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АГЕНЦИЯ ПО ЕНЕРГИЙНА ЕФЕКТИВНОСТ

ENERGY EFFICIENCY AGENCY - BULGARIA

## **ACTUAL STATE OF THE ENERGY EFFICIENCY, MONITORING AND VERIFICATION IN BULGARIA**

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## Bulgaria

Territory 110 910 km<sup>2</sup>

Population: 7.6 millions

**Primary energy intensity :**

~ 75% > average EU level

**Bulgaria (2008) - 0.28 кое/€2005p**

**EU - 0.16 кое/€2005p**

**Final energy intensity :**

~ 40% > average EU level

**Bulgaria (2008) - 0.14 кое/€2000;**

**EU - 0.10 кое/€2000**

**Ratio:**

**Final to Primary Energy Consumption : 0.47**



## Bulgarian Energy Efficiency Agency at a glance



- Created as National institution in 1997
- Since 2002 – Executed agency under Minister of energy and energy resources
- 70 employees
- 2 Million € annual turnover
- Basic function - Implementation of state policy in energy efficiency
- Organizational structure:
  - ✓ Directorate for programs, projects and international cooperation
  - ✓ Directorate for control and information
  - ✓ 13 regional units
- **Now the Energy Efficiency Agency is a legal body and has a status of an executive agency under the Minister of Economy , Energy and Tourism.**

## Energy Efficiency: Main Provisions in Legislation

- **Energy Efficiency Strategy** (to be adopted by National assembly) and **Action plans** (adopted by the Government);
- Establishment of **national** and **individual** energy saving **targets** for energy dealers and large energy consumers;
- **Buildings**: Owner's (over 1000 sq.m useful floor area) **obligation for certification**;
- **Enterprises**: Large energy consumer (over 3000 MWh/year) **obligation for audits** and implementation of the prescribed EEI measures ;
- **ESCO financing**: ordinance for state and municipal buildings;
- **Energy Efficiency Fund (energy traders contribution)** ( EUR 30 Mln);
- **Inspections** of hot water **boilers** and **air-conditioners**;
- **Energy managers** in large energy consumers and large building;
- **Long-term agreements** (EE Law);
- **Certificates** for proving energy savings (future introducing of white certificates scheme);
- **Regional Energy Efficiency Centers Establishment**;
- **National energy efficiency information system** .

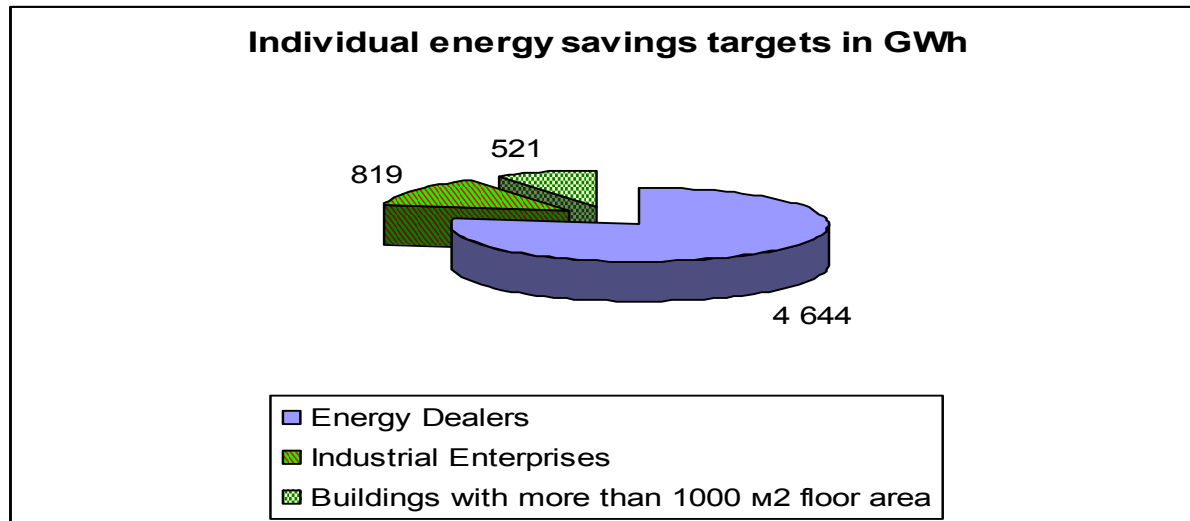
## Energy Efficiency: Main Foreseeing Activities and Measures

### Short list:

- **Extending of energy services, including energy efficiency measures;**
  - ✓ Additional liberalization of energy market, especially in area of energy services supplying.
  - ✓ Developing of a special market for energy services: **tradable white certificates.**
  
- **Facilitate investment in public sector;**  
(norms, audits, certification, **ESCO**-contracting)
  
- **Binding of energy audits with implementation of the recommended energy efficiency measures;**  
(Requirement for access to the resources of more favourable financing.)
  
- **Support for introducing energy managers in large energy consumers;**  
(Training)
  
- **Development of information system for energy efficiency**  
(According to Directive 2006/32/EC)

## National indicative energy savings targets

1. National target to 2016 is defined as a share of the final energy consumption
2. National target is indicated in the National Action Plan and it is allocated as individual targets between the obligated persons , which are separated in three groups as follows:
  - Energy Dealers;
  - Owners of buildings with more than 1 000 m<sup>2</sup> useful floor area;
  - Owners of enterprises with annual consumption more than 3000 MWh
3. A list of obligated persons and their individual targets is being published in the National Action Plan and has to be actualized every three years ([www.seea.government.bg](http://www.seea.government.bg) ).



## Control Activities - generally

1. Control on **the owners of objects** with high energy consumption
  - ✓ Control on the owners of **buildings and industrial enterprises** for the establishment of the individual targets for energy savings and energy savings measures implementation
  - ✓ Control on the **energy efficiency management**. The management should be implemented by the obligated persons
  - ✓ Control on efficiency of the boilers and air-conditioning systems exploitation
2. Control on the **quality of the audits**, done by registered companies for buildings and enterprises auditing
3. Control on the **energy dealers** for individual energy savings targets implementation and their obligations connected with the provided energy services

## Control Activities - generally

1. Subjects of the control – owners of :

- ✓ **Municipal and State buildings with more than 1 000 m<sup>2</sup> floor area** 300 obligated persons
- ✓ **Private buildings with more than 1 000 m<sup>2</sup> floor area** > 1 000 obligated persons
- ✓ **Enterprises with annual energy consumption more than 3 GWh** > 230 obligated persons
- ✓ **Boilers with power more than 20 kW** > 1720 obligated persons
- ✓ **Air-conditioning systems with power more than 12 kW** > 180 obligated persons

2. Subjects of the control – **energy dealers:** > 50 obligated persons

3. Juridical persons or companies for energy efficiency auditing , registered in EEA :

- ✓ Buildings auditing: > 190 obligated persons
- ✓ Enterprises auditing: > 45 obligated persons

**TOTAL:** > **3 715 obligated persons**



## Control on the quality and the amount of the implemented measures

Last but **substantial control on**

- The **improved characteristics of the object.**
- The **individual energy savings targets** implementation.  
*(The implementation of the individual energy savings targets has to be proved by **Energy savings certificate**. The standard methods, developed by the auditors and approved by EEA, are being used.)*
- This control is assisted by the **energy auditing companies.**



## Obstacles and possibilities for control quality improvement

- **Normative:** frequent changes, complicated putting in practice, lack of clearness and needs of interpretation, distinction of the responsibility.
- **The qualification of the personnel:** higher requirements for appointment, increasing of number of control audits and control verifications, lower dependence on external education.
- Permanent access to the software applied at the audits or development of own software.
- Widely use the Informational system possibilities and the territorial teams.

**Example for control on the enterprises audits: extent of the measure implementation and actually achieved effect, settled after control audits**

<b>Total audited annual energy consumption</b>	<b>Expected effect in the reports</b>	<b>Extent of the measure implementation</b>	<b>Actual energy consumption decrease</b>
<b>211 ktoe/year</b>	<b>33 ktoe/year</b>		<b>5 ktoe/year</b>
	<b>16%</b>	<b>20 %</b>	<b>1,5 %</b>



## **Bulgarian legislation concerning monitoring and control of requirements for electrical appliances**

- Ordinance on labeling of household appliances on the energy consumption and other resources - in force from 11.08. 2006
- Implementation of Commission Regulation (EC) No. 244/2009 of 18 Mar. 2009 implementing Directive 2005/32/EC of 6.07. 2005 with regard to ecodesign requirements for household lamps
- Requirements on the energy efficiency of the office equipment to the Public Procurement Law



## Control bodies

- Commission for Consumer Protection
- Bulgarian National Audit Office
- “Internal Audit” Directorate in Ministry of Economy, Energy and Tourism



## Types of CONTROL

### 1. Prevention control

- Introduction on the consumer and economic operators with the requirements in the Ordinance for labeling, advertising campaign and salings on energy efficiency appliances in the big trade chains.
- Publishing on brochures, advertising and informational campaigns.



## Types of CONTROL

### 2. Active control

The inspectors from the Commission for consumer protection performed control on the implementation of the ordinance for the labeling. If the control on the documentation is not enough , there have to be fulfilled technical control from accredited laboratory.

## The sales on energy efficiency appliances in Bulgaria is growing up

### ■ 2004

- ✓ Refrigerators class A++ 0%
- ✓ Refrigerators class A+ 9,6%
- ✓ Washing machines class A 20,0%
- ✓ Driers class A 5,5%

### ■ 2010 г.

- ✓ Refrigerators class A++ 3%
- ✓ Refrigerators class A+ 13%
- ✓ Washing machines class A 70%
- ✓ Driers machines class A 10%





**Thank you!**

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**Executive Director**

**Energy Efficiency Agency - Bulgaria**