Policy Position of the Association of Bulgarian Energy Agencies on the Crisis in Bulgaria's Energy Policy

Bulgaria is undergoing a time of severe social unrest, at the heart of which are low incomes and high prices of electricity and heating for the general public. For a quantitative understanding of the drama of these findings, we note that the price of electricity for households, calculated by the purchasing power parity (PPP), is 2.42 times higher than that in the U.S. and 59% higher than the average for the EU- 27. For businesses, the price of electricity in terms of PPP is 3.8 times higher than that in the U.S., 2.1 times higher than the average in the EU-27 and 58% higher than that in Russia.

The situation today has resulted from decades of misguided economic and energy policies. As a result, of all EU countries, Bulgaria is the poorest, the most dependent on energy imports (60% in 2011) and most energy-intensive (4.47 times the average for EU27, according to Eurostat).

There is a need for a new energy strategy and a new policy aimed at rejection of the traditional extensive development of the electrical energy industry, the optimisation of the energy balance and an increase in energy efficiency. The new policy can succeed only through transparency in governance and an objective system for evaluation and monitoring.

We at the Association of Bulgarian Energy Agencies (ABEA) are convinced that seeking "quick" decisions in this situation can lead only to partial and temporary results, and we therefore propose that decisions be made on the following actions:

1. Abandonment of the extensive development of the electrical energy industry.
Our studies, covered in detail in the only book dedicated to the development of the electrical energy system between now and 2030, indicate that rejection of the extensive expansion of the electrical energy system and a transition to "development based on common sense" can save approximately € 14.4 billion by 2020 and € 16.6 billion euro by 2030. Estimated energy needs, according to independent experts, including Bulgarian energy agencies, strongly suggest that until 2030, no new production facilities with the exception of some manoeuvering facilities, are needed for the country.

2. Optimisation of the energy balance.

Based on relevant analysis, structural changes to improve energy efficiency and air quality are the most urgent measures to be implemented in a transition towards the more efficient use of national resources (in accordance with the EU Roadmap to a Resource Efficient Europe), in the process creating energy prices that are acceptable to the consumer.

Heating, which accounts for 42.4% of the final consumption of energy carriers and 30% of electricity consumption for heating, has a dominant role in the energy balance of the country: over 50%. The heating market now, in addition to heat from district heating companies, offers gas oil to public buildings (the most expensive fuel in the poorest EU country!) and electricity to households and businesses (the most expensive energy after gas oil). Electricity holds a share of 26.8% in the energy balance of Bulgaria versus an average of 17% for the European countries. Electric energy is an inefficient energy carrier for heating due to losses in generation, transmission and distribution. By the time it reaches the user, its efficiency is only 20-22% and should be used for heating only as a last resort – only with highly efficient systems and appliances.

Reducing the share of heating oil and electricity in the heating mix, through maximum use of the available biomass resources based on innovative and efficient technologies, is the key factor in optimising the energy balance of the country. Heating using "modern biomass" offers one of the lowest prices for households, municipalities and businesses. Technologies have been developed and are currently available on the market. Bulgaria is rich in biomass, which it must use wisely and efficiently. Over 3 million tons of firewood (about 600,000 t.o.e.) are being burned yearly for heating at an efficiency coefficient below 40%. The forecast of the Executive Forest Agency for the energy potential of wood biomass by 2020 is about 5.5 million tons (1,090,000 toe).

Bulgarian cities are facing a major challenge: coping with increased levels of particulate matter (PM) and nitrogen dioxide or paying fines for excessive pollution. One of the main factors in this dilemma is the primitive way of heating, including inefficient combustion of coal, briquettes and raw firewood. Biomass and other renewable energy sources (RES) represent the solution, offering reductions in both particulate matter in the atmosphere and greenhouse gas emissions, as well as improved energy efficiency.

ABEA experts have identified a number of measures that together can reduce pollutants by 60 percent, decrease energy costs and improve the quality of life. If we focus on advanced biofuels and highly efficient boiler systems and plants, measures include:

- Setting up BioRegions to implement policies for energy independence of municipalities through the rational use of municipal forests and other local resources to meet the energy needs of the municipal buildings, rather than using gas oil, coal and electricity;
- Utilisation of local biomass and setting up of logistic centers for the production and sale of advanced biofuels, with the participation of municipalities and businesses (public/private partnerships);

- Replacement of traditional stoves and boilers that use raw firewood, low-quality coal and coal briquettes for domestic heating. Widespread use in the cities of stoves and boilers based on advanced biofuel -- pellets, chips, eco-briquettes, etc.;
- Controls on fuel quality;
- Gradual replacement of electric water heaters with solar collectors for hot water during the summer months, and the use of biomass for heating and hot water during the winter months;
- Promotion of the construction of decentralized energy: biogas plants utilizing local agricultural (plant and animal) refuse, biodegradable municipal waste, waste from water treatment plants, etc.; small biomass plants designed to meet local heating needs.

For us, these are the priority measures, because in many European countries they have long been widely implemented. In Germany, for example, 7,000 biogas plants produce electricity exceeding that generated by the Kozloduy NPP, and farmers there have become power engineers!

What in particular can be done now for and in the Bulgarian municipalities?

- Recognition of heating as an important part of the energy balance and quality of life of Bulgarian citizens;
- Suspension of the preferential arrangements for buying gas oil and other highly polluting sources of heating in public buildings and households;
- Introduction of financial and regulatory incentives for the implementation of efficient heating systems;
- Support for the end-user for RES-based heating through the restructuring of public funding provided by the denial of extensive development of the electrical energy industry by attracting investments to fuel switching, modernisation of the heating equipment in public and residential buildings, and mass utilisation of wood and agricultural waste biomass and biodegradable municipal waste; and
- Setting up a favourable environment for business development in the field of highly efficient energy technologies and decentralized systems, while reducing administrative barriers and increasing institutional support and incentives for business.

3. Energy efficiency is the third strategic goal for a way out of the crisis, for enhanced competitiveness of the economy and for releasing the consumer from corruption in the energy industry.

In all developed countries, such a policy is in place all along the whole chain of production, conversion, transmission, distribution and consumption of fuels and energy. Bulgaria, a country poor in fossil energy resources and heavily dependent on imported energy resources, still has no national energy efficiency strategy and no specific policy for a low-carbon energy industry and economy. It is not hard to see why the development and implementation of such a policy has constantly been postponed.

4. Transparency of indicators and energy industry management.

Energy policy and practice have always been nontransparent and manipulative for Bulgarian citizens.

- Let us recall the decades of manipulative forecasts of electrical energy needs: in 2005, for example, to demonstrate the need for the construction of "Belene" NPP, electrical energy needs were predicted to amount to 50 TWh in 2013, and 75 TWh in 2030. The actual gross electricity consumption in 2012 was, as we predicted, about 37 TWh, and it will remain almost unchanged until 2030. Manipulative forecasts serve corporate and foreign interests, but lead to huge costs to be borne by the consumer.
- According to the 2012 newsletter issued by the Ministry of Economy, Energy and Tourism (MEET), Bulgaria's energy intensity is 0.703. In the EU sustainable development indicators, energy intensity is measured with reference to the Gross Domestic Product (kg.o.e/1000 EUR). Eurostat data on the intensity of the EU member states show that Bulgaria is 4.47 times more energy-intensive than the EU - 27. The intensity of 0.703 mentioned in the newsletter obviously aims at pushing energy efficiency beyond the priority tasks for the country and at continuing the extensive development from the perspective of energy supply.
- The MEET newsletter claimed, "Nuclear energy is treated as a local source and it significantly contributes to the improvement of energy independence. Bulgaria's energy dependence is slightly lower than the average for member states." This subdued and manipulative statement distorts one of the indicators of sustainable development: the country's energy dependence. (Actually, nuclear power is not a local source, and therefore Bulgaria's dependence on energy imports is high through the years -- from 72% to 60%. It is no secret whose interests are served by this manipulation.)

A long list can be made of the energy myths used to create "zombie" society at large and the ordinary citizen in particular. We believe that manipulating the minds of citizens and deviations from European governance practices and indicators are crimes like any other crimes in the energy industry. If there is no punishment, there are no guarantees for change!

Our position is that a new energy policy is urgently needed as a condition of the transition to sustainable development of the country and to the well-being of its citizens.