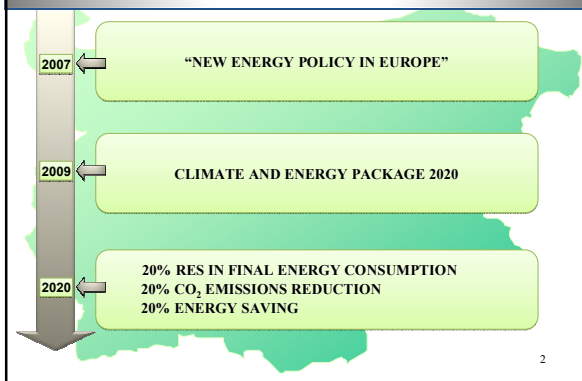


“Micro-energetic and Energy Efficiency – Practical Benefits for the Industry”

/ starting discussions /

Kiril Zhelyazkov - BIA
Belgrade, June 2010

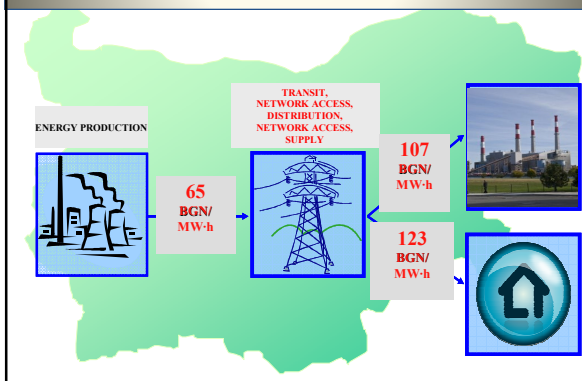
LOW CARBON ENERGETIC- EUROPEAN POLICY:



2010 - ENERGY MIX IN BULGARIA

SOURCE	PRICE in BGN/MW-h
Nuclear Energy	42
Coal-Fuelled Thermal Power Plant	85 - 95
Combined Production	104 - 188
Wind Turbines	145 - 185
Solar Panels	758 - 823
Average	65

2010 ENERGY PROFILE IN BULGARIA – LOSSES THROUGH THE NETWORK



2010 AND BEYOND - RECOMMENDATIONS OF BIA TO THE BULGARIAN INSTITUTIONS

- DEVELOPING AN ENERGY EFFECTIVE USE PROGRAMME;
- IMPLEMENTING MECHANISMS FOR SUPPORTING **DISTRIBUTED MANUFACTURING OF ENERGY (MICRO-ENERGETIC)**;
- FOSTERING COMPETITIVENESS AMONG TECHNOLOGIES FOR ENERGY PRODUCTION BY RES (COMPETITION IN PRICES FOR MW.h, GREEN CERTIFICATES ETC.).

Energy Efficiency – priority for the Bulgarian Government

- Increasing energy efficiency at all levels;
- Measures for an optimization of the energy consumption, especially at the companies' level;
- Developing of the national policy and integrate it within the European policy in the field;
- Strengthen the correlation between **competitiveness, security of the energy supply and environment protection.**

The challenges towards the Bulgarian industry – 2010 and beyond

- Old and energy intensive technologies and equipment;
- Energy audits of the industrial systems are at the initial stage;
- Full potential for developing of the industrial energy efficiency is not estimated yet;
- Measures for energy saving in industry are at the beginning.



Projects for energy efficiency in the Bulgarian industry – experience till 2009 г.

Branches and	No	Investments (Euro)	Savings (Euro)	Average pay back period (years)
Chemistry	3	1 761 111	616 520	5.16
Electrical equipment	17	1 618 813	508 922	3.61
Food and beverage	27	3 566 164	895 676	3.29
Clothes and shoes	2	219 991	99 996	1.10
Textile	2	578 271	205 926	3.56
Total	51	7 444 350	2 331 240	3.29



Micro – energetic – tendencies and chance for the industries

- New technologies and innovations into the practice;
- New technical decisions (Micro-turbines, fuel-sells, etc) – in use in hotels, schools, hospitals, bancs, small enterprises;
- “The small is beautiful” means – small energy sources which are clean and efficient.



Micro-energetic and environment protection

- From traditional coal power stations in Bulgaria – 1 KWth means – 1 kg CO₂;
- Micro – electrical generators – emissions of CO₂ less quantity with 70 – 100 %.

Potential advantages for the industry

- Possibility to implement “module by module”;
- Short time for implementing in the practice;
- Variety of sources and market independence;
- Flexibility and reliability;
- Minimal losses in the network;
- Local and public control, transparency;
- Decreasing of the emissions in the environment.

Necessity of market stimulus for the Micro-energetic

- Improving of the technical standards;
- More efficient financial rules;
- Promoting the new projects scheme for local energy production, especially for own needs of the manufacturers (SMEs);
- Boosting the innovations in the field;

Micro-Energetic and Lisbon Strategy – chance for innovations

- New smart digital network for the energy management;
- Flexible connections between all “players” in the energy system – small, middle and big;
- High efficiency of the energy flows and optimising the efficiency of all energy producers;
- The new model of the energy system– de-centralized, ierarchycal, market based.

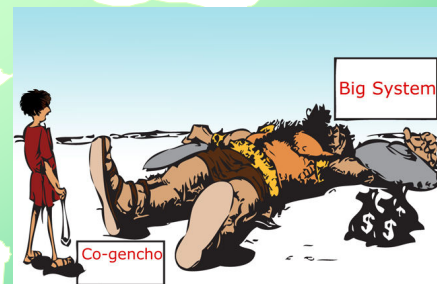
Partnership

- Bulgarian Industrial Association;
- Agency for Energy Efficiency
- Producers and industrial consumers of the energy sources;
- Ministries and other state institutions;
- Universities, business associations, scientific organizations, etc.

David and Goliat – the fighting



“Co-gen” and Goliat – the VICTORY



“Micro-energetics and Energy Efficiency – Practical Benefits for the Industry”

/ starting discussions /

Kiril Zhelyazkov – BIA

Tel. 02 / 93 209 59

E-mail branch@bia-bg.com