/cooling from 30% of eligible expenditures for a maximum grant amount of EUR 170 860 to 40% of eligible expenditures for a maximum grant amount of EUR 200 000.

The novelties of the New Action Plan regarding grants to encourage generation of electricity by large-scale stations using RES are:

- Introduction of a new grant category for generation of electricity by solar thermal stations (the total sale price of generated kilowatt hours is 26 eurocents for 20 years).
- Subsidy for photovoltaic systems with a capacity of up to 150 •W, instead of up to 20 •W as was the case up to present (the total sale price of generated kilowatt hours is 34 eurocents for 20 years).

- Increase of the total sale price of kilowatt hour generated from photovoltaic systems with a capacity up to 20 KW which are connected to the grid to 36 euro cents for 20 years from 33.5 eurocents for 15 years as was the case up to now**.**
- Increase of the total sale price of kilowatt hour generated from large-scale wind farms from 9.2 eurocents for 15 years to 16.6 euro cents for 20 years.

The scheme was revised during the current year taking into account the technological developments, cost differentiations and the international economic crisis as well.
The changes effected pertain to the higher limits of grants for certain categories. The price and duration of subsidies have not been changed.

Scheme 5 is in force from 2007 to 2013.

(g) Does support differ according to technology?

Contrary to Schemes 2, 3 and 4, support under Scheme 1 differs according to technology.

Under scheme 5 only installation of biological treatment is subsidised (aerobic or anaerobic stabilisation using fermentation) with production of biogas and electric energy, composting/co-composting.

The differentiations per technology under Scheme 1 can be seen in the following tables:

TABLE 1: SUPPORT SCHEME ENCOURAGING THE USE OF RENEWABLE ENERGY SOURCES FOR NATURAL PERSONS AND ORGANISATIONS NOT ENGAGED IN AN ECONOMIC ACTIVITY			
REF.	**INVESTMENT**	**GRANT/BENEFICIARIES/ PRICE/KILOWATT HOUR SUBSIDY**	**MAXIMUM GRANT AMOUNT FOR 2010**
• •:	**Renewable Energy Sources**		
• •1	**Wind Farms**		
• •1.1	**Small-scale wind farms generating electricity with a capacity of up to 30kW**	The subsidy for natural persons, school commissions, charity organisations, municipalities and communities and other non profit organizations not engaged in an economic activity will be **55%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is **EUR 50 000** **Sale price of generated KWh:** Only the purchase price from EAC*. No other support granted	Not Applicable
• •4	**Photovoltaic Systems (duration of grant 15 years)**		
• •4.1	**Small-scale photovoltaic systems of capacity up to 20kW, connected to the grid.**	Grant **0%** at the initial investment cost. Total KWh sale price = 38.3 euro cent/kWh subsidy=38.3 euro cent/kWh – (EAC purchase price)	Not Applicable
• •4.2	**• •3 – Stand-alone photovoltaic systems (not connected to the grid) with a total capacity of up to 20kW, combined or not with other power generation systems using RES**	The subsidy for households, school commissions, charity organisations, municipalities and communities and other non profit organisations not engaged in an economic activity will be **55%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is **EUR 44 000**	Not Applicable

TABLE 2: SUPPORT SCHEME ENCOURAGING THE USE OF RENEWABLE ENERGY SOURCES FOR NATURAL PERSONS, LEGAL ENTITIES AND PUBLIC SECTOR AGENCIES ENGAGED IN AN ECONOMIC ACTIVITY			
REF.	**INVESTMENT**	**Grant per Type of Support**	
		Regional Support	**Support *de minimis*/ *Special grants***
• •1	**Small-scale wind farms for generation of electricity**		
	• •1.1 Small wind farms with electricity generation capacity of up to 30kW	**15% or 25% or 35%** of eligible budget, according to the category of undertaking (large, medium, small). The maximum grant amount is **EUR 45 000 per station**	**40%** of the eligible budget under the restriction of maximum eligible expenditures. **The maximum grant amount is EUR 45 000 per station**
	• •1.2 **Wind turbines pumping water**	**15% or25% or 35%** of eligible budget, according to the category of undertaking (large, medium, small). The maximum grant amount is **EUR 20 000 per station**	**40% of the eligible budget of eligible expenditures** **The maximum grant amount is EUR 20 000 per station**
• •3	**Photovoltaic Systems**		
	• •3.1 Photovoltaic systems connected to the grid of the electricity provider, with a capacity of up to 20kW	-	**Note: This category fall under the Scheme for generation of electricity from large-scale wind farms, solar thermal, photovoltaic systems and systems exploiting biomass** **The Total Sale Price per kWh is 36 euro cent/** •Wh for 20 years. More details as mentioned in the scheme above.

	• •3.2 Stand-alone photovoltaic systems (not connected to the grid of the electricity provider), with a capacity of up to 20kW	**15% or 25% or 35%** of eligible budget, according to the category Of the undertaking (large, medium small). The maximum grant amount is **EUR 50 000 per station**	**40%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is EUR 32 000 per station
	• •3.3 Stand-alone photovoltaic systems used to pump water, up to 20kW		
• •4	**Desalination using RES**		
	Desalination using RES	**15% or 25% or 35%** of eligible budget, according to the category of the undertaking (large, medium small). The maximum grant amount is **EUR 50 000 per station**	**40% grant on the eligible budget under the restriction of maximum eligible expenditures.** **The maximum grant amount is EUR 50 000 per station**
• •5	**Hydroelectric Systems**		
	• •5.1 Small hydroelectric projects in rivers and waterways in general • •5.2 Small hydroelectric projects in existing plumbing networks	**15% or 25% or 35%** of eligible budget, according to the category of the undertaking (large, medium small). The maximum grant amount is EUR 50 000 per station	**40% of the eligible budget under the restriction of maximum eligible expenditures.** **The maximum grant amount is EUR 50 000 per station**
• •6	**Generation of electricity using RES**		
	ALL OTHER TECHNOLOGIES	-	-

TABLE 3: SUPPORT SCHEME ENCOURAGING GENERATION OF ELECTRICITY FROM LARGE COMMERCIAL WIND FARMS, SOLAR THERMAL AND PHOTOVOLTAIC SYSTEMS, USING BIOMASS				
REF.	**INVESTMENT**	**Grant**	**Total Sale Price of •Wh**	**Form of support**
• • •	**Large-scale wind farms for generation of electricity**			
	• • •1 Large-scale commercial systems	**Grant 0%,** Only subsidy of the energy produced for the first 20 years the system is in operation	**EUR 0.166/•Wh** (Subsidy= 0.166 -EAC Purchase price)	Environmental
• • •	**Large-scale & Small-scale photovoltaic systems to generate electricity**			
	• • •1 Large-scale commercial photovoltaic systems of capacity from 21 to 150•W, connected to the grid of the electricity provider.	**Grant 0%,** Only subsidy of the energy produced for the first 20 years the system is in operation	**EUR 0.34/•Wh** (Subsidy= 0.34 -EAC Purchase price)	Environmental
	• • •1 Small-scale photovoltaic systems of capacity up to 20•W, connected to the grid of the electricity provider.	**Grant 0%,** Only subsidy of the energy produced for the first 20 years the system is in operation	**EUR 0.36/•Wh** (Subsidy= 0.36 -EAC Purchase price)	Environmental
• • •	**Large-scale solar thermal systems for generation of electricity**			
	• • •1 Large-scale solar thermal systems connected to the electricity provider's grid.	**Grant 0%,** Only subsidy of the energy produced for the first 20 years the system is in operation	**EUR 0.26/•Wh** (Subsidy=0.26 -EAC Purchase price)	Environmental
• • •	**Exploitation of Biomass and Biogas released from sanitary landfills**			
	• •1 Electricity generated through exploitation of biomass	**Grant 0%,** Only subsidy of the energy produced for the first 20 years the system is in operation	**EUR 0.135/•Wh** (Subsidy=0.1179 + 0.0171 premium* - EAC purchase price+)	Environmental
	• •2 Electricity generated through exploitation of biogas released from sanitary landfills	**Grant 0%,** Only subsidy of the energy produced for the first 20 years the system is in operation	**EUR 0.1145/•Wh** (Subsidy=0.0974 + 0.0171 premium** - EAC purchase price)	Environmental

(h) What are the expected impacts in terms of energy production?

Up to present it has been proven that support schemes have a positive impact on the energy production. The existence of support schemes is a guarantee of stability for investors who proceed with greater ease in implementing their investments contrary to cases where there are no support schemes from which investors can benefit.

(i) Is support conditional on meeting energy efficiency criteria?

One of the criteria taken into consideration during evaluation of the application for financial support under scheme 1, is the reliability and energy efficiency of technology. The weighting factor of this criterion is great as they receive 55% of the total grade. In order to ensure approval and receive financial support, applications must attain at least 50% of the weighting factor of each criterion.

The application evaluation criteria and weighting factors of each criterion are published along with each Support Scheme. The Support Schemes are published in the website of the Cyprus Institute of Energy (www.cie.org.cy).

(j) Is it an existing measure? Could you please indicate national legislation regulating it?

All measures are existing measures. The national legislation regarding scheme 1 is the "Law on the Promotion and Encouragement of the Use of Renewable Energy Sources and Energy Saving" of 2003" (33I/2003) and for schemes 2, 3 and 4 it is Article •16.7.2.2 Version 2.0.0 of the Transmission and Distribution Rules.

The legal basis for scheme 5 is Article 20(b)(i) and Article 26 of Regulation (EC) No 1698/2005, Article 17 of Regulation (EC) No 1974/2006 and Annex II point 5.3.1.2.1. application of the Scheme is supported by the following harmonised Legislation:

Laws of 2002 to 2006 (No 106(•)/ 2002, No. 160(•)/ 2005, No. 76(•)/ 2006) “On the Control of Water Pollution”.
Law 140(•)/ 2005 “The Law on Assessment of Impact to the Environment from Certain Projects”.
Law 56(•)/ 2003 “On the comprehensive prevention and control of pollution” and European Directive (EC) No 96/61/•C.

k) Is this a planned scheme? When would it be operational?The schemes are being implemented already.

(l) What start and end dates (duration) are set for the whole scheme?

Scheme 1 applies to the period 2009-2013 with a right to finish the investments by 2015, while end dates or expiration dates have not been set for schemes 2, 3 and 4.

Scheme 5 is in force from 2007 to 2013.

m) Are there maximum or minimum sizes of system which are eligible?With respect to scheme 1 there are maximum sizes for eligible systems regarding photovoltaic systems, where the maximum installed capacity of a system must not exceed 150kW per applicant under the Large-scale Electricity Generation Scheme and 20kW for Support schemes for Natural and Legal Entities not engaged in an economic activity.

Additionally, under Support schemes for Natural and Legal Entities engaged or not engaged in an economic activity, the wind farms must not exceed a capacity of 30kW per applicant.

Schemes 2, 3 and 4 apply to all RES technologies without any restrictions (provided that the application for connection to the grid is approved).

Under scheme 5 only installation of biological treatment is subsidised (aerobic or anaerobic stabilization using fermentation) with production of biogas and electric energy, composting/co-composting, under the following terms. Where an animal farming undertaking produces more energy than can be used at the station, it is considered expedient and rational that the surplus quantity is sold for reasons of energy saving. Participants in Scheme 5 are entitled to sell the produced energy and compost provided that:

a) the net income from the sale of energy and compost will not exceed 5% of the total gross proceeds of the undertaking, and
b) the total energy and compost sold outside the undertaking does not exceed 45% of the total energy and compost produced.

(n) Is it possible for the same project to be supported by more than one support measures? Which measures can be cumulated?

Support under scheme 1 cannot be cumulated with other state support or community support for the same eligible expenditures. Beneficiaries who have received any other grant under another Scheme for the same machinery and equipment are not entitled to submit an application.

Applications for investment proposals related to the same materials/equipment for which a grant has been already issued according to this Scheme will not be accepted or subsidised. Grants provided for different materials/equipment are calculated according to the total amount of investment that falls under the provisions and limitations of this Scheme.

However, a RES project may receive financial support under schemes 2, 3 and 4 and it may be included at the same time in the Support scheme of the Ministry of Commerce, Industry and Tourism, described under scheme 1.

(o) Are there regional/local schemes? If so, please detail using the same criteria.

Regional Support

The one form of support implemented under the Support scheme for natural and legal entities engaged in an economic activity is Regional, according to the Regional Aid Map and Guidelines regarding state aid of a regional nature (State aid •814/2006–Cyprus) and definition of micro, small and medium-sized enterprises (Official Journal of the European Union ISSN L124 of 20/05/2003 p.0036-0041).

Not entitled to receive regional aid:
§ Enterprises engaged in the fisheries and aquaculture sector.
§ Enterprises engaged in the primary production of agricultural products listed in Annex 1 of the Treaty establishing the European Community (EC Treaty).
§ Enterprises engaged in the manufacturing and marketing of products which substitute or imitate milk products, as referred to in Article 3(2) of Council Regulation (EEC) No 1898/87.
§ Enterprises in difficulty in the meaning of Article 1(7) of Regulation (•C) No 800/2008. For the purposes of Regulation (EC) No 800/2008, a SME shall be considered to be an undertaking in difficulty if it fulfils the following conditions:
o in the case of a limited liability company, where more than half of its registered capital has disappeared and more than one quarter of that capital has been lost over the preceding 12 months; or

o in the case of a company where at least some members have unlimited liability for the debt of the company, where more than half of its capital as shown in the company accounts has disappeared and more than one quarter of that capital has been lost over the preceding 12 months; or

o whatever the type of company concerned, where it fulfils the criteria under its domestic law for being the subject of collective insolvency proceedings.

It should be noted that according to Article 7(1) of Regulation (EC) No 800/2008, that SME which has been incorporated for less than three years shall not be considered to be in difficulty with regard to that period unless it meets the condition set out in the legislation of the Republic of Cyprus for being the subject of collective insolvency proceedings.

§ undertakings which are subject to an outstanding recovery order following a previous Commission Decision declaring an aid illegal and incompatible with the common market as provided for under Article 1(6) of Regulation (EC) No 800/2008.

Aid under this category is based on Commission Regulation (EC) No 800/2008 of 6 August 2008 on considering certain categories of aid compatible with the common market within the meaning of Articles 87 and 88 of the Treaty (General Block Exemption Regulation per category) (OJ L 214 of 9/8/2008, p.3). The definitions and meanings referred to in this Scheme shall have the same meaning as the above Regulation.

The Regional aid is an existing measure for the years 2009-2013 and with the same restrictions cited in question 4.3. (m)

Specific questions for financial support of investment:

(a) What is granted by the scheme? (subsidies, capital grants, low interest loans, tax exemption or reduction, tax refunds)

The financial aid under scheme 1 is in the form of:
(i) grants on the capital expenditure and/or
(ii) sale or subsidy of the electricity produced by RES applications. In the second case, EAC buys the electricity produced at a fixed price (set by the Cyprus Energy Regulatory Authority) and the subsidy (the difference between the price paid by EAC and the total kilowatt sale price) is paid by the Special Fund.

Additionally, as mentioned above under point 4.3.(a) the connection projects under scheme 2 are subsidised by 50%. The remaining 50% of the cost is paid by EAC (Transmission System Owner).

The financial aid under scheme 5 is in the form of a grant on the capital expenditure. Installation of biological treatment is subsidised (aerobic or anaerobic stabilization) using fermentation, producing biogas and electricity, composting/co-composting is subsidised with a maximum subsidy mount of EUR 400 000 and a minimum amount

of EUR 40 000. The exact maximum limits per section may be defined according to the relevant NORMS, according to the proposed methodology, if there is historic cost data on the specific methodology/technology and shall be revised at regular intervals.

It should be noted that in the scope of examining the way for inclusion and participation of RES in the electricity market, referred to in Page 49(e), the Cyprus Energy Regulatory Authority is re-examining the issue in order to redefine it based on the marginal market price, aiming to equal treatment of suppliers and avoidance of distortions in the electricity market.

(b) Who can benefit from this scheme? Is it specified for certain technology(/ies)?

With respect to scheme 1, beneficiaries differ according to the scheme category as described below:

The beneficiaries for the investment referred to in the financial support chapter 4.3.(a).1.• are:

In order to submit an application, beneficiaries must have not declared bankruptcy, or be subject to insolvency proceedings, convicted by criminal court and must meet the following eligibility conditions:

§ Natural persons not engaged in an economic activity, who reside permanently in areas under the control of the Republic of Cyprus.
§ Service providers in favour of the society and other services or a social or individual nature (school commissions, charity institutions, monasteries, churches, municipalities, communities, state services, etc.) operating in areas under the control of the Republic of Cyprus which are not engaged in an economic activity.

The beneficiaries for the investment referred to in the financial support chapter 4.3.(a).1.B are:

Every natural or legal entity engaged in an economic activity is entitled to submit an application. In order to submit an application, beneficiaries must have not declared bankruptcy, or be subject to insolvency proceedings, convicted by criminal court and must operate in areas under the control of the Republic of Cyprus:

Two types of aid are implemented under this Scheme; the Regional aid and the de minimis aid.

Regional Aid Beneficiaries
Not entitled to receive regional aid:
§ Enterprises engaged in the fisheries and aquaculture sector.
§ Enterprises engaged in the primary production of agricultural products listed in Annex 1 of the Treaty establishing the European Community (EC Treaty).

§ Enterprises engaged in the manufacturing and marketing of products which substitute or imitate milk products, as referred to in Article 3(2) of Council Regulation (EEC) No 1898/87.
§ Enterprises in difficulty in the meaning of Article 1(7) of Regulation (•C) No 800/2008. For the purposes of Regulation (EC) No 800/2008, a SME shall be considered to be an undertaking in difficulty if it fulfils the following conditions:
o in the case of a limited liability company, where more than half of its registered capital has disappeared and more than one quarter of that capital has been lost over the preceding 12 months; or
o in the case of a company where at least some members have unlimited liability for the debt of the company, where more than half of its capital as shown in the company accounts has disappeared and more than one quarter of that capital has been lost over the preceding 12 months; or
o whatever the type of company concerned, where it fulfils the criteria under its domestic law for being the subject of collective insolvency proceedings.

For all categories of investment implemented within the Regional Support Map, applicants are entitled to select the form of aid they wish to receive, provided they meet all criteria and conditions defined therein.

Beneficiaries of de minimis aid
The *de minimis* does not apply to:
§ Enterprises engaged in the fisheries and aquaculture sectors;
§ enterprises engaged in the primary production of agricultural products;
§ for acquisition of commercial road transport vehicles granted to undertakings that perform commercial road transport on behalf of others;
§ Enterprises considered to be in difficulty within the meaning of community guidelines on state aid for rescuing and restructuring firms in difficulty (OJ C 244 of 11/10/2005, p.2). It should be noted that this definition has a wider meaning that the corresponding definition in Regulation (EC) No 800/2008.

Beneficiaries of Special Grants
Legal or Natural entities engaged in an economic activity, **but not affecting completion and/or trade** shall receive the Special Grant, exclusively.

Any enterprise may be a beneficiary for the investment cited in the financial support chapter 4.3.(a).1.C, meaning every natural or legal entity under public or private law, with or without legal personality, engaged in an economic activity (as defined according to community law on completion). *That is to say that the meaning of enterprise is not restricted to a company or a natural or legal person engaged in economic activity but could include a group of companies or various economic units/natural persons engaged in common as a single economic entity.* In order to submit an application, beneficiaries must have not declared bankruptcy, or be subject to insolvency proceedings or convicted by criminal court:

Entitled to participate in scheme 5 are all natural or legal persons, owners of piggeries, dairy farms, poultry abattoirs and manure with aerobic biological treatment,

anaerobic biological treatment combined with the production of biogas and electricity, composting/co-composting.

(c) Are applications continuously received and granted or are there periodical calls? If periodical, could you please describe the frequency and conditions?

Plans under scheme 1 close each year for accounting purposes and re-open following the necessary approvals by the State Aid Commissioner and the Council of Ministers. With respect to schemes 2, 3 and 4, the procedure is continuous and permanent.

Specific questions for tradable certificates:

Does not apply to Cyprus

Specific questions for feed-in fixed tariffs:

(a) What are the conditions to get a fixed tariff?

The following terms must be met:

- The applicant must be a beneficiary
- Using the special form, interested applicants must submit an application to the Special Fund Committee during the announced period. The application must be accompanied by all necessary supporting documentation as these are defined in the application form.
- For the application to be approved by the Special Fund Committee it must receive at least 50% of the grade for each criterion
- Applicants shall receive final approval from the Committee
- Applicants must sign an agreement with the Management Committee of the Special Fund

Moreover, the project must meet the technical specifications set out in the agreement interested applicants sign with the EAC.

(b) Is there a cap on the total volume of electricity produced per year or of installed capacity that is entitled to the tariff?

Yes, there is a cap.

The caps for total installed capacity are detailed in the response to the following question.

There must be only the following cap for wind farms with a capacity of > 30kW: Where the average electricity produced by one wind farm during a 4-year period is greater than 1750kWh each year, investors will receive the standing rate from EAC ONLY for the additional kWh generated, meaning the kWh above the 1750 kWh.

(c) Is it a technology specific scheme? What are the tariff levels for each?

The following restrictions are included in the Support scheme to Encourage Generation of Electricity by Large-scale Commercial, Wind, Solar Thermal and Photovoltaic Systems Using Biomass (2009-2013) with respect to installed capacity:

- Wind Farms: 165MW total installed capacity by 2013
- Photovoltaic Systems of capacity 21-150kW: 2MW total installed capacity per year (for the years 2009-2013)
- Solar Thermal Systems: 165MW total installed capacity by 2013

The tariff levels of each Plan can be seen in Tables 1-3 in the response to question 4.3(g) – Financial Support

(d) Are there other criteria differentiating tariffs?

The cost, efficiency of each technology and the environmental impact avoidance rate.

(e) For how long is the fixed tariff guaranteed?

The fixed tariff is guaranteed for 15-20 years, according to the plan.

(f) Is there any tariff adjustment foreseen in the scheme?

Support schemes are revised at the end of each year taking into consideration the technological developments, cost differentiations and public response to each technology.

Specific questions on the feed-in premiums:

(a) What are the conditions to get the premium?

Premiums are provided for generation of electricity using biomass and generation of electricity using biogas from Sanitary Landfills.

Specifically, the total sale price of electricity generated suing Biomass and Biogas released from Sanitary Landfills and fed into the transmission grid is EUR 0.1179/•Wh and EUR 0.0974/•Wh respectively for the first 20 years of operation of the system.

The above minimum sale prices, are increased by a Premium = 1.71 eurocent /KWh - electricity in cases where electricity is generated by combined heat/cooling and power stations or where biomass originates from chemical reactions such as is gasification, dry fermentation and if the gas used to generate electricity is processed to a quality equal to natural gas or where electricity is generated by fuel cells, gas turbines, steam turbines, organic Rankine cycle, multiple fuel systems Kalina cycle specifically or Stirling machines.

(b) Is there a cap on the total volume of electricity produced per year or of installed capacity that is entitled to the premium?

At the present stage there is no cap on the total volume of electricity produced per year or of installed capacity that is entitled to the premium.

(c) Is it an alternative to fixed tariff?

As stated in the response to question (a), the premium is additional to the sale price provided above and it is not an alternative.

(d) Is it a technology specific scheme? What are the premium levels for each?

The premium levels for each special technology have been cited in the response to question (a)

(e) Is there a floor and/or a cap for the premium? Please specify.At the present stage there is no floor and/or cap for the premium.

(f) For how long is the premium price guaranteed?

The premium price is guaranteed for the duration of the support provision agreement, which is 15 years for applicants under the Power Generation from Biomass Scheme of 2007 and 20 years for the Support Scheme to Encourage Generation of Electricity Using RES (2009-2013)

(g) Is any tariff adjustment foreseen in the scheme?

At the present stage there is no tariff adjustment foreseen in the scheme.

Specific questions for tendering:

(a) What is the frequency and size of tenders?

(b) Which technologies are specified?

(c) Is it integrated with grid development?

(a-c) The Energy service has forwarded the Council of Ministers a proposal to tender the sale price of electricity generated from solar thermal stations up to 25 • W. According to the proposal, the tender shall be carried out only once and the applicant with the lowest sale price for a station with a total capacity of 25MW will be selected.

This project is integrated with grid development.

4.4. Support schemes to promote the use of energy from renewable sources in heating and cooling applied by the Member State or a group of Member States

Please follow the structure of point 4.3 and apply the questions to the support measures provided for renewable energy use in the heating and cooling sector.

Financial support

(a) What is the name and a short description of the scheme?

There are three types of Schemes with the following categories and subcategories for electricity generation:

A. Support Scheme to Save Energy and to encourage the Use of Renewable Energy Sources for Natural Persons and Organisations not engaged in an economic activity.

This Scheme includes the following categories and subcategories for generation of electricity using RES:

• • :Renewable Energy Sources (RES)

§ • •2 – Solar systems
- Ø • •2.1 Production of domestic hot water from central solar systems
- Ø • •2.2 Production of domestic hot water from central solar systems (of different types) for heating or cooling

§ • •3 – Utilisation of biomass for heating/cooling

§ • •4 – Heat pump with geothermal heat exchanger for private residential heating/cooling

• • :• • – Combined Heat/Cooling and Power (CHP)

B. Support Scheme to Save Energy and to Encourage the Use of Renewable Energy Sources for Natural Persons and Legal Entities as well as agencies of the public sector engaged in an economic activity.

This Scheme includes the following categories and subcategories for generation of electricity using RES:

• • :Renewable Energy Sources (RES)

§ • •2 – Solar systems
- Ø • •2.1 Installation and/or replacement of domestic hot water systems
- Ø • •2.2 Installation and/or replacement of heating/cooling systems (Production of hot water by various types of solar panels for heating/cooling)

§ • •7 – Heat pump with geothermal heat exchanger for heating/cooling
§ • •8 – Utilisation of Biomass
Ø • •8.2 District heating and or cooling
Ø • •8.3 Heating/cooling
Ø • •8.1 Combined Heat/Cooling and Power using biomass

• • :Combined Heat/Cooling and Power (CHP)

With respect to scheme 1, responses to questions 4.4 (b) to (f) apply as the corresponding responses to questions 4.3 (b) to (f).

(g) Does support differ according to technology?

Support differs according to technology.

Differentiation per technology can be seen in the following tables:

TABLE 1: SUPPORT SCHEME ENCOURAGING THE USE OF RENEWABLE ENERGY SOURCES FOR NATURAL PERSONS AND ORGANISATIONS NOT ENGAGED IN AN ECONOMIC ACTIVITY

REF.	INVESTMENT	GRANT/BENEFICIARIES/ PRICE/KILOWATT HOUR SUBSIDY	MAXIMUM GRANT AMOUNT FOR 2010
• • :	**Renewable Energy Sources**		
• • 2	**Solar Systems**		
• • 2.1	Central active domestic hot water systems. (Pertains to a new installation and/or **replacement)**	For school commissions, charity organizations, municipalities and communities and other non profit organizations not engaged in an economic activity will be **45%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is **EUR 25 000**	**-** **EUR 750 000-** **(Applies to all categories • • 2.1,**

TABLE 1: SUPPORT SCHEME ENCOURAGING THE USE OF RENEWABLE ENERGY SOURCES FOR NATURAL PERSONS AND ORGANISATIONS NOT ENGAGED IN AN ECONOMIC ACTIVITY			
• •2.2	Heating and cooling (Pertains to a new installation and/or **replacement)**	For school commissions, charity organizations, municipalities and communities and other non profit organizations and residential units of natural persons not engaged in an economic activity the subsidy will be **55%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is **EUR 60 000** For residential units of natural persons not engaged in an economic activity the subsidy will be **55%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is **EUR 25 000**	**• •2.2 and • •2.1, • •2.2)**
• •2.3	Residential solar systems. (Pertains to the replacement of systems in existing private residential units)	The subsidy will be **EUR 175** for category • B2.3a and **EUR 345** for categories • B2.3b and • •2.3.c per residential unit.	**EUR 300 000-**
• •3	**Utilization of Biomass**		
	Central heating/cooling systems	The subsidy for natural persons, school commissions, charity organizations, municipalities and communities and other non profit organisations not engaged in an economic activity will be **55%** of the eligible budget under the restriction of maximum eligible expenditures.	**- EUR 400 000- (Pertains to all categories • •3, and • •8)**
• •5	**Heat pump with geothermal heat exchanger for heating/cooling**		
• •5.1	**• •4 – Heat pump with geothermal heat exchanger for private residential heating/cooling**	The subsidy will be **55%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is **EUR 20 000**	**EUR 900 000 - (Pertains to all categories • •5, and • •7)**
• •5.2	**Heat pump with geothermal heat exchanger for heating/cooling in non profit organisation, municipalities, communities, churches, monasteries, associations and state services not engaged in an economic activity**	The subsidy will be **40%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is **EUR 100 000**	
• •:	**Cogeneration of Heat and Power**		
• •1	**Cogeneration of electricity – heating/cooling**	For school commissions, charity organizations, municipalities and communities and other non profit organizations not engaged in an economic activity will be **45%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is **EUR 85,500**	Day price: 6.53eurocent/•Wh subsidy = 6.53eurocent-2.93eurocent =3.5eurocent/•Wh ---------- Night price: 5.73eurocent/•Wh subsidy = 5.73eurocent-2.57eurocent =3.16eurocent/•Wh

TABLE 2 **SUPPORT SCHEME ENCOURAGING THE USE OF RENEWABLE ENERGY SOURCES FOR NATURAL PERSONS, LEGAL ENTITIES AND PUBLIC SECTOR AGENCIES ENGAGED IN AN ECONOMIC ACTIVITY**

REF.	INVESTMENT	Grant per Form of Support	
		Regional Support	**Support *de minimis*/ *Special Grant***
• • 2	**Solar Systems (Maximum Grant Amount for 2010 = EUR 750,000 – Pertains to all categories • • 2.1, • • 2.2 and • • 2.1, • • 2.2)**		
• • 2.1	Central active domestic hot water systems. (Pertains to a new installation and/or replacement)	**15% or25% or 30%** of eligible budget, according to the category of undertaking (large, medium, small). The maximum grant amount is **EUR 50 000 per unit**	**30%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is EUR **20 000 per station**
• • 2.2	Solar heating and cooling systems. (Pertains to a new installation and/or replacement)	**15% or 25% or 30%** of eligible budget, according to the category of the undertaking (large, medium small). The maximum grant amount is **EUR 75 000 per unit**	**40%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is **EUR 75 000 per unit**
• • 7	**Heat pump with geothermal heat exchanger for heating/cooling (Maximum Grant Amount for 2010 = EUR 900 000 – Pertains to all categories • • 7 and • • 5)**		
	Heat pump with geothermal heat exchanger for heating/cooling	**15% or 25% or 35%** of eligible budget, according to the category of the undertaking (large, medium small). The maximum grant amount is **EUR 100 000 per unit**	**40%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is **EUR 100 000**
• • 8	**Utilization of Biomass (Maximum Grant Amount for 2010 = EUR 400 000 – Pertains to all categories • • 8 and • • 3)**		
• • 8.2	District heating and or cooling	**15% or 25% or 35%** of eligible budget, according to the category of the undertaking (large, medium, small). The maximum grant amount is	**40%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is
• • 8.3	Heating/cooling		

• • 8.4	Combined Heat/Cooling and Power using biomass	**EUR 300 000 per unit.**	**EUR 200 000 for the de-minimis category**
• • 1	**Combined heat/cooling and power**		
	Combined heat/cooling and power	**15% or 25% or 30%** of eligible budget, according to the category of the undertaking (large, medium small). The maximum grant amount is **EUR 100 000 per unit.**	**30%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is **EUR 100 000 per unit**

With respect to scheme 1, responses to questions 4.4 (h) to (l) apply as the corresponding responses to questions 4.3 (l) to (l).

(l) Are there maximum or minimum sizes of system which are eligible?

There are no maximum or minimum sizes for eligible systems in the schemes with respect to heating and cooling using RES.

With respect to scheme 1, responses to questions 4.4 (n) to (o) apply as the corresponding responses to questions 4.3 (n) to (o).

Responses to specific questions for financial support of investment, feed-in fixed tariffs and feed-in premiums apply as the responses to the corresponding questions in paragraph 4.

Please address the following additional points:

(a) How are the support schemes for electricity from renewable energy sources adapted to encourage the use of CHP from renewable energy sources?

In compliance with Directive 2004/8/•C, Cyprus has drafted a national strategy to promote and develop high efficiency cogeneration. According to the published national potential for combined heat and power assessment report submitted to the Commission the financial potential of high efficiency cogeneration is estimated at 225 MWe by 2020 (159 MWe industry,42 MWe tertiary sector, 24 MWe agriculture/ biogas). The support measures for high efficiency cogeneration include priority access to the grid during allocation of load, tax free cogeneration fuel, capital grants for small-scale systems, subsidised cogeneration rate for electricity fed into the grid. Specifically in the agricultural sector where there is a cogeneration potential using RES (CHP installations in animal farms) the scheme is particularly favourable taking into account the provisions of the Directive on cogeneration for small-scale systems.

Cyprus has adopted legislation encouraging the use of RES in CHP facilities since under the efficiency criteria of the Directive we believe that all heat used in the biogas production process is useful while the primary energy saving criterion for high efficiency is set at the lowest possible PES > 0. The result is that biogas/CHP installations receive additional financial support (bonus) due to the cogeneration part. Currently there are 9 biogas/cogeneration facilities in operation while there is strong and on-going interest for new investments.

The support schemes encouraging CHP are detailed under Tables 1 and 2 of the response to question 4.4 (g)

(b) What support schemes are in place to encourage the use of district heating and cooling using renewable energy sources?

There are no district heating or cooling systems in Cyprus at present. However, the national potential for combined heat and power assessment prepared in compliance with Directive 2004/8/EC, has estimated a 60MW thermal load district heating potential close to power plants. Power generation in central plants (EAC is the national generator) uses petrol and RES fuels are not used.

The cogeneration potential assessment for Cyprus is published at the Commission website and also at the website of the Ministry of Commerce, Industry and Tourism (www.mcit.gov.cy)

(c) What support schemes are in place to encourage the use of small-scale heating and cooling from renewable energy sources?

The support schemes in place to encourage the use of small-scale heating and cooling from renewable energy sources are described in the response to question 4.4 (a) Table 1.

(d) What support schemes are in place to encourage the use of heating and cooling from renewable energy sources in industrial applications?

The support schemes in place to encourage the use of heating and cooling from renewable energy sources in industrial applications are described in the response to question 4.4 (a) Table 2.

4.5. Support schemes to promote the use of energy from renewable sources in transport applied by the Member State or a group of Member States

Please follow the structure of point 4.3 and apply the questions the support measures provided for renewable energy use in the transport sector. Please make distinctions according to transport modes (such as road transport, non-road land transport).

Financial support

(a) What is the name and a short description of the scheme?

1. Support schemes for financial incentives in the form of state grants and/or subsidies in the sector to encourage the use of renewable energy sources and energy saving.

Scheme 1 only includes a capital grant on the eligible cost of the investment. The beneficiaries of scheme 1 are the same as those described in part 4.3. – Financial Support of Investments question (b). The application submittal period is the same as the support schemes described in part 4.3 - Financial Support of Investments question (c).

There are three types of Schemes with the following categories and subcategories for transport:

A. Support Scheme to Save Energy and to encourage the Use of Renewable Energy Sources for Natural Persons and Organisations not engaged in an economic activity.

This Scheme includes the following categories and subcategories for transport using RES:

- § • •5: Purchase of a new Hybrid Vehicle
- § • •6: Purchase of a new Fuel Flexible Vehicle - FFV/Dual Propulsion Vehicle
- § • •7: Purchase of a new Electric Vehicle
- § • •8: Purchase of a new low carbon emission vehicle (• 120 g CO2/km)

B. Support Scheme to Save Energy and to encourage the Use of Renewable Energy Sources for Natural Persons and Legal Entities as well as agencies of the public sector engaged in an economic activity.

This Scheme includes the following categories and subcategories for transport using RES:

- • • 2.1 – Purchase of a new Hybrid Vehicle
- • • 2.2 – Purchase of a new Fuel Flexible Vehicle- FFV/ Dual Propulsion Vehicle)
- • • 2.3 – Purchase of a new Electric Vehicle
- • • 2.4 –Purchase of a new low carbon emission vehicle (• 120 g CO2/km)
- • • 8 – Utilisation of Biomass
  - v • • 8.1 Biogas production for transport

2. Vehicle Scrappage and Replacement Scheme

Scheme 2 includes both subsidies, and tax decreases and reduced circulation fees.
This scheme aims to reduce the final energy consumption in transport. The scrappage scheme pertains to the removal of polluting and energy-suing vehicles without catalytic converters which reduce air pollution.
The scheme is comprised of 4 subsidy categories:

• **Subsidy Category • (EUR 257)**
  – Scrappage of vehicle with active registration. Purchase of a new vehicle is not required.

• **Subsidy Category • (EUR 684)**
  – Scrappage of Vehicle with active registration and circulation license within the last 12 months before the scheme start date. Purchase of a new vehicle is not required.

• **Subsidy Category C(i) (EUR 1283)**
  – Scrappage of Vehicle with active registration and circulation license within the last 12 months before the scheme start date.
  – Purchase of a new vehicle with fuel consumption of 5-7 litres / 100 kilometres or motorcycle is required.

• **Subsidy Category C(ii) (EUR 1710)**
  – Scrappage of Vehicle with active registration and circulation license within the last 12 months before the scheme start date.
  – Purchase of a new vehicle with fuel consumption of 5 litres / 100 kilometres maximum is required.

Additionally, according to the Law of 1972 on Motorised Vehicles and Vehicular Traffic, there are discounts in the registration tax and circulation fees for vehicles other that gas or petrol driven vehicles and dual propulsion vehicles.

(b-c)

Both schemes are voluntary.

The implementing agency for scheme (1) is the Special Fund and the monitoring authority is the Minister for Commerce, Industry and Tourism. Specifically, the Minister monitors the establishment of the Management Committee, management and administration of the Fund and the activities and persons receiving support or financing.

The implementing authority for scheme (2) is the Road Transport Department and the monitoring authority is the Minister for Communications and Works.

(d - f), (h - l) and (n)

The corresponding responses under paragraph 4.3.

(m)
For Scheme 1 – Plan • (Table 2) there is a restriction on the total number of vehicles an enterprise may purchase to enjoy financial support (maximum number: 7 vehicles per enterprise).

(o)

There are no regional or local schemes in transport.

Please address the following additional points:

(a) What are the concrete obligations/targets per year (per fuel or technology)?

The Decree of 2008 on the Biogas Content of Conventional Fuel used in Transport provides that suppliers placing conventional fuel in the market are obliged to mix in biofuels so that the average annual energy content of biogas in conventional fuel amounts to at least 2% of the total energy content of conventional fuel placed in the market.

(b) Is there differentiation of the support according to fuel types or technologies? Is there any specific support to biofuels which meet the criteria of Article 21(2) of the Directive?

In the present stage there is no differentiation of support according to fuel types or special support for biogas which meet the criteria of Article 21(2) of the Directive. When the new national legislation enters into force, the Support Schemes will be modified in order to provide financial support only to the production of biofuels which meet the criteria of Article 21(2) of the Directive, the rate of which may be added to the national targets of Cyprus.

Support differs according to technology as can be seen in the following Tables

TABLE 1 **SUPPORT SCHEME ENCOURAGING THE USE OF RENEWABLE ENERGY SOURCES FOR NATURAL PERSONS AND ORGANISATIONS NOT ENGAGED IN AN ECONOMIC ACTIVITY**

REF.	INVESTMENT	SUBSIDY/BENEFICIARIES	MAXIMUM SUBSIDY AMOUNT FOR 2010
• **A5**	Purchase of a new Hybrid Vehicle	The maximum subsidy amount for this category is set at **EUR 1 200**.	**EUR 800 000 -** **(Pertains to all categories • • 5, • • 6, • • 7, • • 8 and • • 2.1, • • 2.2, • • 2.3, • • 2.4)**
• **A6**	Purchase of a new Fuel Flexible Vehicle- FFV/ Dual Propulsion Vehicle	The maximum subsidy amount for this category is set at **EUR 1 200**.	
• **A7**	Purchase of a new Electric Vehicle	The maximum subsidy amount for this category is set at **EUR 700**.	
• **A8**	Purchase of a new low carbon emission vehicle (• 120 g CO2/km)	The maximum subsidy amount for this category is set at **EUR 700**.	

TABLE 2	**SUPPORT SCHEME ENCOURAGING THE USE OF RENEWABLE ENERGY SOURCES FOR NATURAL PERSONS, LEGAL ENTITIES AND PUBLIC SECTOR AGENCIES ENGAGED IN AN ECONOMIC ACTIVITY**		
REF.	**INVESTMENT**	**Subsidy per Form of Support**	
		Regional Support	**Support *de minimis/ Special Subsidy***
• • 2	**Maximum Subsidy Amount for 2010 = EUR 800 000 – Pertains to all categories • • 5, • • 6, • • 7, • • 8 and • • 2.1, • • 2.2, • • 2.3, • • 2.4)**		
• • 2.1	Purchase of a new Hybrid Vehicle	-	**EUR 1 200 direct subsidy** for purchase of each vehicle. The maximum subsidy amount is EUR 8 400
• • 2.2	Purchase of a new Fuel Flexible Vehicle- FFV/ Dual Propulsion Vehicle	-	**EUR 1 200 direct subsidy** for purchase of each vehicle. The maximum subsidy amount is EUR 8 400
• • 2.3	Purchase of a new Electric Vehicle	-	**EUR 700 direct subsidy** for purchase of each vehicle. The maximum subsidy amount is EUR 4 900*
• • 2.4	Purchase of a new low carbon emission vehicle (• 120 g CO2/km)	-	**EUR 700 direct subsidy** for purchase of each vehicle. The maximum subsidy amount is EUR 4 900*
• • 8	**Utilisation of Biomass (Maximum Grant Amount for 2010 = EUR 400 000 – Pertains to all categories • • 8 and • • 3)**		
	• • 8.1 Biogas production for transport	**15% or 25% or 35%** of eligible budget, according to the category of the undertaking (large, medium, small). The maximum grant amount is EUR 300 000 per unit.	**40%** of the eligible budget under the restriction of maximum eligible expenditures. The maximum grant amount is: **EUR 200 000 for the de-minimis category**

* there is a limit on the purchase of up to 7 vehicles per enterprise, public service, etc.

4.6. Specific measures for the promotion of the use of energy from biomass

Being an island / Mediterranean country, Cyprus does not have the strong potential that would allow a decisive biomass contribution in its energy system as is the case with central and northern European countries. Forest biomass is completely absent, while the anticipated development in the agricultural sector is not able to support exploitation of significant quantities of its products or by products for energy mainly due to island's water resource problems, the shortage and small size of agricultural land and the fact that the majority of agricultural products and by-products are used in food and animal feed.

Significant opportunities for the development of biomass technologies depend mainly on the environmentally correct management of sludge and waste (animal farming, industrial and urban liquid and solid waste, olive oil mill residues, etc.). Also significant, considering the size of the island, are opportunities for exploitation of residues of conventional Mediterranean farm products such as olive oil and wine (olive residues, grapevine clippings, etc.).

The existing legal framework and the support measures support the overall development of domestic biomass sources and are beginning to show results (mainly utilisation of biomass in small installations where there is a noteworthy investment interest displayed already).

In the current phase, the use of various types of biomass is mainly limited to burning solid biomass for heating purposes (olive residues, firewood, wood industry residues, etc.) and use of biogas for energy in animal farms and one urban biological waste treatment station for generation of electricity.

4.6.1. Biomass supply: both domestic and trade

Under this point Member States should assess the supply of domestically available biomass and the need for imports.

Table 7: Biomass supply in 2006

Sector of origin		Amount of domestic resource (tn)	Imported		Exported	Net amount	Primary energy production (ktoe)
			EU	Non -EU	EU/non-EU		
A) Biomass from forestry:	*Of which:*						
	1. direct supply of wood biomass from forests and other wooded land for energy generation	5432	383*		-	5815	2.1
	Optional — if information is available you can further detail the amount of feedstock belonging to this category: a) fellings b) residues from fellings (tops, branches, bark, stumps) c) landscape management residues (woody biomass from parks, gardens, tree rows, bushes) d) other (please define)	a) 4532 b) 900	383* -		- -	4915 900	1.8 0.3
	2. indirect supply of wood biomass for energy generation	10915	8225*		27	19113	6.9
	Optional — if information is available you can further detail: a) residues from sawmilling, woodworking, furniture industry (bark, sawdust) b) by products of the pulp and paper industry (black liquor, tall oil) c) processed wood-fuel d) post consumer recycled wood (recycled wood for energy generation, household waste wood) e) other (please define)	c) 10915	8225*		27	19113	6.9
* There is no data as to whether these quantities were EU or non-EU imports							
B) Biomass	*Of which:*						

from agriculture and fisheries:	**1. agricultural crops and fishery products directly provided for energy generation**	400	-	-	-	400	0.1
	Optional — if information is available you can further detail: a) arable crops (cereals, oilseeds, sugar beet, silage maize) b) plantations c) short rotation trees d) other energy crops (grasses) f) algae g) other (please define)	a) 400	-	-	-	400	0.1
	2. Agricultural by-products/processed residues and fishery by-products for energy generation	2441	-	-	-	2441	0.903
	Optional — if information is available you can further detail: a) straw b) manure c) animal fat d) meat and bone meal e) cake by-products (incl. oil seed and olive oil cake for energy) f) fruit for biomass (including shell, kernel) g) fishery by-product h) clippings from vines, olives, fruit trees i) other (Biogas from animal farm waste)	d) 2441	-	-	-	2441	0.9 0.03
C) Biomass from waste:	*Of which:*	1245	-	-	-	1245	0.5
	1. Biodegradable fraction of municipal solid waste including biowaste (biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises, and comparable waste from food processing plants) and landfill gas	-	-	-	-	-	-

	2. Biodegradable fraction of industrial waste (including paper, cardboard, pallets)	-	-	-	-	-	-
	3. Sewage sludge	1245	-	-	-	1245	0.5

Please explain the conversion factor/calculation methodology used above for the conversion of the amount of available resources to primary energy.

The following factors/calculation methodology are used for the conversion of available resources to primary energy:

	Calorific value kJ/kg	**Tonne to toe conversion factor**
fellings	15000	0.36
residues from fellings (tops, branches, bark, stumps)	15000	0.36
processed wood-fuel	15000	0.36
arable crops (cereals, oilseeds, sugar beet, silage maize)	15000	0.36
meat and bone meal	16000	0.38
Sewage sludge	18000	0.43

Please specify on what basis the biodegradable fraction of municipal solid waste and of industrial waste was calculated.

Does not apply to Cyprus since there is no energy generated of using solid urban waste and industrial waste at the current stage.

Please use Table 7a to give an estimated contribution of biomass energy use in 2015 and 2020. (Following the categorisation used in Table 7.)

Table 7a: Estimated biomass domestic supply in 2015 and 2020

Sector of origin		2015		2020	
		Expected amount of domestic resource (tn)	Primary energy production (ktoe)	Expected amount of domestic resource	Primary energy production (ktoe)
A) Biomass from forestry:	**1. direct supply of wood biomass from forests and other wooded land for energy generation**	4500 – 5500	1.6 – 2.0	4500 – 5500	1.6 – 2.0
	2. indirect supply of wood biomass for energy generation	8000 - 10000	2.9 – 3 .6	8000 - 10000	2.9 – 3.6
B) Biomass from agriculture and fisheries:	**1. agricultural crops and fishery products directly provided for energy generation**	500	0.1	500	0.1
	2. Agricultural by-products/processed residues and fishery by-products for energy generation	2500	1.0 4.5*	5000	1.9 6.0*
C) Biomass from waste:	**1. Biodegradable fraction of municipal solid waste including biowaste** (biodegradable garden and park waste, food and kitchen waste from households, restaurants, caterers and retail premises, and comparable waste from food processing plants) and landfill gas	7000 - 9000	3.1 – 4.0	10000 - 15000	4.5 – 6.7
	2. Biodegradable fraction of industrial waste (including paper, cardboard, pallets)	800	0.5	1400	0.8
	3. Sewage sludge	7000 - 9000	2.2 – 2.8	15000-18000	4.6 – 5.6

* Biogas from animal farm waste

What is the estimated role of imported biomass up to 2020? Please specify the quantities expected (ktoe) and indicate possible import countries.

To satisfy its energy requirements, the local cement industry is expected to import in 2020 2.52ktoe from the biodegradable fraction of industrial waste, 6.8 – 7.7ktoe from imported sludge and 11.02 ktoe from imported RDF (calculating that the biodegradable fraction will be 49%)

In addition to the information provided above, could you please describe the current situation of agricultural land used for dedicated energy production as follows:

Table 8: Current agricultural land use for production of crops dedicated to energy in 2006

Agricultural land use for production of dedicated energy crops	Surface (ha)
1) Land used for short rotation trees (willows, poplars)	*
2) Land used for other energy crops such as grasses (reed canary grass, switch grass, Miscanthus), sorghum	*

***** Agricultural land was not used for dedicated energy production in 2006.

4.6.2. Measures to increase biomass availability, taking into account other biomass users (agriculture and forest-based sectors)

– **Mobilisation of new biomass sources**:

(a) Please specify how much land is degraded.

The estimated quantity of degraded land is

(b) Please specify how much unused arable land there is.

The estimated quantity of unused arable land in 2009 was 5474.6 decares. This quantity varies according to seasonal crops.

(c) Are there any measures planned to encourage unused arable land, degraded land, etc. to be used for energy purposes?

The agricultural engineering research carried out by the Agricultural Research Institute during the last 2 years focuses on the energy plants sector and on studying the biomass exploitation potential for the production of biofuels (biodiesel, bioethanol, biogas and solid fuel) and energy under the conditions in Cyprus. The main goal of the research is to select the suitable energy plants which can produce sugars, starch or woody biomass with the minimum irrigation requirements since the main problem that Cyprus is faced with is the shortage of irrigation water and the shortage and

small size of agricultural land. The plants under examination do not affect the human or animal food chain. The main plant species are:

- Acacia saligna (golden wreath wattle) and Leucaena leucocephala (Lam.) (white leadtree): for the production of biomass for solid fuel.

- Locust tree, Ipomoea batatas (sweet potato), Onopordum cyprium (donkey thistle) and Asphodelus aestivus (asphodel): for production of bioethanol.

- Sinapis alba (white mustard), Silybum marianum (milk thistle), Cynara cardunculus (cardoon/artichoke thistle) and Ricinus communis (castor oil plant): for the production of biodiesel.

The above plants could be cultivated on a small-scale in unused arable or degraded land. Upon completion of this research programme funded by the Research Promotion Foundation under the Programme "Research and Businesses" of DESMI 2008 aiming to develop an integrated database to contribute to the policy for the promotion of energy crops and biofuels, the land surfaces that could be potentially used for energy crops will be identified and located. There will also be a safer assessment of the available quantity of biomass that can be used as solid fuel.

(d) Is energy use of certain already available primary material (such as animal manure) planned?

There are financial support programmes in place since 2003 on the energy use of animal farm waste. The first Scheme was implemented by the Ministry of Agriculture, Natural Resources and Environment and aimed to establish support encouraging investments for the construction of infrastructure, installation of the relative equipment and rational management of pigwaste / waste from piggeries, dairy farms, poultry abattoirs and manure so as to avoid the risk of environmental pollution and pollution of water resources in particular.

Upon its establishment, the Special Fund implemented the First Grant Schemes in 2004. This Scheme covered a capital grant on the total cost of the investment for energy utilisation of animal farm waste. The first Scheme encouraging generation of electricity using biomass was implemented in 2007; the scheme subsidises the energy generated with the use of animal farm waste that is fed into the grid. In the Support Schemes for 2009–2013, there is a subsidy for the generated kWh, while the plan for a 40% subsidy of the eligible cost is preserved.

Under the current stage, there are 9 stations with a total capacity range at 6MW generating electricity and thermal energy using biogas produced through anaerobic stabilization of animal farm waste, abattoir residues and urban waste collected at the biological stations of Sewage Boards. Two more stations are expected to operate within 2010 with a total capacity of 1.4• MW.

(e) Is there any specific policy promoting the production and use of biogas? What type of uses are promoted (local, district heating, biogas grid, natural gas grid integration)?

The current policy includes production and use of biogas from animal farm waste, urban waste and landfills.

In the current stage, biogas is used in the local production of electricity and heating.

(f) What measures are planned to improve forest management techniques in order to maximise the extraction of biomass from the forest in a sustainable way?;[1]: How will forest management be improved in order to increase future growth? What measures are planned to maximise the extraction of existing biomass that can already be put into practice?

In the current stage there are no plans to maximize the extraction of existing biomass for energy purposes since as mentioned above the forest biomass in Cyprus is minimal.

The Forest Department is the competent authority monitoring the National Forest Programme and implementing and monitoring the criteria and indices for the sustainable management of Cyprus forests.

– **Impact on other sectors:**

(a) How will the impact of energy use of biomass on other sectors based on agriculture and forestry be monitored? What are these impacts? (If possible, please provide information also on quantitative effects.) Is the monitoring of these impacts planned in the future?

[1] The recommendations can be found in the report issued by the ad hoc working group II of the Standing Forest Committee in July 2008 entitled "Mobilisation and efficient use of wood and wood residues for energy generation". The report may be downloaded from: http://ec.europa.eu/agriculture/fore/publi/sfc_wgii_final_report_072008_en.pdf

As mentioned above, the development of the agricultural sector is not able to support exploitation of significant quantities of its products or by-products for energy mainly due to the island's water resource problems, the shortage and small size of agricultural land and the fact that the majority of agricultural products and by-products are used in food and animal feed.

Due to the policy on the use of animal farm, urban and industrial waste and plants that do not affect the human or animal food chain with minimal irrigation requirements as raw material for the generation of electricity using biomass, there is no serious impact anticipated on other sectors based on agriculture and forestry due to the energy requirements of the country.

(b) What kind of development is expected in other sectors based on agriculture and forestry that could have an impact on the energy use? (E.g. could improved efficiency/productivity increase or decrease the amount of by-products available for energy use?)

In the current stage there are no significant developments expected that are based on agriculture and forestry.

4.7. Planned use of statistical transfers between Member States and planned participation in joint projects with other Member States and third countries

– *Under this subchapter the expected use of cooperation mechanisms between Member States and Member States and third countries has to be described. This information should draw on that provided in the forecast document referred to in Article 4(3) of the Directive 2009/28/EC.*

The Republic of Cyprus aims to achieve its binding targets on renewable energy sources using only domestic production and is not expected to use the cooperation mechanisms.

However, it does not exclude the possibility to participate in joint projects with other Member States and third countries.

4.7.1. Procedural aspects

(a) Describe the national procedures (step by step) established or to be established, for arranging a statistical transfer or joint project (including responsible bodies and contact points).

(b) Describe the means by which private entities can propose and take part in joint projects either with Member States or third countries.

(c) Give the criteria for determining when statistical transfers or joint projects shall be used.

(d) What is going to be the mechanism to involve other interested Member States in a joint project?

(a) - (d)

In the current stage there are no established national procedures arranging the statistical transfer or joint project. The national procedures with respect to cooperation mechanisms will be determined in the new national legislation prepared in order to transpose the provisions of Directive 2009/28/• C to the national legislation.

This harmonised legislation will set out the means by which private agencies may propose joint projects and take part in these projects, the criteria determining when statistical transfers or joint projects will be used and the mechanisms to involve other interested Member States in a joint project.

(e) Are you willing to participate in joint projects in other Member States? How much installed capacity/electricity or heat produced per year are you planning to support? How do you plan to provide support schemes for such projects?

As mentioned under paragraph 4.7 the Republic of Cyprus has a positive outlook towards the possibility of participation in joint projects implemented either in Cyprus or in other Member States.

However, in the present state there are no specific framework and support schemes planned for projects of this type because we expect to achieve our targets with domestic sources.

4.7.2. Estimated excess production of renewable energy compared to the indicative trajectory which could be transferred to other Member States

– *Please use Table 9, filling in the required information.*

According to Table 9, some excess production of renewable energy compared to the indicative trajectory is expected in 2020, but not in comparison with the final production of renewable energy.

4.7.3. Estimated potential for joint projects

(a) In which sectors can you offer renewable energy use development in your territory for the purpose of joint projects?

(b) Has the technology to be developed been specified? How much installed capacity/electricity or heat produced per year?

(a) -(b)

As mentioned under paragraph 4.7.1(e) there is no support scheme planned for jointed projects determining the sectors and technologies to be developed.

(c) How will sites for joint projects be identified? (For example, can local and regional authorities or promoters recommend sites? Or can any project participate regardless its location?)

The determination of sites for joint projects must be consistent with the Spatial Planning and legislation governing all other projects using renewable energy sources. The potential sites proposed by builders will be evaluated by the competent authorities in the scope of existing approval and licensing criteria of RES infrastructures.

(d) Are you aware of the potential for joint projects in other Member States or in third countries? (In which sector? How much capacity? What is the planned support? For which technologies?)

Cyprus is not yet involved in any discussions / actions regarding the implementation potential for joint projects.

(e) Do you have any preference to support certain technologies? If so, which?

With respect to joint projects – if these will be realised in Cyprus – the preferred technologies are those relating to collective solar thermal systems or floating offshore wind farms.

4.7.4. Estimated demand for renewable energy to be satisfied by means other than domestic production

Please use Table 9, filling in the required information.

Table 9: Estimated excess and/or deficit production of renewable energy compared to the indicative trajectory which could be transferred to/from other Member States in Cyprus (ktoe)

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Estimated excess in forecast document	-	-	-	-	-	-	-	-	-	-	-
Estimated excess in NREAP	**36**	**33**	**39**	**34**	**46**	**30**	**42**	**57**	**34**	**21**	**0**
Estimated deficit in forecast document	-	-	-	-	-	-	-	-	-	-	-
Estimated deficit in NREAP	-	-	-	-	-	-	-	-	-	-	-

5. Assessments

5.1. The total contribution expected of each renewable energy technology to meet the binding targets and the indicative interim trajectory for the shares of energy from renewable sources in electricity, heating and cooling and transport

Table 10.a: Estimation of total contribution (installed capacity, gross electricity generation) expected from each renewable energy technology in Cyprus to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in electricity 2010-2014

	2005		2010		2011		2012		2013		2014	
	MW	***GWh***	MW	GWh	MW	GWh	MW	GWh	MW	GWh	MW	GWh
Hydro:	-	-	-	-	-	-	-	-	-	-	-	-
<1MW	-	-	-	-	-	-	-	-	-	-	-	-
1MW–10 MW	-	-	-	-	-	-	-	-	-	-	-	-
>10MW	-	-	-	-	-	-	-	-	-	-	-	-
Of which pumping	-	-	-	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
Solar::												
Photovoltaic	0.16	0.07	6	6.46	8	13	12	19	17	27	33	53
Concentrated solar power	0	0	0	0	0	0	0	0	0	0	50	149
Tide, wave, ocean	-	-	-	-	-	-	-	-	-	-	-	-
Wind:												
Onshore	0	0	82	31.4	114	189	114	189	165	275	165	275
Offshore	-	-	-	-	-	-	-	-	-	-	-	-
Biomass:												

Solid	-	-	-	-	-	-	-	-	-	-	-	-
Biogas	0	0	6	30	6	50	6	50	8	67	8	67
Biofuels[2]	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	0,16	0,07	94	67,86	128	252	132	258	190	369	256	544
Of which in CHP	-	-	-	-	-	-	-	-	-	-	-	-

[2] Please only take into account those that meet the sustainability criteria. See Article 5(1), last subparagraph of Directive 2009/28/• C.

Table 10.b: Estimation of total contribution (installed capacity, gross electricity generation) expected from each renewable energy technology in Cyprus to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in electricity 2015-2020

	2015		2016		2017		2018		2019		2020	
	MW	GWh	MW	GWh	MW	GWh	MW	GWh	MW	GWh	MW	GWh
Hydro:	-	-	-	-	-	-	-	-	-	-	-	-
<1MW	-	-	-	-	-	-	-	-	-	-	-	-
1MW-10 MW	-	-	-	-	-	-	-	-	-	-	-	-
>10MW	-	-	-	-	-	-	-	-	-	-	-	-
Of which pumping	-	-	-	-	-	-	-	-	-	-	-	-
Geothermal	-	-	-	-	-	-	-	-	-	-	-	-
Solar:												
Photovoltaic	37	59	63	102	75	121	125	201	145	234	192	309
Concentrated solar power	50	149	50	149	75	223	75	223	75	223	75	224
Tide, wave, ocean	-	-	-	-	-	-	-	-	-	-	-	-
Wind:												
Onshore	180	300	180	300	210	350	210	350	260	433	300	499
Offshore	-	-	-	-	-	-	-	-	-	-	-	-
Biomass												

solid	-	-	-	-	-	-	-	-	-	-	-	-
biogas	10	84	10	84	15	126	15	126	17	143	17	143
Biofuels[3]	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	277	592	303	635	375	820	425	900	497	1033	584	1175
Of which in CHP	-	-	-	-	-	-	-	-	-	-	-	-

[3] See footnote 24.

Table 11: Estimation of total contribution (installed capacity, gross electricity generation) expected from each renewable energy technology in Cyprus to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in electricity 2010-2020 (ktoe)

	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Geothermal (excluding low temperature geothermal heat in heat pump applications)	-	-	-	-	-	-	-	-	-	-	-	-
Solar	41.27	59.02	61.50	64.59	68.15	71.67	75.14	78.43	81.63	84.71	87.66	90.47
Biomass:												
Solid	4.2	18.30	19.24	20.36	21.63	22.92	24.20	25.45	26.67	27.87	29.03	30.16
Biogas	-	-	-	-	-	-	-	-	-	-	-	-
Biofuels	-	-	-	-	-	-	-	-	-	-	-	-
Renewable energy from heat pumps: ***- of which aerothermal*** ***- of which geothermal*** ***- of which hydrothermal***	0	0.34	0.58	0.82	1.08	1.34	1.61	1.88	2.16	2.43	2.70	2.97
TOTAL	45,47	77.66	81.32	85.77	90.86	95.93	100.95	105.76	110.46	115.01	119.39	123.60
Of which in DH	-	-	-	-	-	-	-	-	-	-	-	-
Of which biomass in households	1,77	6.96	7.35	7.82	8.36	8.90	9.43	9.94	10.45	10.94	11.41	11.87

Table 12: Estimation of total contribution (installed capacity, gross electricity generation) expected from each renewable energy technology in Cyprus to meet the binding 2020 targets and the indicative interim trajectory for the shares of energy from renewable resources in electricity 2010-2020 (ktoe)

	2005	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Bioehtanol/bio-ETBE	**0**	**0**	**0**	**0**	**0**	**1.3**	**2.6**	**5.2**	**6.6**	**8.8**	**11.7**	**14.7**
Of which Biofules Article 21(2)	0	0	0	0	0	0	0	2.6	3.3	4.8	11.7	14.7
Of which imported	0	0	0	0	0	1.3	2.6	5.2	6.6	8.8	11.7	14.7
Biodiesel	**0**	**15.7**	**16.8**	**18.1**	**19.5**	**19.6**	**19.8**	**20.2**	**21.9**	**22.8**	**23.1**	**23.2**
Of which biofuels Article 21(2)	0	0.3	0.3	0.4	0.4	1.3	1.5	6.7	13.9	20.2	21.1	23.1
Of which imported	0	9.4	9.5	10.2	11.5	11.4	11.4	14.0	18.5	21.4	22.6	22.6
Hydrogen from renewables	0	0	0	0	0	0	0	0	0	0	0	0
Renewable electricity	**0**	**0**	**0.05**	**0.10**	**0.16**	**0.21**	**0.27**	**0.33**	**0.38**	**0.44**	**0.50**	**0.56**
Of which road transport	0	0	0.05	0.10	0.16	0.21	0.27	0.33	0.38	0.44	0.50	0.56
Of which non-road transport	0	0	0	0	0	0	0	0	0	0	0	0
Others (as biogas, vegetable oils, etc.) – please specify	0	0	0	0	0	0	0	0	0	0	0	0
Of which biofuels Article 21(2)	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	**15.7**	**16.8**	**18.2**	**19.7**	**21.1**	**22.7**	**25.7**	**28.9**	**32.1**	**35.3**	**38.4**

5.2. Total contribution expected from energy efficiency and energy saving measures to meet the binding 2020 targets and indicative interim trajectory for the shares of energy from renewable sources in electricity, heating and cooling and transport

The answer to this requirement should be included in Table 1 under chapter 2.

Indicative interim trajectory for the share of energy from renewable sources in electricity, heating and cooling and transport

	2011 - 2012	**2013 - 2014**	**2015 - 2016**	**2017 - 2018**	**2020**
RES – H&C (%)	17.4	18.9	20.4	21.7	23.5
RES – E (%)	4.4	6.7	8.9	11.6	16.0
RES – T(%)	2.4	2.9	3.3	4.0	4.9

5.3. Impact assessment (Optional)

Table 13: Estimated costs and benefits of the renewable energy policy support measures

Measure	Expected renewable energy use (ktoe)	Expected cost (in EUR) – indicate time frame	Expected GHG reduction by gas (t/year)	Expected job creation

5.4. Preparation of the national renewable energy action plan and follow-up of its application

(a) How were regional and/or local authorities and/or cities involved in the preparation of this Action Plan? Were other stakeholders involved?

The participation of all involved authorities was deemed necessary in the preparation of the action plan. For this reason a questionnaire for collection of data, views and proposals was communicated to the Union of Cyprus Municipalities, the Cyprus Employers and Industrialists Federation and the Cyprus Chamber of Commerce and Industry.

The response from the members of the agencies above was great and their contribution was significant. All views and proposals were taken into consideration in the preparation of the national action plan.

(b) Are there plans to develop regional/local renewable energy strategies? If so, could you please explain? In case relevant competences are delegated to regional/local levels, what mechanism will ensure national target compliance?

Under their own initiative, some of the regional and local authorities participate in the "Covenant of Mayors" which is supported by the European Commission and aims to create a permanent cooperation network among European Municipalities against Climate Change. The Municipalities of Cyprus that participate in the "Covenant of Mayors" and are committed to reduce the CO2 emissions in their territory by at least 20% by 2020 through promotion of renewable energy sources, energy saving and viable means of transportation are:

The Municipalities of Latsia, Agios Athanasios, Strovolos, Paralimni, Larnaca and Lefkara.

In the scope of this Covenant, Municipalities must prepare a local Action Plan which shall include share rate of renewable energy sources in the implementation of the target to reduce emissions.

The above share is NOT calculated in the achievement of the national target of Cyprus.

(c) Please explain the public consultation carried out for the preparation of this Action Plan.

A draft of the action plan was communicated to all concerned agencies during the first stage of the public consultation on the preparation of the national action plan, for their views and comments; the draft was communicated to the Ministry of Interior, Economy, Agriculture Natural Resources and Environment, Communications and Works, the Planning Bureau, the Cyprus Energy Regulatory Authority, the Electricity

Authority of Cyprus, the Transmission System Operator, the Scientific - Technical Chamber of Cyprus, the University of Cyprus, the Cyprus University of Technology, etc.

Additionally, as mentioned in the response to question 5.4.(a), a questionnaire for collection of data, views and proposals was communicated to the Union of Cyprus Municipalities, the Cyprus Employers and Industrialists Federation and the Cyprus Chamber of Commerce and Industry and other academic institutions.

Then, meetings were held between all competent authorities associated with the preparation of the Action Plan as mentioned above.

Lastly, the Action Plan was forwarded to the Council of Ministers for approval.

(d) Please indicate your national contact point/the national authority or body responsible for the follow-up of the Renewable Energy Action Plan?

The national authority responsible to monitor the action plan on renewable energy is the Energy Service of the Ministry of Commerce, Industry and Tourism.

(e) Do you have a monitoring system, including indicators for individual measures and instruments, to follow-up the implementation of the Renewable Energy Action Plan? If so, could you please give more details on it?

There is no monitoring system in place at the present stage.