

MAIN ASPECTS OF THE ECOLOGICAL POLICY OF THE EUROPEAN UNION AND ENERGY RESOURCES IN BULGARIA

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Abstract: *European environmental policy faces major challenges arising from the interaction between public production and nature. The challenge for us, today's people, is to create material goods without disturbing eco-equilibrium. The main reasons for the emergence of environmental policy is conditioned by objective factors, the most important of which are: climate change, resource depletion in the face of rising global energy needs, price level dynamics, problems and environmental damage from the development of the classical technologies. One of the possible solutions to this problem is the application of new sources of energy, such as renewable energy sources.*

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European ecological policy faces major challenges arising from the interaction between people's modern lifestyles, public production and the continuous pollution of nature from various sources. The biggest cause of pollution is production in all its aspects. It takes place on a global scale, has a devastating impact on nature, and so the environmental problem is born. According to G. Mateev and Iv. Pavlov "modern ecology also intensively studies the problems of human interaction and the biosphere. Today ecology in biological terms is understood as a science of the environment and causal relationships. "[1] A wider interpretation in this direction is made by RA Novikov and AK Khiritsky [2], who conclude that the contradiction "Man - society - nature" acquires a global character. The result of this contradiction is also the environmental problems associated with the formation of the ozone hole, acid rain, greenhouse effect, radioactivity and others. Therefore, the challenge for us, today's people, is to create material goods without disturbing eco-equilibrium. The main reasons for the emergence of environmental policy are: climate change, depletion of resources against the backdrop of rising energy needs, the dynamics of price levels of energy resources, problems and environmental damage from the development of classical technologies.

In our opinion, one of the reasons of the ecological problem is the development of the economies of the individual countries, the constant pursuit of raising the living standards of the people, and this inevitably leads to an increase of the harmful environmental factors. By nature, this phenomenon is complicated and requires a deep and comprehensive scientific understanding, but not only at national and European scale. It was not a coincidence that European and environmental policy was created. Its main framework is formed by the following guidelines and documents [3]:

- ✓ **Environmental Action Programs** - in 2013 The Council and the Parliament of Europe adopted the Seventh EU Environment Action Program for 2020, entitled "Prosperity within our planet." Building on several recent strategic initiatives (the Resource Efficiency Roadmap, the Biodiversity Strategy for 2020 and the Roadmap for moving to a competitive low carbon economy by 2050), it sets nine priority objectives and the most important ones are: nature conservation, greater environmental sustainability, sustainable resource-efficient and low-carbon growth, and the fight against environmental risks to health. The program also highlights the need for better implementation of EU environmental law, the latest scientific achievements, investment and the integration of environmental aspects into other policies.
- ✓ **Horizontal strategy** - this is the EU's most recent strategy for smart, sustainable and inclusive growth "Europe 2020", which is a priority for the development of the RES sector. Its promotion is based on the cost-effectiveness principle of EU co-funded programs for specific projects to increase European added value. The Cohesion Fund for RES 2007 - 2013 is from two sources -

the European Regional Development Fund and the Cohesion Fund.

- ✓ **Environmental impact assessment and public participation** - the basis for such an assessment was the Aarhus Convention. It was signed in 1998 by the EU under the aegis of the United Nations Economic Commission for Europe (UNECE) and later ratified by it.

According to the Convention, "Public Participation in Decision-Making" [4] is one of the three environmental rights that are guaranteed to the public. Other two rights are : the right of access to environmental information available to public authorities (for example on the state of the environment or human health if affected by the state of the environment) and the right of access to justice when the other two rights were not respected.

- ✓ **International cooperation on the environment** - maintains partnership agreements in the EU and cooperation strategies with a number of countries and regions. Such is, for example, the European Neighborhood Policy (with the Eastern and Mediterranean countries). It is used as a means of solving problems occurring at the external borders of the EU, incl. related to the environment - water quality, waste management, air pollution.

Environmental policy and efforts to combat climate change are becoming increasingly important both in terms of energy to reduce greenhouse gas emissions and to place greater environmental responsibility on companies without compromises their competitiveness. The basic principles on which it is based, according to UNESCO's normative documents, are the following [5]:

- Environmental protection and reproduction is a continuous, timeless process. It is complemented and enriched at every stage of the development of society;
- environmental policy is a strategic direction in the general policy of the state;
- environmental protection and reproduction takes place in a variety of forms of ownership;
- Conservation measures are complex in nature, using the latest advances in science and technology;
- environmental policy uses for its purposes modern monitoring and information systems;
- Environmental policy is the result of international cooperation in the field of environmental protection.

Our conviction is that the implementation of the European energy policy in relation to the wider use of renewable energy sources (RES) or so-called "green energy" which according to the European legislation is:

- Geothermal energy.
- Wind energy.
- Solar energy.

- Biofuels.
- Co-generators.

By their very nature, RES is a resource for the production of material goods from natural sources such as sun, wind, water and natural waste, which carry the source directly into the energy system product. They are multifunctional and are used both for commercial production and for the individual household. The main purpose of the RES sector is the production of non-traditional energy, whose main feature is the resilience of resources, guaranteeing the country's security and reducing dependency and import.

In ZEWE [10], the same term is also defined as "production sites" for electricity, heat and cooling. The authors Bliznakov, Z. Gargarov and N. Marinova define as renewable "these resources, whose current scales can be sustained or even increased, despite the constant or even growing consumption. These are resources that are either virtually inexhaustible (sun, water, air) or biologically reproducible (forests, game, plants)" [11]. For other authors, "RES are existing environmental energy flows and have a continuous and recurring character." [12] That is to say the renewable energy sources are indigenous inexhaustible resources and are a priority of national energy policy. Our belief that more massive use will make it possible to tackle most of the existing environmental problems for the countries of the European Union, and that will certainly lead to better sustainability and stability for European economies as well.

In this regard, the main ecological problems in our country can be identified:

- Air pollution by increased emissions of sulfur dioxide, nitrogen dioxide and dust, the largest source of these harmful substances being energy production [6] According to a Eurobarometer survey conducted in the member states of the European Union, "61% of Bulgarian citizens are of the opinion that the air quality in the country has deteriorated over the last 10 years" [7]. By air quality, our country ranks at an average level in the European Union.
- Poor waste management. In the structure of generation of industrial waste, the largest share belongs to the TPP and the chemical industry.
- Industrial pollution, due to the lack of compliance with environmental requirements years ago in the construction of a large part of the enterprises.
- Other environmental problems are soil pollution, erosion, weathering and the urban environment.
- They all have a negative impact on human health. These problems are difficult for us to solve, because at present, the EU economy, including Bulgaria, is still heavily dependent on fossil raw materials and fuel imports, but this tendency is expected to change in the coming years because: "The EU is a leader in renewable energy technologies. It holds 40% of the world's renewable energy patents and in 2012 almost half (44%) of the world's renewable energy production capacity (excluding hydroelectric power) is located in the EU. The EU's renewable energy sector currently employs around 1.2 million people." [8] Evidence of positive changes is the increase in the share of renewable energy in gross final energy consumption. According to Eurostat [9], renewable energy production in the EU is based primarily on biomass (46%) and water (16%), but also on renewable sources such as solar and wind power. In this regard, the most important conclusions are:
- The use of inexhaustible energy in the environment is necessary to provide mankind with energy while preserving the ecological equilibrium of the earth.
- Renewable energy mainly focuses on local stocks. Bulgaria has all the necessary natural resources and can develop this type of industry that enables local economic, social and infrastructure problems to be solved, increases energy regions, creates new

high-tech productions and jobs. In this regard, the most important conclusions are:

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- The European path of Bulgarian energy is closely related to renewable energy, which is defined as a complementary energy. Our country is implementing the EU 20/20/20 Program, which foresees a 20% reduction in carbon production by 2020, 20% of the electricity produced from renewable energy sources and eco-technologies.
- The legislative regulatory framework is a basic prerequisite for the development of RES. Its disadvantage is frequent changes, which are a prerequisite for destabilizing the sector. The recommendations on the improvement of the regulatory framework are mainly focused on SEWRC and ASWER and generally refer to: reducing unnecessary bureaucratic procedures; improving independence; strengthening powers and responsibilities and cooperation with foreign regulators at European level.
- The aggressive policy of intensive sector development has led to the fulfillment of the national mandatory target of a 16% share of renewable energy (RES) in gross final energy consumption by 2020 by 2020. State protectionism linked to with compulsory purchase of energy from NEK at preferential prices, has created a number of problems such as the burgeoning construction of new capacities, a lack of a clear concept of transmission and distribution networks, a lack of vision of how and where construction should be restricted. Additional problems have arisen in the management of the electricity system, at the prices for the end user, in the substations' capacities, in the distribution of costs in the system, which negatively affects the competitiveness of the economy

We believe that European policy to support the deployment of renewable energy sources, despite rapid pace of development, will continue to be a necessary and still long process, will continue to be necessary and still a long process as there is no competitive internal energy market in the EU. EU governments need to work to phase out harmful and inefficient subsidies for fossil fuels that encourage excessive consumption and harm the environment.

The pace of economic development on a global and national scale and the dynamics of growing consumer awareness of clean technologies and energy will continually increase.

The reasons for this are: global trends for wider application of clean and renewable sources, the ever-decreasing global and national reserves of non-renewable resources as well as significant political support and increasing subsidies in this area, and the benefits to the public are indisputable!

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