THE ROMANIAN ENERGY STRATEGY FOR 2014-2020

LORENA POPESCU DUDUIALĂ
DR, « CONSTANTIN BRÂNCUŞI », UNIVERSITATEA DIN TG-JIU
E-mail : lorena_ucb@yahoo.com

Abstract:
In a context of increasingly globalized Romania's energy policy is implemented through changes and developments taking place at national and European level. In this context, Romania's energy policy should be correlated with similar documents at the European level so as to ensure our country's policy of European Union policy in the field. "National Energy Strategy for 2014-2020" represents significant progress in harmonizing the interests and priorities of EU policy in the field. Provisions explicit strategy focuses on three core objectives of EU energy policy, namely:
1) Strengthening the security of energy supply in the EU
2) Sustainable development
3) development of competitive markets as the main means of achieving objectives. They went bankrupt, while others have tried to overcome the crisis through loans or other strategies, such as layoffs, wage reduction or restriction markets. Anti-crisis measures governments have taken individually, to protect the national economy and collectively (at EU level).

Keywords: *energy strategy, unbundling energy solution, economic stability*

JEL Classification: *F01, F52*

1. Introduction

Due to peculiarities of the energy industry, all national governments found their total involvement in the energy sector as a normal practice.

These features are regarded as certainties for a long time, they are given by: the natural monopoly which is the transmission and distribution activities in the energy sector, which easily integrate vertically in the form of monopolies, the various activities; the essential role it plays for community energy or as primary resource, either as electricity, which is why he felt the need of a strict governmental control; The strategic nature of the sector for any economy of energy, particularly electricity, gas and in a lesser extent, oil.

When referring to energy policy brief Romania - EU member -for the period ahead, we must show that it had in view the national development plans and programs, commitments in the accession negotiations to the EU, but also relevant elements internally contained in the Lisbon Strategy, the Green Paper "A European energy policy sustainable, competitive and secure" in the new political strategy in the field recently presented by the European Commission.

As a member of the European Union, Romania supports reducing dependence on Russian gas and oil reserves by reducing energy consumption and exploiting alternative resources.

The energy strategy will pursue energy main objectives of the new policy - EU environmental objectives assumed by Romania.

The specific measures are defined efficiency assessments of markets and the level of prices, unfortunately superficial coal, natural gas and heat.

Enter the first strategic component for rural areas where 47% of the population lives, as well as public assistance for access to energy. Take into account some global developments in the field of increasingly dynamic in recent years.

The draft strategy has undergone a real public discussion. We can not fail to notice the weight far below international reliable estimates only 30% of investment in networks.

The measures and strategic provisions that do not encourage investment are:

The category covering security of supply are:

a) the disproportionate attention is paid to procure energy resources in the country by reducing imports and "rational management" of primary resources in the country to refurbishment and development. In Romania, modernization of the security contributes to more than reduce dependence on imports by increasing energy efficiency measures other than. This dependence is upon us, anyway lower than in most European countries and does not explain why much of the public discourse expresses concern at the increase in import prices by 5-10% and not the fact that the country uses for old power plants a unit of energy delivered twice as much gas than modern technologies.

b) As a rule, the targets are not substantiated by the results of studies transparent. The few analyzes of public discussion are removed and also ignored the study of development is minimal cost for Southeast European region, conducted by the European Commission and the World Bank Energy Community Treaty signatory states.

c) the possible investors shall be given the existence of abundant reserves of 75% of generating capacity, although the market shows convincingly that most of it is not viable, being uncompetitive.

d) The risks security of supply is generated and by starting with the privatization of inefficient power plants and further bankrupt policy of public spending and loans for activities that can not be defined as services of general interest in the meaning of EU rules.

2. The unbundling energy solution

Strengthening of competitive regional producers "should be based primarily on upgrading the capacities of the country and then through acquisitions and concessions abroad. Moreover, it is incomprehensible Transelectrica and Transgaz will purchase energy producers and primary sources abroad without ruining their operational neutrality in the internal market. The longer call in question and outsourcing maintenance and repair, a problem that seemed far exceeded Romania.

3. The new electricity generation capacity

According to studies carried out under the coordination of MEF, need to be refurbished during 2015-2020 hydroelectric plants with an installed capacity of about 1135 MW, are possible to retrofit the period 2015-2020, hydroelectric plants with an installed capacity of approx. 2417 MW, plus new hydroelectric projects established for the period 2020-2050, with an installed capacity of 759 MW, and other projects feasible in the same period with an installed capacity of 895 MW. These hydro projects add two projects to be carried out, namely CHEAP Tarnita with installed capacity of 1,000 MW and AHE Tisza, 30 MW.

Regarding thermoelectric groups, are expected to be built during 2014 - 2020 groups with an installed capacity of about 3,000 MW and will be discarded at the same time, groups with an installed capacity of about 2900 MW.

In the nuclear field, to be achieved two nuclear units, Units 3 and 4 of Cernavoda, with an installed capacity of 706 MW (600 MW commercially available).

If, by authorization, not assured sufficient electricity generation capacity, will hold tenders for the construction of new capacities, in accordance with Law No.13 / 2007 for electricity.

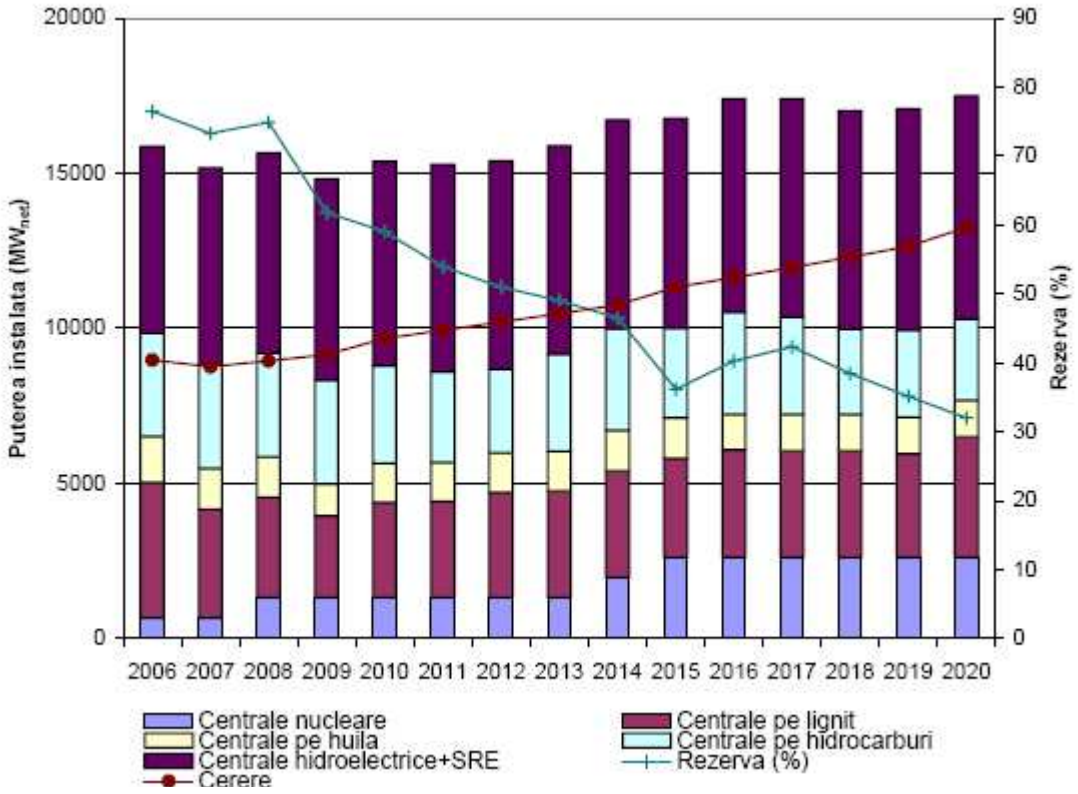
The study on the reorganization and development of the electricity production in Romania, in order to increase safety and competitiveness in the free market conditions required output forecast to cover national demand for electricity.

Note that the Romanian power network is interconnected with networks of neighboring countries (except Moldova and Ukraine) and the electricity market is open to cross-border trade. In those circumstances, cover peak consumption is achieved by market forces and not administrative regional, national.

Moreover, the European Commission proposed the creation of regional energy dispatchers to facilitate the cross-border electricity markets work and the sharing of power reserves.

Fig. 1

The evolution of installed capacity 2006-2020



***The source**: The EU energy strategy for 2014-2020*

Given the consistency of the main objectives of European energy policy (security of energy supply, competitiveness and environmental protection) and those of the national energy strategy, identified priority areas in the energy sector or related, to be oriented structural funding, and namely:

- Improving energy efficiency and environmental protection (about 55% of the financial allocation for Axis IV of POS CCE);
- The use of renewable energy (30%);
- The development of transport interconnection of electricity and gas to the European states (about 15%).

The main types of projects that could be implemented within Axis IV of POS CCE aims:

• the investment in plant and equipment to industrial operators, leading to energy savings;
• extending and upgrading electricity transmission networks, natural gas, oil and electricity distribution networks and natural gas in order to reduce losses and achieve safe and continuity of service of transport and distribution;
• realization of desulphurisation, low NOx burners and filters for large combustion units producing electricity and thermal energy contained in the Implementation Plan EC on the limitation of emissions of certain pollutants into the air;
• upgrading and building new capacities for electricity and heat production by harnessing biomass, micro-hydro, solar energy resources, wind, geothermal, biofuel and other renewable energy resources;
• interconnection transmission of electricity and natural gas to European networks.

The range of potential beneficiaries of these projects include both economic operators and local authorities. It is estimated that about 190 projects will be completed in 2014-2020, with the support of co-financing from structural funds in Axis IV of POS CCE. Romanian authorities aim is to ensure a higher degree of absorption of Structural Funds in these areas. The total co-financing Structural funds for these areas during the period 2014- 2020, 638 million is about. Euro at current prices.

4. The Energy Sector Forecast

The different forecasts on production of primary energy carriers in 2014-2020 indicates a moderate increase in total domestic production. During this period will double electricity production based nuclear fuel from entering the Unit

No. 2 of Cernavoda NPP and increase production from coal.

5. The options in the scope of supply

In rural areas there is a diversity of forms of renewable energy that can be used in power supply to these areas and urban areas:

• Biomass fuel is the main area, being used mostly for space and water heating and cooking. All fossil fuels from biomass and thus the biomass can be readily converted into solid, liquid or gaseous carbon-based. Wood biomass and atmospheric CO2 retained. In the future, large quantities of biomass fuel will be transformed into more convenient. For example, the biogas with 60% methane from manure or animal product, or directly in landfills can be used to generate electricity for cooking or lighting. Biogas fermenters residue is an excellent agricultural fertilizer.

• Hydropower. Micro - hydro base may be an option for rural areas not connected to the power network. To guarantee a continuous and constant energy supply must be protected headrace.

• Wind energy, which can be used including non-electrified rural areas, in tandem with energy storage systems. A wind farm with a capacity of 50 MW require a capital cost of about 37 mil. Euro and an annual energy yield of 130,000 MWh at an average efficiency of 30%.

• Geothermal energy is suitable for space heating and water. Due to the main potential for use in rural areas - housing, greenhouses, aquaculture, pasteurization of milk - at distances up to 35 km from the place of extraction of hot water.

• Solar energy can save fossil fuels to heat water and thus reduce CO2 emissions. Since solar energy is in competition with biomass, the main demand of hot water is heated by solar energy in urban areas. Photovoltaic panels are also used extensively in urban areas.

6. Conclusions

The economic and social development in the long term requires a balanced energy policy that will pursue the following objectives:

- Economic stability and security of supply in conditions of uncertainty in the price of energy resources on the international market, continued growth in energy demand;

- Environmental protection - by introducing new technologies for energy production and consumption with low environmental impact and reducing climate change;

- Proper functioning of the internal market in electricity and natural gas, competition guarantee transparent, non-discriminatory and integration into the regional and European market;

- Development and production of new technologies for the production and consumption of electricity and environmental protection; thereby, the energy sector will help to foster economic development and create new jobs;

- Information and communication technologies plays an important role in improving the efficiency of the entire production chain - transport - energy consumption. These technologies offer potential for a structural shift in processes and services with low resource consumption, energy savings, as well as transmission and distribution networks smarter and more efficient.

The energy sector should be a dynamic sector, to actively support the country's economic development and reduce the gaps with the European Union. In this respect, the overall objective of the energy sector strategy is the energy needs both now and in the medium and long term, affordable, suitable for a modern market economy and a civilized standard of living, in terms of quality, food safety, respecting the principles of sustainable development.

The main strands of Romania's energy strategy converging with those of the European Union energy policy are:

- Increasing security of supply both in terms of fuel mix and network infrastructure;

- Election of a balanced energy mix, giving the energy sector competitiveness and security of supply, emphasizing the use of internal resources, namely coal, hydropower potential economic conversion potential of nuclear energy and renewable energy sources;

- The efficient and safe rational exploitation of exhaustible sources of primary energy in Romania and maintaining an acceptable level (in terms of economic and security), the import of primary energy sources (dependence on limited / controlled);

- The diversification of sources of uranium supply sources by combining rational exploitation of national import of uranium and / or uranium deposits concession outside Romania to exploit them;

- Increase energy efficiency throughout the chain: extraction - production - transport-distribution - consumption; Romania can no longer afford to waste the shrinking availability of energy and the increased cost of energy sources; Energy efficiency is the most cost-effective method of reducing emissions, improving security and lowering bill competitiveness and energy service;

- Promoting the use of renewable energy sources in conformity with the European Union under the National Action Plan in the field of renewable energy resources - NREAP, developed in 2014;

- Improving the competitiveness of markets for electricity and natural gas, correlation and active participation in training internal energy market of the European Union and the development of border trade, taking into account the interests of consumers in Romania and Romanian companies;

- To create market conditions which stimulate higher energy savings and increased investment in low carbon technologies;

- Transforming transmission and distribution of electricity in smart grids and large scale implementation of smart metering systems; they represent tools for large-scale integration of renewable energy will help improve energy efficiency and make consumers active participants in the operation of the power system;

- Securing investment for developing the energy sector, including by attracting private capital and funds provided by the EU;

- Facilitating investment in projects that contribute to the objectives set for 2020 according to EU policy, cross-border projects on energy transportation networks; will consider granting loan guarantees for public private partnership and risk sharing mechanisms (especially for the risks posed by new technologies);

- Increasing the capacity of innovation and technological development;

- Achieving the objectives of environmental protection and reduction of greenhouse gas emissions greenhouse;

- The implementation of safe technologies of radioactive waste management;

- Reducing vulnerability and increasing the security of critical infrastructure in the energy sector - large hydropower stations, nuclear power, energy transport networks;

- the proactive participation in EU efforts to formulate an energy strategy for Europe, with the pursuit and promotion of national interests;

- Supporting research - development of new technologies on improving the efficiency of energy production and consumption and environmental protection, and education specialist;

7. Bibliography:

1. I. Popescu, E. Turcu, „Energia încotro?", Ed. Scrisul Românesc, Bucureşti, 2012
2. I. G. Florescu, „Aventura surselor de energie", Ed. Albatros, Bucureşti, 2014
3. I. Popovici, „Terra, prezent şi viitor", Ed. Scrisul Românesc, Bucureşti, 2012
4. L. Richard şi A. Chrystal, „Economia pozitivă", Ed. Economică, Bucureşti, 2011
5. M. Maliţa, coordonatorul seriei, „Probleme globale ale omenirii", Ed. Academiei, Bucureşti, 1979
6. S. Neguţ, „Un singur Pământ", Ed. Didactică şi Pedagogică, Bucureşti, 2013
7. Strategia energetică a UE pentru perioada 2014-2020
8. Elemente de strategie energetică pentru perioada 2014 – 2035, MECMA 2014, actualizare aprilie 2015
9. Comunicarea Comisiei către Parlamentul European, Consiliu, Comitetul Economic şi Social – Perspectiva energetică 2050, Bruxelles, 15.12.2014 COM 2014
10. Commission of the European Communities - Communication from the Commission - Action Plan for Energy Efficiency: Realising the Potential {SEC(2014)1173} {SEC(2014)1174} {SEC(2014)1175} - Brussels, 19.10.2014