REPUBLIC OF BULGARIA

MINISTRY OF ECONOMY, ENERGY AND TOURISM

REPORT ON THE ACHIEVEMENT OF THE NATIONAL INDICATIVE TARGETS FOR CONSUMPTION OF ELECTRICITY PRODUCED FROM RENEWABLE ENERGY SOURCES IN 2010

March 2011, Sofia

LIST OF ABBREVIATIONS

RES	Renewable energy sources
HPP	Hydropower plant
RS	Renewable sources
WPP	Wind power plant
SG	State Gazette
SEWRC	State Energy and Water Regulatory Commission
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
Commission	European Commission
EC	European Community
EU	European Union
PP	Power plant
ELENA	European Local Energy Assistance
BEERECL	Bulgarian Energy Efficiency and Renewable Energy Credit Line
SHPP	Small hydropower plant
MEET	Ministry of Economy, Energy and Tourism
MoEW	Ministry of the Environment and Waters
CoM	Council of Ministers
KIDSF	Kozloduy International Decommissioning Support Fund
NSI	National Statistical Institute
OPC	Operational Programme "Development of the Competitiveness of the Bulgarian Economy 2007-2013"
PSHPP	Pumped storage hydropower plant
EMEPA	Enterprise for Management of Environmental Protection Activities
TPP	Thermal power plant
PvPP	Photovoltaic power plant

UNITS OF MEASUREMENT

GWh	Gigawatt-hour
kWh	Kilowatt-hour
MW	Megawatt

This report on the achievement of the national indicative targets for consumption of electricity produced from renewable energy sources has been drawn up in compliance with Article 5(1)(2) of the Renewable and Alternative Energy Sources and Biofuels Act (promulgated: SG No 49 of 19 June 2007; amended: SG No 98 of 14 November 2008, in force from 14 November 2008; No 82 of 16 January 2009, in force from 16 October 2009; No 102 of 22 December 2009).

Pursuant to Article 3(3) of Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market, Member States must publish, for the first time not later than 27 October 2003 and thereafter every two years, a report which includes an analysis of success in meeting the national indicative targets taking account, in particular, of climatic factors likely to affect the achievement of those targets. These reports must also indicate to what extent the measures taken are consistent with the national climate change commitments.

In pursuance of the obligations of the Republic of Bulgaria under Directive 2001/77/EC, the report on the achievement of the national indicative targets for consumption of electricity produced from renewable energy sources adopted by the Council of Ministers will be submitted to the European Commission.

I. EU POLICY ON THE DEVELOPMENT OF RENEWABLE ENERGY SOURCES

I.1. Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market

Directive 2001/77/EC of the European Parliament and of the Council of 27 September 2001 on the promotion of electricity produced from renewable energy sources in the internal electricity market has imposed on Member States the obligation to increase the use of renewable energy within the Community. The Directive has set national indicative targets for each Member State by 2010. In accordance with its requirements, Bulgaria has made a commitment to achieve a 11% share of electricity produced from renewable energy sources (RES) in the gross national electricity consumption by 2010 (as specified in the Annex to Council Directive 2006/108/EC of 20 November 2006).

Figure 1 shows the indicative targets for Member States for 2010 and the share of electricity produced from RES in the gross national electricity consumption in 2008.

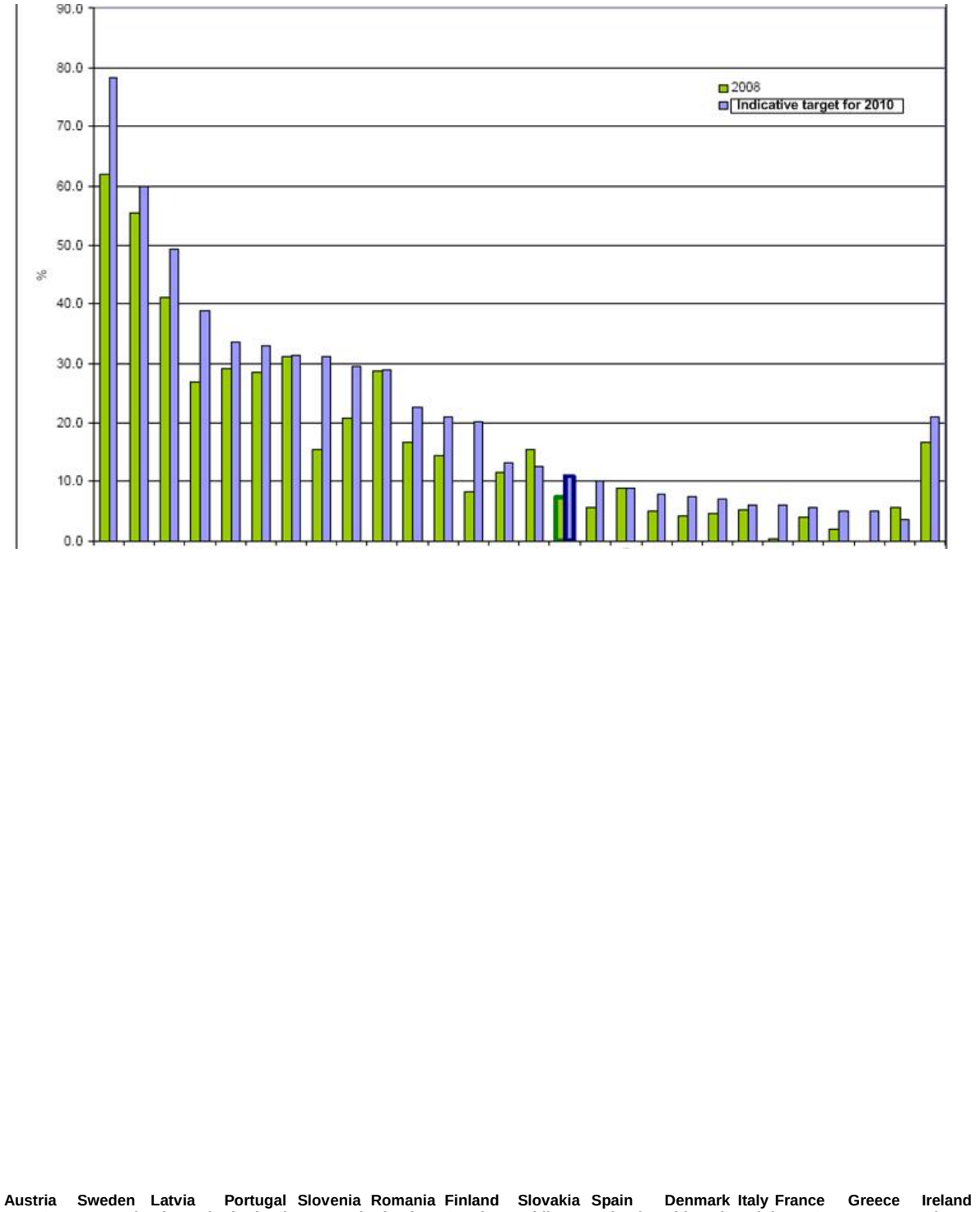

Figure 1: Share of electricity produced from RES in the gross national electricity consumption in 2008 and indicative targets for 2010 for the Member States and in total for the EU-27

Source: Energy, transport and environment indicators, Eurostat Pocketbooks, 2010 Edition

In its communication[1] presented on 31 January 2011, the European Commission noted that the EU target of a 21 % share of renewable energy in electricity generation by 2010 was not likely to be met. In the electricity sector, only seven of the 27 Member States expected to achieve their targets, the expected share of electricity produced from RES in the total Community consumption being 19.4 %.

Bulgaria is one of the countries which achieved its national indicative target for 2010, with which it contributes towards the European Union meeting its target.

I.2. Directive 2009/28/EC on the promotion of the use of energy from renewable sources

Directive 2009/28/EC of the European Parliament and of the Council on the promotion of the use of energy from renewable sources and amending and subsequently repealing Directives 2001/77/EC and 2003/30/EC was adopted on 23 April 2009. The Directive has established a much more stringent regulatory framework than in the past, introducing mandatory national 2020 targets:

- for the overall share of energy from renewable sources in gross final consumption of energy; and
- for the share of energy from renewable sources in transport.

The mandatory national overall targets for each Member State are set out in Annex 1 to the Directive. The target set for Bulgaria is a 16% share of energy from renewable sources in the gross final consumption of energy[2] by 2020, which also includes the mandatory target of a 10 % share of energy from renewable sources in the final consumption of energy in transport.

Directive 2009/28/EC has placed serious obligations on Bulgaria but it has also created a number of outstanding opportunities for the successful and flexible development of the sector by way of "statistical transfers", "joint projects" and "joint support schemes".

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[1] COMMISSION STAFF WORKING DOCUMENT - Recent progress in developing renewable energy sources and technical evaluation of the use of biofuels and other renewable fuels in transport in accordance with Article 3 of Directive 2001/77/EC and Article 4(2) of Directive 2003/30/EC; Accompanying document to the Communication from the Commission to the European Parliament and the Council - Renewable Energy: Progressing towards the 2020 target, [COM(2011) 31 final].

[2] Gross final consumption of energy means the energy commodities delivered for energy purposes to industry, transport, households, services including public services, agriculture, forestry and fisheries, including the consumption of electricity and heat by the energy branch for electricity and heat production and including losses of electricity and heat in distribution and transmission. This definition is in accordance with Directive 2009/28/EC.

I.3. National Renewable Energy Action Plan

The National Renewable Energy Action Plan (NREAP) provides a roadmap for the development of the renewable energy sources sector in Bulgaria until 2020 in order to attain the mandatory target of 16 % for the share of energy from renewable sources in the gross final consumption of energy. In accordance with the requirements of the Directive, each Member State was under the obligation to develop a national renewable energy action plan and notify it to the Commission by 30 June 2010. Bulgaria's national plan was drawn up in accordance with the obligatory template developed by the Commission, adopted by Commission Decision of 30 June 2009. It ensures the achievement of the national targets for the share of energy from renewable sources in the gross final consumption of energy and in transport. Among the priorities of the national energy policy is the widespread use of energy from renewable sources and the implementation of energy efficiency measures, which is consistent with the objectives of the new EU energy policy. The use of RES, together with the rational use of energy is a major driver for sustainable development, which ensures at the same time the achievement of security of supply objectives, reduces dependence on abrupt changes in oil prices, contributes to reducing the trade imbalance and encourages job creation.

In accordance with the requirements of Directive 2009/28/EC, the use of renewable energy is analysed, promoted and reported separately along three lines:

- consumption of electricity from renewable sources;
- consumption of heating and cooling from renewable sources;
- consumption of renewable energy in transport.

The NREAP defines the actions to be taken by the State, local and regional authorities by 2020 in order to promote the use of RES and the general framework to be implemented by changing the existing national laws and regulations (http://www.mee.government.bg/gnews/gnews/docs.html?id=320453).

It also outlines the sectoral targets and trajectories developed in compliance with the template for national renewable energy action plans. The forecast share of energy from renewable sources in the different sectors is calculated on the basis of common indicators and criteria and assumptions of the specific development of each RES type.

As regards the production of electricity from RES, it is expected to reach 7 537 GWh in 2020, mainly through the use of water and wind power.

Every two years, reports will be submitted to the Commission on the progress of the country in the promotion and use of energy from renewable sources, the first report being due by 31 December 2011.

II. NATIONAL POLICY ON THE DEVELOPMENT OF RENEWABLE ENERGY SOURCES

II.1. Renewable and Alternative Energy Sources and Biofuels Act

The Renewable and Alternative Energy Sources and Biofuels Act[3] has introduced the following incentives to promote the production of electricity from renewable energy sources:

- priority connection of producers of electricity from RES to the transmission and/or distribution network;
- mandatory off-take of the electricity generated from RES with the exception of electricity produced by hydropower plants (HPPs) with an installed capacity of more than 10 MW, with the period of validity of the agreements with producers of electricity from geothermal and solar energy being 25 years and the period of validity of the agreements with producers of electricity from other types of RES – 15 years;
- preferential purchase prices for electricity with the exception of electricity produced by HPPs of more than 10 MW installed capacity.

II.2. Ordinance on issuing guarantees of origin of electricity produced from renewable energy sources

Article 19 of the Renewable and Alternative Energy Sources and Biofuels Act provides that the State Energy and Water Regulatory Commission (SEWRC) should issue guarantees of origin to producers of electricity from renewable energy sources. The form, content, conditions and procedure for issuing guarantees of origin have been laid down in the Ordinance on issuing guarantees of origin of electricity produced from renewable energy sources[4]. The Ordinance also lays down the terms and procedure for registration in the public register kept in accordance with the Ordinance of the relevant circumstances and the manner in which information can be obtained from the register.

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[3] Promulgated: SG No 49 of 19 June 2007; amended: SG No 98 of 14 November 2008, in force from 14 November 2008; No 82 of 16 October 2009, in force from 16 October 2009; and No 102 of 22 December 2009.

[4] Promulgated: SG No 10 of 6 February 2009; amended: SG No 85 of 29 October 2010.

Guarantees of origin are official non-transferable documents showing the amount of electricity produced from RES for a period of 6 months in the case of producers with a capacity exceeding 1 MW, or for a period of 12 months in the case of producers with a capacity not exceeding 1 MW.

II.3. Incentive mechanisms

II.3.1. Preferential prices

In pursuance of the provisions of Article 21(1) of the Renewable and Alternative Energy Sources and Biofuels Act, by 31 March each year, the SEWRC sets preferential prices for the sale of electricity produced from renewable or alternative energy sources, with the exception of energy produced by HPPs with an installed capacity exceeding 10 MW. The preferential price for electricity produced from RES is calculated on the basis of 80 per cent of the average selling price of the public provider or end suppliers for the previous calendar year increased by a supplement depending on the type of primary energy source, determined in accordance with the criteria laid down in the Ordinance on regulating the prices of electric power.

The preferential prices for electricity produced from RES, set by decisions of the SEWRC, are given in Table 1.

Table 1: Preferential prices for electricity produced from RES in BGN/MW (with the exception of electricity produced by HPPs of more than 10 MW installed capacity)

	2008	**2009**	**2010**
SHPPs of up to 10 MW installed capacity	97.12	105	110.79
SHPPs of up to 5 MW capacity			
low-head run-of-river HPPs		199	200.09
low-head axial-flow HPPs		149	152.59
WPPs of 800 kW or more installed capacity			
with up to 2 250 full-load hours	185.95	189	190.59
with over 2 250 full-load hours	167.90	172	174.44
WPPs of less than 800 kW installed capacity and asynchronous cage rotor generator	139.96	145	148.79
PvPPs with an installed capacity of			
up to 5 kW	782	823	792.89
over 5 kW	718	755	728.29

PPs using biomass			
PPs of over 5 MW capacity using forestry residues			222.49
PPs of up to 5 MW capacity using waste wood	215	217	217.19
PPs of up to 5 MW capacity using agricultural crop residues	162	166	168.74
PPs of up to 5 MW capacity using energy crops	184	187	188.69
PPs indirectly using biomass from vegetable or animal substances with an installed capacity of			
up to 150 kW		197.90	199.05
more than 150 kW up to 500 kW		181.60	183.56
more than 500 kW up to 5 MW		165.30	168.08
PPs indirectly using energy from household waste with an installed capacity of			
up to 150 kW		275	272.29
more than 150 kW up to 500 kW		264	261.84
more than 500 kW up to 5 MW		253	251.39
PPs indirectly using energy from municipal sewage sludge with an installed capacity of			
up to 150 kW		147	150.69
more than 150 kW up to 500 kW		132	136.44
more than 500 kW		114	119.34

Source: SEWRC Decision No TS-015 of 31 March 2008, Decision No TS-03 of 16 March 2009, Decision No TS-04 of 30 March 2009, Decision No TS-14 of 12 May 2009, Decision No TS-15 of 12 May 2009, Decision No TS-30 of 7 September 2009, Decision No TS-31 of 7 September 2009, Decision No TS-018 of 31 March 2010, and Decision No TS-038 of 27 September 2010. The preferential prices set out above are exclusive of VAT.

The Ordinance on regulating the prices of electric power (NRTSEE) establishes the prices of electricity. For the purposes of non-discriminatory and transparent offsetting of the costs resulting from the obligation to purchase the electricity produced from RES at preferential prices, pursuant to Article 13(5) of the Ordinance, the SEWRC adopted by Decision No 78 of 22 June 2009 a *Methodology for compensating the costs of the public provider and end suppliers incurred in connection with their public service obligations to purchase the electricity from renewable energy sources at preferential prices*, which was subsequently amended by Decision No 94 of 25 June 2010.

The Methodology establishes a fair mechanism for covering that part of the costs related to the off-take of energy from renewable sources at preferential prices which exceeds 80 % of the average selling price of end suppliers of electricity for the previous calendar year. The supplement for the so-called "green energy", including energy for export, is paid equally by all consumers on the territory of the country.

The mechanism for a more equitable distribution of the costs related to the purchase of electricity from RES provides that the supplement for "green energy" to the price for transmission of electricity, which is paid by all consumers for each MWh of energy, is calculated each year. The amount of the supplement in 2009 was 2.12 BGN/MWh, while in 2010 it increased to 3.03 BGN/MWh (the price is exclusive of VAT).

II.3.2. Support schemes for projects for construction of power plants using RES

The main financial mechanisms implemented in the country to promote the production and consumption of electricity from renewable sources are as follows:

- The Energy Efficiency Fund (EEF, http://www.bgeef.com) finances investments in energy efficiency and renewable energy. The Fund offers free technical assistance and lower interest rates on loans than those prevailing on the market. Projects totalling BGN 30 000 to BGN 3 million with a payback period of up to 5 years are eligible for financing.
- The Bulgarian Energy Efficiency and Renewable Energy Credit Line (BEERECL, http://www.beerecl.com) facility offers free technical assistance and grants of up to 15 % of the amount of borrowed capital to private companies. The BEERECL facility finances a wide range of energy efficiency and renewable energy projects of private companies.
- Projects for electricity generation from RES are also supported by the Investment Promotion Act, 13 projects totalling BGN 2 841.3 million for the construction of WPPs, PvPPs and HPPs being certified by a class A certificate in 2010.
- The Enterprise for Management of Environmental Protection Activities (EMEPA) is a state-owned enterprise set up under the Environmental Protection Act. The enterprise provides financial assistance for a wide variety of projects contributing to the creation of a cleaner environment. As regards RES, it helps

to construct small HPPs by offering interest-free loans with a duration of up to 5 years, amounting up to 70 % of the total costs of the project but not exceeding BGN 1.5 million, imposing the requirement that the investment costs per kilowatt to build should be up to 2 500 BGN/kW.

- The Energy Efficiency Facility of the European Investment Bank and the Kozloduy International Decommissioning Support Fund encourages the development of energy efficiency and RES in Bulgaria. The facility provides loans combined with grants of 20 %, as well as technical assistance for the preparation and implementation of projects. Projects costs should range between EUR 40 000 and EUR 25 million (http://www.eib.org/products/loans/kids/index.htm).

- The utilisation of the local renewable energy potential has also been set as a priority objective of the National Strategic Reference Framework 2007-2013. Individual operations have been included in the Operational Programmes "Development of the Competitiveness of the Bulgarian Economy" and "Regional Development", as well as in the Rural Development Programme 2007-2013.

- Rural Development Programme (RDP) 2007-2013 (http://www.mzh.government.bg): the European Commission approved the third modification of the Rural Development Programme (2007-2013) in relation to the implementation of the European Economic Recovery Plan (EERP) adopted in December 2008. It envisages the provision of additional financial incentives for Member States to rapidly overcome the effects of the global economic and financial crisis. The funds under the EERP were allocated by Commission Decision of 4 March 2010 approving the revision to the rural development programme of the Republic of Bulgaria for the 2007-2013 programming period and amending Commission Decision • (2008) 755 of 19 February 2008 approving the rural development programme CCI 2007BG06RPO001.

  The sectors to which EERP funds are targeted are: water management, restructuring of the dairy sector and renewable energy sources. Accordingly, 35 % of the additional funds which Bulgaria receives under the RDP within the framework of the EERP are directed towards the priority area selected by the country – renewable energy:

- facilities for energy generation from renewable energy sources;
- facilities for bioenergy generation from processed biomass;
- creating plantations of perennial energy crops;
- renewable energy installations/infrastructure using biomass and other RES (solar, wind and geothermal energy).

The main challenges addressed by the European Economic Recovery Plan lie in the areas of climate change, renewable energies, dairy restructuring, water management, biodiversity conservation, and introducing innovations in agriculture.

Measure 121 "Modernisation of agricultural holdings" supports investments for biogas production from organic residues from the agricultural activities of the holding and local production; investments for heat or power generation from biomass, including construction or renovation of warehouses for biomass (only for agricultural needs); and the planting and/or replanting of fast-growing shrubs and trees for bioenergy production.

Measure 123 "Adding value to agricultural and forestry products" supports investments in buildings and equipment for bioenergy production in the processing of the products (raw materials) listed in Annex I to the Treaty establishing the European Community and from other renewable energy sources only for the energy needs of the processing plant. Under this measure, the amount of the financial assistance increases by 10 % for the following investments:

- investments in buildings and equipment to improve energy efficiency, such as for example construction materials reducing heat losses;
- investments in buildings and equipment for bioenergy production in the processing of the products (raw materials) listed in Annex I to the Treaty establishing the European Community;
- investments in buildings and equipment for energy generation from other RES only for the energy needs of the processing plant;
- investments in buildings and equipment for waste water treatment;
- investments in the processing and marketing of milk and milk products.

The amount of the aid increases from 50 % to 60 % for micro, small and medium-sized

enterprises and from 25 % to 35 % for intermediate companies.

Measures 311 "Diversification into non-agricultural activities" and **312** "Support for the creation and development of micro-enterprises" provide grant assistance for investments aimed at promoting energy generation by installations using renewable sources of up to 1 • W capacity.

Under measure 311, the amount of the financial assistance increases by 10 % for the following investments:

- investments in buildings and equipment for the production and sale of bioenergy by processing biomass (raw materials) coming from the own agricultural holding and for the production and sale of energy from other renewable energy sources.

The amount of the aid increases up to 80 %.

Under measure 312, the amount of the financial assistance increases by 10 % for the following investments:

- investments in buildings and equipment for the production and sale of energy from renewable energy sources, with the exception of those falling within Annex I to the Treaty establishing the European Community. The amount of the aid increases up to 80 %.

Measure 321 "Basic services for the rural economy and population" – the beneficiaries of which are municipalities, non-profit organisations and community centres – provides grants for investments in infrastructure and equipment, including installations for heat and/or power generation from renewable energy sources in municipally-owned and/or public service buildings, the construction of a biofuel distribution network or electricity/heat generation from biomass or other RES.

- As part of the EU energy programmes in which Bulgaria participates, namely the Seventh Framework Programme and Intelligent Energy – Europe, Bulgarian research institutes, organisations and companies actively take advantage of the possibilities for collaboration and support of research and development activities and technological innovations, as well as the development of policies, programmes and strategies, including those aimed at raising public awareness and knowledge in the field of renewable energy sources.

The *European Local Energy Assistance* (ELENA) facility established by the European Commission in cooperation with the European Investment Bank is part of the "Intelligent Energy – Europe" programme. Under the facility, assistance is granted to local and regional authorities for the preparation of investment programmes for energy efficiency and renewable energy sources. The ELENA facility covers the costs of technical assistance that is necessary to design and implement projects in such a way as to attract additional funding. With the help of the facility, up to 90 % of the costs related to the technical preparation of investment programmes may be covered, eligible expenditure being that incurred in respect of feasibility studies, structuring of programmes, business plans, audits, tendering procedures and contracts, establishing project management groups, VAT expenses if the beneficiary may not recover them. The beneficiaries are local and regional authorities, public authorities or a group of authorities, provided that the respective investment programme will contribute to the achievement of the EU's "20-20-20" targets.

- Operational Programme "Development of the Competitiveness of the Bulgarian Economy 2007-2013" (OPC, http://www.opcompetitiveness.bg/en/index.html): under the OPC, funds have been earmarked for financing renewable energy projects, which will be implemented in enterprises in the manufacturing and services sectors. In the Indicative Annual Programme, EUR 97 979 112 are earmarked for the forthcoming procedures under the OPC for 2011, the grants envisaged ranging from 50 % to 70 % depending on the type of enterprise (micro, small, medium-sized and large). No funds have been granted under this programme for the implementation of renewable energy projects yet.

III. ELECTRICITY GENERATION FROM RENEWABLE SOURCES IN BULGARIA IN 2010

In 2010, water, wind and solar energy and biomass was used for electricity generation from renewable energy sources.

A significant proportion of renewable electricity is produced in large hydropower plants (HPP) with a total installed capacity of 1 918.9 MW. Over the recent years small HPPs of less than 5 MW installed capacity have mostly been constructed and in 2010 their capacity reached 241 MW, which is higher by 12.6 % compared to 2009.

The construction of wind power plants (WPP) continued in 2010 and their installed capacity reached 465 MW. As compared to 2009, wind energy capacity has increased by

38.4 %.

For the three years in which photovoltaic power plants were actively constructed (whose construction started in 2007), their total installed capacity reached 21.4 MW in 2010. It was with this type of power plants that the highest increase in capacity was registered in 2010 compared to the previous 2009 – by nearly four times.

Two small power plants for combined heat and power generation from biogas produced from sewage sludge are also in operation in the country, with a total installed electrical capacity of 3.5 MW. The energy produced by them is used to meet their own demand, while the rest of electricity is purchased by the grid operators.

Table 2: Installed capacities for electricity generation from RES in the Republic of Bulgaria

	Unit of measurement	2005	2006	2007	2008	2009	2010	%, 2010
HPPs	MW	1 879.4	1 883.4	1 876.3	1 865.4	1 869.0	1 918.9	72.4 %
SHPPs	MW	164.3	175.7	197.7	205.0	214.0	241.4	9.1 %
WPPs	MW	7.5	25.5	40.7	112.6	335.0	465.4	17.6 %
PvPPs	MW			0.03	0.11	5.7	21.4	0.8 %
PPs using biogas	MW					3.5	3.5	0.1 %
Installed capacity of power plants using RES	**MW**	**2 051.2**	**2 084.6**	**2 114.7**	**2 183.2**	**2 427.2**	**2 650.6**	**100.0 %**

Source: MEET[5]

In 2010, the largest quantity of electricity from renewable sources was produced, which amounted to 5 509 GWh and was due to the increased output of all power plants using RES.

Figure 2 shows the structure of gross national electricity production, from which it can be seen that the share of power plants using RES is 12.2 %. Last year, the highest output of electricity from HPPs over the last decade was also registered – 4 790 GWh – which accounts for 10.60 % of the gross national electricity production[6] (45 172 GWh).

[5] The data for 2010 are based on the preliminary figures of the MEET.

[6] For the purposes of this report, 'gross national electricity production' means the sum of the gross electrical energy production by all types of power plants in the country less the electricity output of Chaira PSHPP.

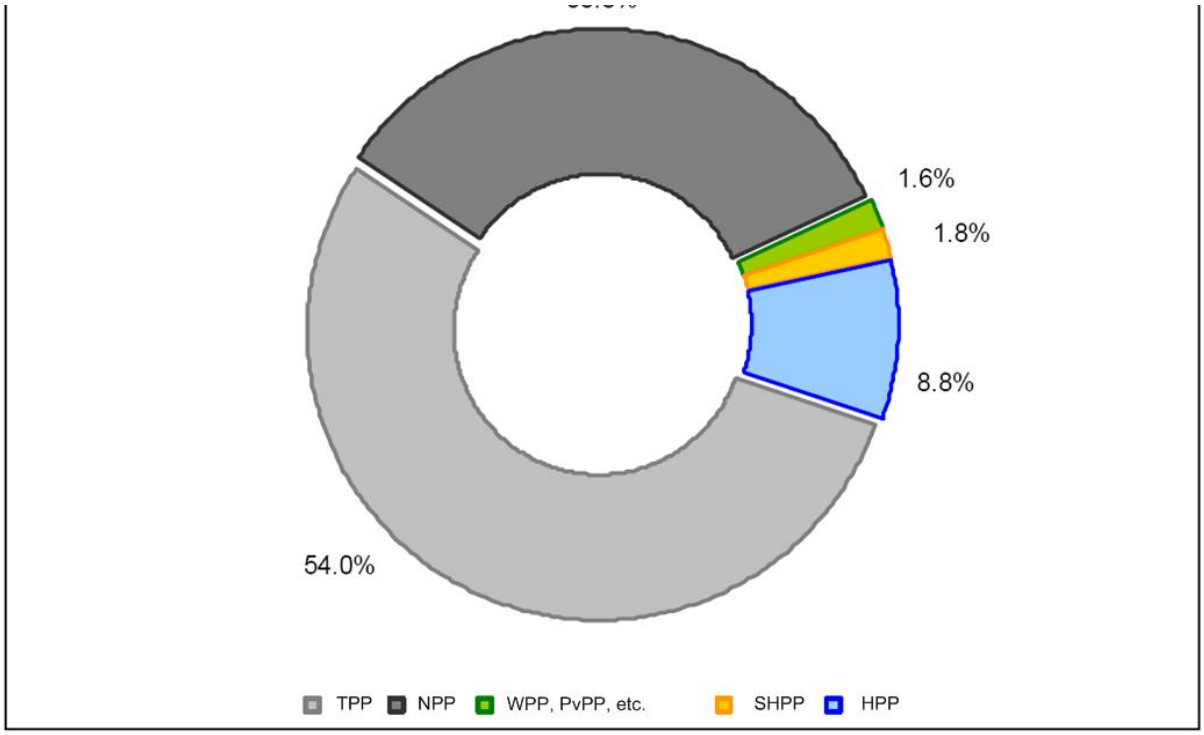

Figure 2: Structure of the gross electricity production in the Republic of Bulgaria

Source: MEET

In 2010 electricity production from hydroelectric sources remains dominant, but compared to previous years, the share of this type of power plants decreased to 72 %, while in 2009 it was 77 %. The main reason for this change was that new wind farms were put into operation, whose output accounted for 12.5 % of the electricity output from renewable sources in 2010. An increase in the volume of produced electricity can also be observed in photovoltaic power plants, which have increased their output by almost five times.

Table 3: Electricity output from RES, 2005-2010

	Unit of measurement	2005	2006	2007	2008	2009	2010	%, 2010
HPPs	GWh	3 787.8	3 717.9	2 369.5	2 296.7	2 866.0	3 967.6	72.0 %
SHPPs	GWh	548.2	520.1	504.5	527.3	604.0	822.0	14.9 %
WPPs	GWh	4.0	19.8	46.8	121.8	237.0	689.1	12.5 %
PvPPs	GWh			0.06	0.2	3.3	14.9	0.3 %
PPs using biogas	GWh					2.0	15.5	0.3 %
Electricity output from RES	**GWh**	**4 340.0**	**4 257.8**	**2 920.9**	**2 945.9**	**3 712.3**	**5 509.1**	**100.0 %**

Source: Energy balance sheets of the NSI for the years 2005, 2006, 2007, 2008 and 2009 and data for the year 2010 based on the preliminary figures of the MEET

IV. MEETING THE NATIONAL INDICATIVE TARGET FOR CONSUMPTION OF ELECTRICITY FROM RENEWABLE ENERGY SOURCES

Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market has set an indicative target for the Republic of Bulgaria of a 11 % share of electricity produced from renewable energy sources in the gross domestic consumption of electricity in the country, under favourable climactic conditions.

The report on the achievement of the national indicative targets for consumption of electricity produced from renewable energy sources in 2009, adopted by decision of the Council of Ministers of 31 March 2010, estimated that the share of electricity produced from RES in the gross domestic consumption of electricity in the country would amount to 11.9 %, which corresponds to an output of 4 330 GWh.

In 2010 the electricity output from renewable energy sources exceeded the estimated quantities by 21 %, with which the national indicative target set for 2010 of a 11 % share of electricity produced from RES in the gross domestic consumption of electricity was not only achieved but also overachieved by 4 %.

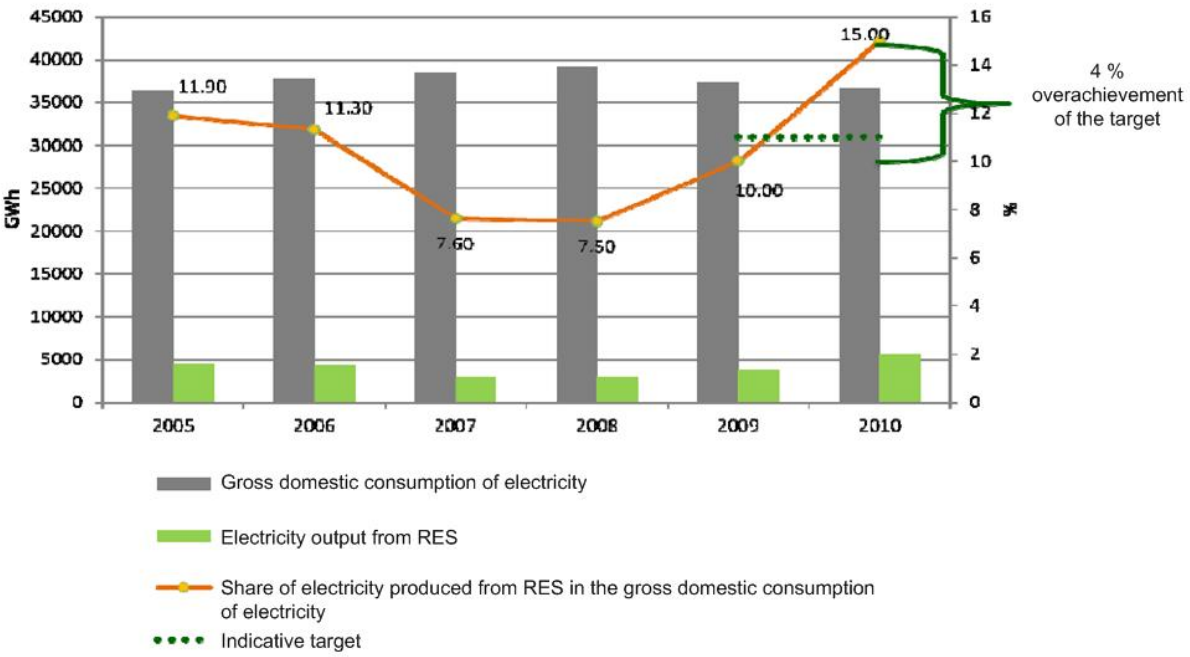

Figure 3: Share of electricity produced from renewable energy sources in the gross domestic consumption of electricity in 2010

Source: Energy balance sheets of the NSI for the years 2005, 2006, 2007, 2008 and 2009 and data for the year 2010 based on the preliminary figures of the MEET

There is considerable potential for utilisation of renewable energy sources in Bulgaria. In the light of the prevailing conditions, acquired experience and existing prerequisites for the development of the sector, it was certain that the country would meet its indicative target for 2010 of a 11 % share of electricity produced from RES. The production of electricity from renewable sources continues to be promoted. According to the figures supplied by the SEWRC, by the end of 2010, pursuant to Article 39(3) of the Energy Act, licences have been issued for the construction of energy facilities with the following capacity: wind power plants - 2 017 MW, photovoltaic power plants - 230.1 MW, power plants using biomass - 15 MW, or — in other words — a total of 2 262.1 MW.

V. DEVELOPMENT OF THE RENEWABLES SECTOR

The optimal use of renewable energy sources is a major driver for achieving sustainable energy development and minimising harmful environmental impacts resulting from the activities in the energy sector.

The Renewable and Alternative Energy Sources and Biofuels Act provides a number of incentives for the production of electricity from renewable sources in terms of prices, purchase obligations and long-term agreements. Preferential prices are an important factor to attract and

sustain investments and create a favourable business environment, which is to promote the construction of power plants using renewable energy sources. The setting of preferential prices for the electricity produced by photovoltaic power plants has stimulated investments also in this type of high-technology and expensive installations. This, together with several other factors, has led to increased investor appetite for electricity generation from renewable energy sources.

In the context of these conditions, the development of renewable energy should also take into account the safe operation of the national electricity system, congestion management, biodiversity conservation and the protection regimes for the areas of conservation. It is necessary to streamline the existing rules and procedures in order to achieve sustainable development of the renewables sector.

The transposition of Directive 2009/28/EC into national law entailed some legislative changes in the field of renewable energy sources. The Ministry of Economy, Energy and Tourism developed a draft new Renewable Energy Act, which was approved by Decision No 73 of 8 February 2011 of the Council of Ministers and adopted at first reading by the National Assembly on 24 February 2011.

The adoption of the new Act was prompted by the obligation to transpose into national law the provisions of Directive 2009/28/EC and the need to establish clear rules for the granting of preferences in the renewable energy sector. The changes to be made were too many and too substantial in comparison to the existing legal framework to be implemented by an Act amending the Renewable and Alternative Energy Sources and Biofuels Act. The new draft Act regulates the public relations surrounding the production and consumption of energy from RES.

With a view to implementing the provisions of Directive 2009/28/EC, the draft Act provides for appropriate measures to promote energy generation from renewable sources, taking into account the impact of improving energy efficiency and introducing energy efficiency technologies. It establishes the mechanisms necessary to achieve the objectives of the Directive and the national targets for increasing the share of renewable energy in the gross final energy consumption and creates the conditions to achieve sustainable development in the country. It widens the scope of the sectors covered by the Act, while retaining the principle of mandatory off-take of the electricity generated on the basis of long-term agreements and at preferential prices. The preferential prices are fixed for the entire duration of the agreement by the SEWRC in accordance with the Ordinance on regulating the prices of electric power

pursuant to the Energy Act (*adopted by Decree No 35 of the Council of Ministers of 20 February 2004, promulgated: SG No 17 of 2 March 2004, amended: SG No 62 of 31 July 2007*). In order to facilitate the financing of projects and better predict the price of energy from renewable sources in the energy mix, the preferential prices for the off-take of the energy produced from renewable energy sources are fixed for the entire duration of the agreement. The principle of planned development of the electricity transmission and distribution networks and determining the maximum electrical capacities that can be provided for connection of energy facilities generating energy from renewable energy sources by connection zones and voltage levels is applied. A balance in the responsibilities borne by the investor and the connecting company is introduced with the requirement to lodge a guarantee for participation in the connection procedure and make an advance payment for the connection of the energy facilities constructed by the investor.

As regards energy facilities on roofs and façade structures and those that will not benefit from preferential prices and mandatory off-take of the electricity produced, a derogation from the rule for provision of connection capacity is envisaged. For the first category of energy facilities, the draft Act provides that the procedures accompanying the investment process be facilitated by amendments to the Spatial Planning Act.

To comply with the provisions of Directive 2009/28/EC, the issue of guarantees of origin for the energy produced from renewable sources is provided for, which are to be used by the electricity supplier to show to final consumers the share of energy from RES in the overall energy mix of that supplier. The activities related to the issuance, transfer and cancellation of guarantees of origin will be carried out by the newly established Agency for Sustainable Energy Development and supervised by the Minister of Economy, Energy and Tourism.