

2011 Survey of resource efficiency policies in EEA member and cooperating countries

COUNTRY PROFILE:

Bulgaria



Country information on resource efficiency policies,
instruments, objectives, targets and indicators,
institutional setup and information needs

May 2011

This country profile is based on the information provided by Veselina Roshleva and Rositsa Karamfilova from the Bulgarian Executive Environment Agency. The information is current as of February 2011.

This country profile was prepared as part of the EEA-ETC/SCP 2011 survey of resource efficiency policies, which aims to collect, analyze and disseminate information about national experience in the development and implementation of resource efficiency policies in EEA member and collaborating countries. The work resulted in the following outcomes:

- **Short 'country profiles' (this document)** - self assessments prepared by countries, describing the current status of resource efficiency policies, including key strategies and action plans, policy objectives, instruments, targets and indicators used, institutional setup and information needs.
- **Summary report** - prepared by the EEA and ETC/SCP, the report reflects on trends, similarities and differences in policy responses, showcases selected policy initiatives from member countries and identifies information needs and knowledge gaps.
- A session on resource efficiency policies during the 2011 EIONET workshop to discuss further needs and to facilitate information sharing and experience exchange among EIONET members.

More information about resource efficiency policies, including an analytical report "Resource efficiency in Europe" and thirty one country profiles, can be found at:

<http://www.eea.europa.eu/resource-efficiency>

1. Resource use in Bulgaria – facts and figures

1.1 General facts and figures about the country



Source:
<https://www.cia.gov/library/publications/the-world-factbook/index.html>

Population (projected inhabitants for 2010) [1]	7,563,710
➤ Percent of total EEA-32	1.29%
Surface area (km ²) [2]	110,879
➤ Percent of total EEA-32	1.95%
GDP at market prices – Purchasing Power Standard – Current Prices (Million Euro, 2009) [3]	78,938.3
➤ Percent of total EEA-32 (minus Liechtenstein)	0.6%
GDP per capita in Purchasing Power Standards (PPS) [4] EU27=100 (2009)	44
Urban population (rate of pop., 2009) [5]	71.4%
Main economic sectors and their share in total GDP (2009 est.) [2]	
Agriculture	7.5%
Industry	27.6%
Services	64.9%
EU accession date [6]	1.1.2007

Additional relevant background information on Bulgaria (and on 37 other EEA member and cooperating countries) can be found at the SOER2010 website:

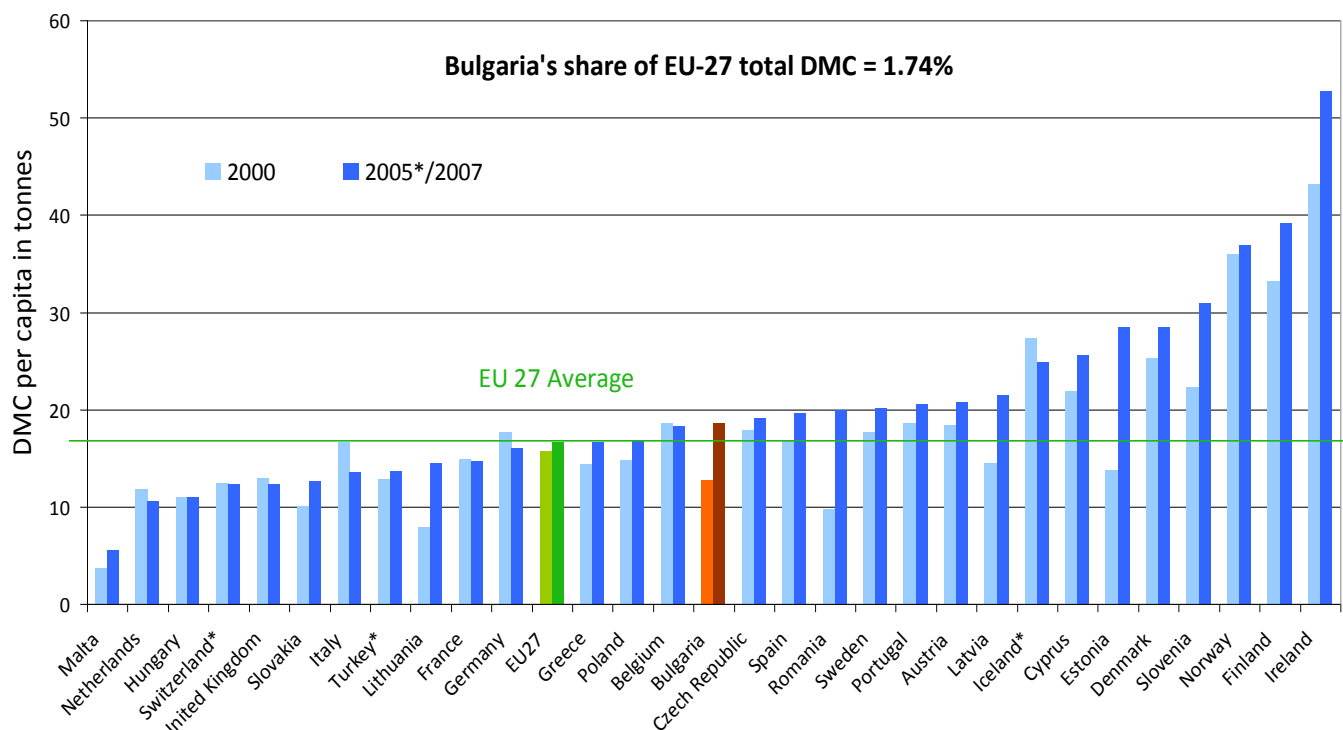
<http://www.eea.europa.eu/soer/countries/bg>

Factsheet on national waste policies for Bulgaria is available at:

http://scp.eionet.europa.eu/facts/factsheets_waste/2009_edition/factsheet?country=BG

1.2 Facts and figures on resource efficiency for Bulgaria

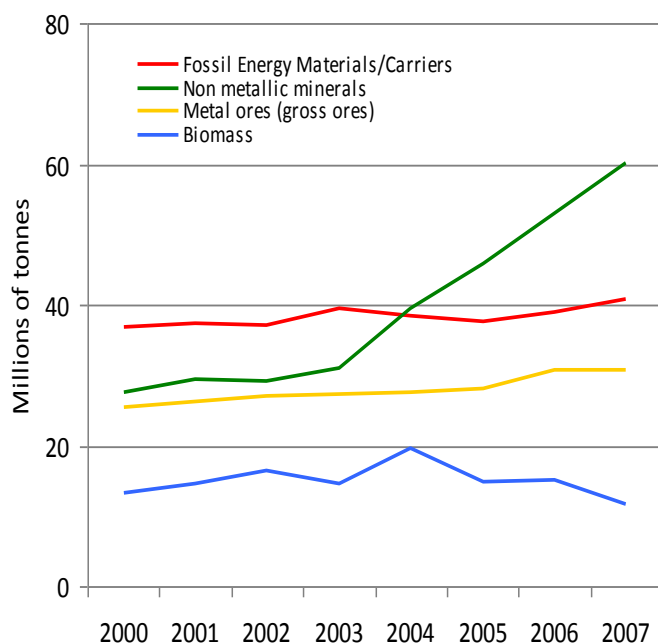
Use of resources per capita 2000 and 2007 [tonnes DMC/capita]



Source: Eurostat, OECD and Total Economy Database [7]

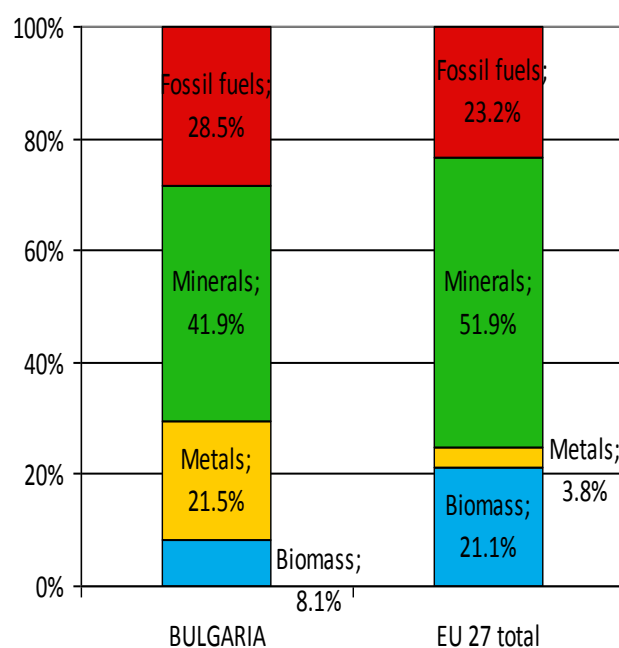
* = For these countries data is for 2000 and 2005.

Domestic Material Consumption by category over time, Bulgaria



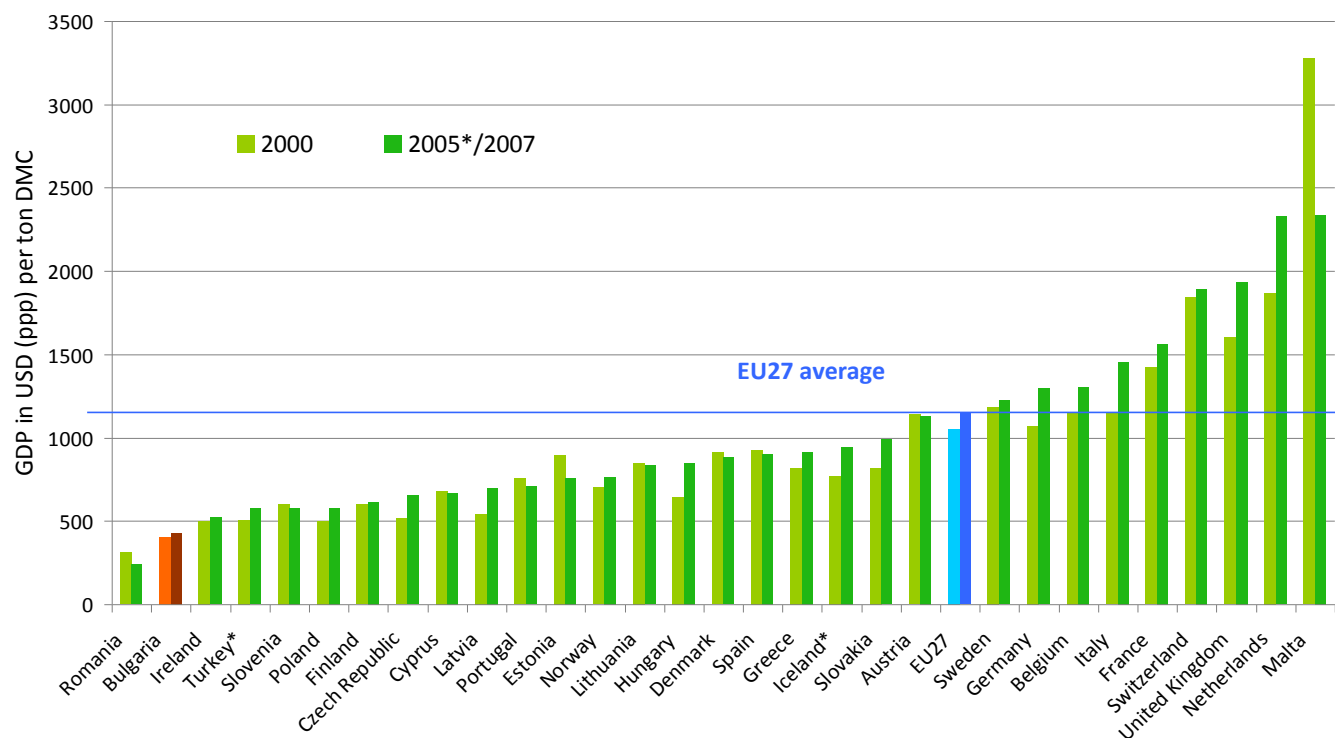
Source: Eurostat [8]

Breakdown of DMC by type of materials (2007)



Source: Eurostat [8]

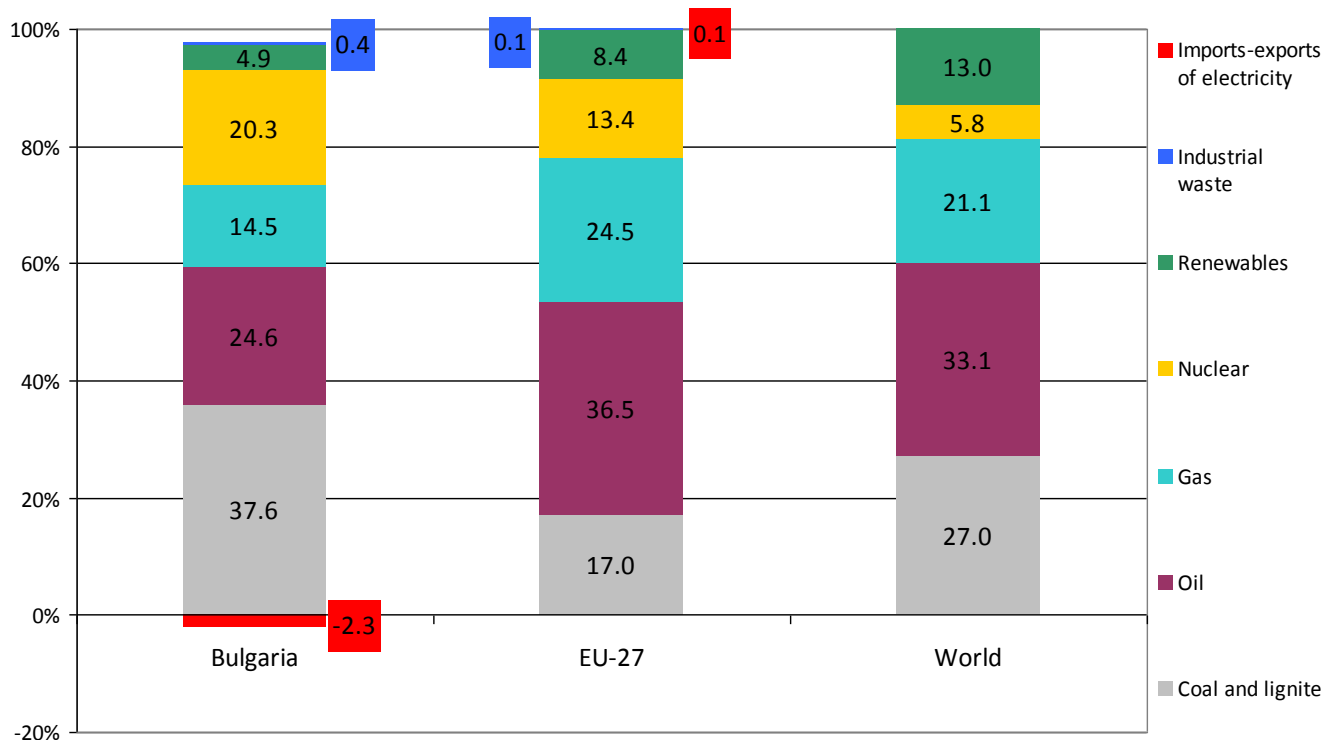
Material productivity 2000 and 2007 [USD ppp/ton DMC]



Source: The Conference Board, Total Economy Database, Eurostat [9]

* = For these countries data is for 2000 and 2005.

Primary energy consumption



Source: Eurostat [10]

2. Evolution and main drivers for the development of resource efficiency policies

The challenge is to create a positive circle: improving the overall environmental performance of products throughout their life cycle (the so-called "integrated product policy of the European Commission), promoting and stimulating demand for better products and production technologies and helping consumers make better choices with consistent and simple labeling.

To achieve the above, it is necessary to set up the following:

- Identify priority product groups for which to develop advanced environmental design criteria. These product groups should be widely spread and have significant influence on the environmental components.
- Preparation of integrated criteria for environmentally friendly products throughout the life cycle. These should take into account the effect of different production methods and technology, applied for one product. To determine the performance and functional requirements for products produced based on the sustainable management of materials upon certain conditions, it is necessary to use specifications based on European, international and national eco conditions and labels.
- The production and consumption of certified products can be promoted by applying market based instruments at the national level; differential taxation, both in terms of producers and consumers; targeted subsidies for projects set up for the sustainable management of resources in the form of grants, free or low loans, etc.
- Carry out information campaigns oriented at different groups to promote production and use incentives for certificated products, focusing on the role of the concept of sustainable materials management to ensure a healthy environment and a better quality of life for current and future generations. Some examples include ISO 9001; ISO 14000; national standard (BS for Bulgarian yoghurt; BG guidelines for quality and/or environmental management systems auditing -ISO 19011:2002)

3. Overall Policy Approach for Resource Efficiency

Bulgaria does not have a special national resource efficiency strategy or action plan. However, many national policy documents include measures for improving the management plan about effectiveness and resources.

The following are the most important national policy documents that contain resource efficiency measures:

- **National Strategic Reference Framework , 2007-2013,**
http://www.europe.bg/upload/docs/NSRR_protokol52.pdf

This 2006 Strategy is a long term document and describes the role of structure funds for the period 2007-2013, to support the global development of Bulgaria. This document provides the main aims and expected results that are going to be obtained step by step in the process of implementations.

- **Concept of Programming the development of Bulgaria adopted by Council of Development of Council of Ministers,**
http://www.government.bg/fce/001/0211/files/prog_concept.doc

The Programming of the developments are based on the good practice and connections between specific official documents (like programs, strategies, plans), which define the time period targets and measures for the economic, social and environmental development of Bulgaria.

In June 3, 2010 the Bulgarian Council of Ministers created the Council for Development. The mission of the Council for Development is to provide the most effective coordination and coherence in programming and implementation of development policies in Bulgaria, such as the first long-term national program document for the development of Bulgaria; National Development Programme: BULGARIA 2020.

Some measures are included in the **National Reform Programme 2010 – 2013** (being prepared). This Programme is developed in relation with the strategy Europe 2020 and is currently adopted at national level in a preliminary version and has been sent to the European Commission. The Programme indicated:

“Measures for improving the effectiveness of natural resources use:

- Establishment of a uniform body for the management of mineral resources within the Ministry of Economy, Energy and Tourism (MEET) in order to introduce a uniform approach when defining the government policy for mineral resources management; this approach will be applicable to the entire process, which encompasses the phases of demand, research and exploitation as well as management of technological waste;
- Creating a uniform regulatory framework for the three subsectors (uranium, ore and coal extraction), which will ensure transparency and publicity of the allocation and priority spending of the budget expenditures.

- **National Environmental Strategy 2009 - 2018**
http://www.moew.government.bg/recent_doc/strateg_plans/2009/MOSV_Strategia.doc

The main strategic objectives included in the above documents are:

- Reduce and prevent the consequences of climate change and strive toward clean energy;
- Provide sufficient quantity and good quality of water;
- A healthy environment for better quality of life;
- Encourage sustainable consumption and production;
- Limiting and halting the loss of biodiversity;

- Formation of new patterns of behaviour of society, environmentally friendly and promoting sustainable development, as well as providing better information and monitoring of the environment;

- **National Programme for Action on Environment and Health, 2008-2013**
http://www.moew.government.bg/recent_doc/strateg_plans/NPDOSZ.doc

This program reflects the main priorities of the European Action Plan on Environment and Health 2004-2010, the Sixth Environment Action Plan 2001 - 2012, as well as the European Strategy for Sustainable Development.

The more significant measures for introducing sustainable models for production and consumption of natural sources are:

- Development of a National Action Plan for Climate Change for the period 2012-2020;
 - Development of a National Action Plan for Encouraging “Green” Public Procurement;
 - Introducing charges per ton of disposed waste, owed by the individuals disposing waste at regional and municipal landfills for harmless and inert waste;
 - Introducing economic mechanisms (tax relief, discounts from product fees, rebates) for encouraging the development, production and marketing of products appropriate for reuse; tax relief and discounts from fees for economic subjects using recycled materials in their production; economic incentives for reducing the consumption of primary natural resources in construction and using “substitute” materials; high fees for the use of polyethylene bags; economic incentives for the development and marketing of briquettes from waste biomass;
 - Encouraging the reuse or the preparation for reuse of appropriate products or their components through establishing specialised centers for repair and preparation for reuse.
- **2007 Project on Sustainable Development Strategy of the Republic of Bulgaria**
http://www.moew.government.bg/recent_doc/strateg_plans/SDS_31_07_2007_last_version.doc

4. Strategies or action plans to improve resource efficiency for individual economic sectors, products or product groups

Environmental sector:

- National Programme for Waste Management for 2009-2013 period
http://www.moew.government.bg/recent_doc/waste/NWMP_2009-2013_FINAL.doc
- National Strategy for Biodiversity Conservation (adopted in 2009, updated in 2010)
http://chm.moew.government.bg/pdfs/bul/Nat_Strategies/Obsht-End-File.doc
- National strategy for developing and managing the water sector by 2015
http://www.moew.government.bg/recent_doc/waters/Strategia%20Voden%20Sektor-new.pdf
- National strategic plan for the stage by stage reduction of biodegradable waste for disposal. (2010 - 2020)
http://www.moew.government.bg/3E703B56-232B-4EA4-8008-631EAE495F59/FinalDownload/DownloadId2B139E8F7F8D6F040F7152B56FDF2E63/3E703B56-232B-4EA4-8008-631EAE495F59/recent_doc/waste/biowaste_strategy_2010.pdf

- Project for National Strategy for waste management of construction and demolition for the period 2020 (under preparation)

Energy sector:

- Energy Strategy on Bulgaria until 2020
<http://www.mi.government.bg/about/osndoc.html?id=299341>
- National Long Term Programme for Encouraging the Use of Biomass 2008-2020
- National Action Plan on Energy Efficiency 2008-2010
- National Action Plan for Renewable Energy (2010)
http://www.mee.government.bg/ind/doc_eco/REAP_0611.07.2010%20-%20202.pdf

Agriculture and Food sector:

- National Development Plan for organic farming in Bulgaria for 2007-2013
http://europa.bg/upload/docs/NOFAP_FINAL_bg.doc
- National Programme for Fisheries and Aquaculture 2009-2013
<http://europa.bg/upload/docs/NPRA.pdf>
- Programme for priorities in the Development of Bulgarian Agriculture for 2009-2013
http://europa.bg/upload/docs/2009_2013_633652852993125000.pdf
- National Programme for the Support of Sustainable Development of Fisheries 2008-2013
- National Action Programme for the Sustainable Management of Lands and Combating of Desertification 2007-2013
- National Strategy for Sustainable Development of the Forest Sector In Bulgaria 2006-2015

5. Individual types of resources identified as a priority for national or sector-specific resource efficiency policies

There is no formal identification of priority resources. However the water sector could be considered the most important because there is a need for significant investments in waste water treatment infrastructure and it is possible that fresh water scarcity could occur in the future. That's why a Water Sector Strategy is now in the process of elaboration, with the aim to fully reform the sector in order to improve water management, to ensure sufficient fresh water for the people, economy and ecosystems, as well as help with climate change adaptation.

6. Strategic objectives, targets and indicators on resource efficiency

More concrete and specific objectives are set as follows:

Energy Efficiency:

- Indicative goal – 9 % energy savings /627 ktoe/ from final energy consumption for the period 2008 – 2016.

- Mandatory national goal of Bulgaria for 16% share of renewable in gross final energy consumption, including a 10% share of the mandatory renewable energy in transport by 2020, (under Directive 2009/28/EO).

Natural Resources:

- Limiting the loss of biodiversity in Bulgaria by 2010.
- Emissions of sulphur dioxide, nitrogen oxides, volatile organic compounds and ammonia in ambient air and reaching the national thresholds for 2010 and maintaining them afterwards.
- Ensuring the achievement of the limit value for the PM_{2.5} in the air by 2015.
Construction of sewage treatment plants and urban waste water for cities with more than 10 000 inhabitants - up to December 31, 2010.
Construction of sewage treatment plants and urban waste water for cities over 2000 to 10 000 - until December 31, 2014.

Packaging waste - Achieve the following targets for recycling and recovery until 2013:

- Not less than 60% by weight of packaging waste is recovered or incinerated with energy recovery;
- Not less than 55% and not more than 80% by weight of packaging waste to be recycled;

Waste oils - 40% regeneration for 2012 and each subsequent year.

- End of Life vehicle-93% minimum for reuse and recovery and 84% minimum for reuse and recycling for 2013 (See Directive 2000/53/EC);

Waste of Electrical and Electronic Equipment- Achieve the following targets:

- For Category 1 and 10- Not less than 80 % recovery and not less than 75 % recycling or reuse.
- For Category 3 and 4 - Not less than 75 % recovery and not less than 65 % recycling or reuse.
- For Category 2,5,6,7 and 9 - Not less than 70 % recovery and not less than 50% recycling or reuse.
- For gas discharge lamps- not less than 80 % recycling or reuse.

Waste batteries and accumulators- Achieve the following targets after 2010:

- recycling of 65 % of lead-acid batteries and accumulators, including recycling of the lead content to the highest degree
- recycling of 75 % of nickel-cadmium batteries and accumulators, including recycling of the cadmium content to the highest degree
- recycling of 50 % of other waste batteries and accumulators

Municipal waste:

- By 2010 the amount of biodegradable municipal waste for land filling must be reduced to 75% based on of the total weight amount of biodegradable municipal waste produced in 1995;

- By 2013 the amount of biodegradable municipal waste for land filling must be reduced to 50% based on of the total weight amount of biodegradable municipal waste produced in 1995;
- By 2020 the amount of biodegradable municipal waste for land filling must be reduced to 35% based on of the total weight amount of biodegradable municipal waste produced in 1995;

Areas of the total arable land farmed organically to reach 8% by 2013

Land from Country Territory covered by forests to reach 35.9% in 2015

Main *indicators* for monitoring the decoupling of environmental impacts from economic growth are the energy intensity of the economy and the final energy consumption.

The following indicators are also used:

- Resource productivity – Eurostat indicator
- Components of domestic material consumption – Eurostat indicator
- Domestic material consumption by material – Eurostat indicator
- Municipal waste treatment, by type of treatment method– Eurostat indicator
- Municipal waste generated – Eurostat indicator
- Share of the population ensured with organised systems for collecting and transport of waste – Millennium Goals indicator
- Eco-label awards – Eurostat indicator
- Organisations with an environmental management system – Eurostat indicator
- Common bird index – Eurostat indicator
- Sufficiency of sites designated under the EU Habitats directive – Eurostat indicator
- Population connected to urban wastewater treatment with at least secondary treatment – Eurostat indicator
- Size of fishing fleet – Eurostat indicator
- Forest trees damaged by defoliation – Eurostat indicator
- Forest increment and felling – Eurostat indicator

For details of indicators see page:

<http://epp.eurostat.ec.europa.eu/portal/page/portal/sdi/indicators>

7. The institutional setup for the development and implementation of resource efficiency policies

There is no special authority for the coordination of resource efficiency policies. Different public bodies are responsible for different sectors. All above-mentioned sector-specific strategies and action plans are prepared in close cooperation with other relevant ministries and institutions. The main ministries that are responsible for the development and implementation of resource policies are:

- Ministry of Environment and Water in Bulgaria

<http://www.moew.government.bg/>

- Ministry of Economy, Energy and Tourism in Bulgaria
<http://www.mi.government.bg/>
- Ministry of Agriculture and Food in Bulgaria
<http://www.mzh.government.bg/mzh/bg/Home.aspx>

In Bulgaria, all official documents are elaborated and discussed between institutional groups. Participation depends on the topic; for example Senior Environmental Expert Council includes stakeholders from the Ministry of Environment and water, Ministry of Regional development and Public works, Ministry of Agriculture and food, Ministry of Economy, Energy and Tourism and other.

As general practice, industry organisations (e.g. trade associations, industry chambers, etc) are invited to contribute views.

8. Selected policy instruments or initiatives on resource efficiency presented in more detail

The following financial mechanisms may be applied in Bulgaria for increasing energy efficiency:

- Voluntary agreements
- Contracts with guaranteed results (ESCO)
- Financing from Energy Efficiency Fund

Voluntary agreements aim to encourage the reduction of energy consumption through:

- The provision of energy services and/or perform activities and energy efficiency measures from the energy traders,
- Energy efficiency audit and/or taking appropriate measures by the end users of energy.

Voluntary agreements may be concluded between the Executive Director of the Energy Efficiency Agency and:

1. The owners of buildings, with the exemption of buildings under public and/or municipal property,
2. The owners of industrial systems,
3. Energy traders.

Contracts with guaranteed results (ESCO) aim at implementing activities and measures to improve energy efficiency in buildings and/or industrial systems, leading to energy savings for end users. This is achieved by funding investments by the ESCO, which subsequently will be paid back parts of the money saved through realised energy savings.

The contractors under the contract could be end users of energy, and performers – companies providing energy services.

Energy Efficiency Fund is financing the implementation of activities and measures for increasing energy efficiency, with the exemption of those funded by the state budget.

The funds are spent on:

- Financing of projects for development of energy efficiency,
- Guarantees on credits from financial institutions, allocated for projects for energy efficiency.

Main preferences, provided by the Energy Law to encourage the combined generation, are related to:

- Purchasing the electric power produced by the combined heat and power plants,
- Calculating the price of the electric power from cogeneration,
- Building combined heat and power plants,
- Connecting combined heat and power plants to the transmission and distribution networks.

The public provider of electricity, respectively the end suppliers of electricity are required to purchase the entire quantity of electricity from high efficiency cogeneration of heat and electricity, registered with a certificate of origin, except for amounts which the producer uses for his own needs or with which participate in the free market for electricity.

Calculating the price of the electric power from cogeneration:

- Mandatory purchasing of the electric power from high efficiency cogeneration on preference prices shall be applied for a period of 8 years, as from 8.09.2006, for the existing producers
- For electricity producers, which begin high efficiency cogeneration after 8.09.2006, the eight years period shall pass from the date of the beginning, but no later than 31.12.2011
- Preference prices for purchasing electricity, produced by combined mode from plants, built up to 31.12.2011 r. are valid to 31.12.2019

New installations with capacity over 5 MW and using natural gas shall be constructed on the principle of combined heat and power generation.

The electricity suppliers and the electricity distributors are required to integrate all plants producing electricity from high efficiency cogeneration with installed capacity up to 10 MW.

The extension and reconstruction of the grids to integrate the plants are the responsibility of the supplier and respectively the distributor company.

The Law on Renewable and Alternative Energy Sources and Biofuels determines the following objectives:

- Promote the development and use of technologies for production and consumption of energy produced from renewable and alternative energy sources and consumption of biofuels;
- Diversification of energy supply;
- Increasing the capacity of small and medium producers of energy from renewables and alternative sources and producers of biofuels;
- Creating conditions for sustainable development at local and regional level;
- Environmental protection.

The following mechanisms are provided for promotion of renewables:

- Priority accession of each producer of electricity from renewable and alternative sources to the transmission / distribution system;
- Ensure the twelve year period of mandatory purchase of electricity produced from new power plants using renewables;
- Preferential prices.

The following schemes for funding projects for building power plants using renewable energy sources are available:

- Specialized credit lines under the scheme "public-private partnership" - partly financed through the International Fund "Kozloduy";
- Credit line for energy efficiency and renewable energy sources in Bulgaria;
- National Strategic Plan for Rural Development 2007-2013;
- Enterprise for management activities in environmental protection;
- Joint Implementation Mechanism under Art. 6 of the Kyoto Protocol.

The National scheme for green investment has an initiative for funding of project ideas by the National Trust Eco Fund.

9. Topics of interest and information needs for follow up work

- Comparison of resource efficiency policies and the way they are implemented in different countries (sharing of good practices)
- Different integration of resource efficiency into other policy areas
- Need for a structured way to collect information on European resource efficiency policies
- Discussion of the policy effectiveness of different resource efficiency policies
- Concrete and quantitative targets to be set in the area of resource efficiency

10. References

10.1 Facts and figures about the country

[1] Eurostat, 2011 [demo_pjan]

http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=demo_pjan&lang=en

[2] CIA World Factbook (2009 est.)

<https://www.cia.gov/library/publications/the-world-factbook/index.html>

[3] Eurostat, 2011 [nama_gdp_c]

<http://appsso.eurostat.ec.europa.eu/nui/show.do>

[4] Eurostat 2011 [tsieb010]

<http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&language=en&pcode=tsieb010&plugin=0>

[5] World Bank, Migration and Remittances Factbook 2011

<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTDECPROSPECTS/0,,contentMDK:21352016~pagePK:64165401~piPK:64165026~theSitePK:476883,00.html>

[6] European Commission 2008

http://europa.eu/abc/12lessons/key_dates/index_en.htm visited December 15, 2008

[7] Eurostat, OECD and Total Economy Database

DMC data from Eurostat Database, Material Flow Accounts, and OECD, Population data from Eurostat Database, Population, and The Conference Board — Total Economy Database, September 2010. www.conference-board.org/data/economydatabase/

[8] Eurostat

Material flow accounts, env_ac_mfa, uploaded June 2010

[9] The Conference Board, Total Economy Database, Eurostat

GDP data from The Conference Board — Total Economy Database, September 2010, www.conference-board.org/data/economydatabase/ ; DMC data from Eurostat Database on Environmental Accounts, and OECD.

[10] Eurostat

Energy statistics, uploaded Oct 2010

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10.2 Resource Efficiency Policy References

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National Environmental Strategy 2009 – 2018

http://www.moew.government.bg/recent_doc/strateg_plans/2009/MOSV_Strategia.doc

National Programme for Action on Environmental and Health, 2008-2013

http://www.moew.government.bg/recent_doc/strateg_plans/NPDOSZ.doc

2007 Project on Sustainable Development Strategy of the Republic of Bulgaria

http://www.moew.government.bg/recent_doc/strateg_plans/SDS_31_07_2007_last_version.doc

National Programme for Waste Management for 2009-2013 period

http://www.moew.government.bg/recent_doc/waste/NWMP_2009-2013_FINAL.doc

National Strategy for Biodiversity Conservation (adopted in 2009, updated in 2010)

http://chm.moew.government.bg/pdfs/bul/Nat_Strategies/Obsht-End-File.doc

National strategy for developing and managing the water sector by 2015

http://www.moew.government.bg/recent_doc/waters/Strategia%20Voden%20Sektor-new.pdf

National strategic plan for stage by stage reduction of biodegradable waste for disposal. (2010 - 2020)

http://www.moew.government.bg/3E703B56-232B-4EA4-8008-631EAE495F59/FinalDownload/DownloadId2B139E8F7F8D6F040F7152B56FDF2E63/3E703B56-232B-4EA4-8008-631EAE495F59/recent_doc/waste/biowaste_strategy_2010.pdf

Energy Strategy on Bulgaria until 2020

<http://www.mi.government.bg/about/osndoc.html?id=299341>

National Action Plan for Renewable Energy (2010)

http://www.mee.government.bg/ind/doc_eco/REAP_0611.07.2010%20-%202.pdf

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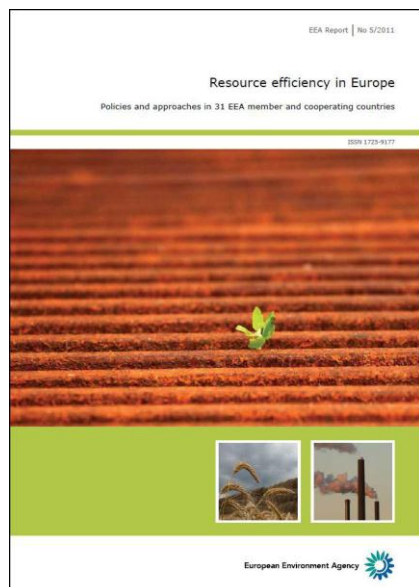
http://europa.bg/upload/docs/NOFAP_FINAL_bg.doc

National Programme for Fisheries and Aquaculture 2009-2013

<http://europa.bg/upload/docs/NPRA.pdf>

Programme for priorities in the Development of Bulgarian Agriculture for 2009-2013

http://europa.bg/upload/docs/2009_2013_633652852993125000.pdf



Resource efficiency in Europe

Policies and approaches in 31 EEA member and cooperating countries

Further information about resource efficiency policies, including the analytical report and thirty-one detailed country profiles, are available on the EEA website:

<http://www.eea.europa.eu/resource-efficiency>

Selected examples of resource efficiency policies, instruments or targets presented in the thirty one detailed country profiles

