



### **FOREN 2014 - ENERGETIC EVENT OF THE YEAR IN CENTRAL AND EASTERN EUROPE**

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Between 21<sup>th</sup> -26<sup>th</sup> of June 2014 at the Palace of Parliament, in Bucharest was held the Regional Energy Forum FOREN 2014, which, at its 12<sup>th</sup> edition became a traditional event of energy specialist's community in Central and Eastern Europe. The Forum, organized under the aegis of World Energy Council-WEC and the High patronage of Romania's parliament was privileged by the attendance of high governmental representatives of the region's countries.

FOREN 2014 has been designated by WEC as the world's second energetic platform together with the other, held in Houston (USA), which brought together the countries of Central and South Eastern Europe around the most important macro regional project of the EU, the Danube Strategy. FOREN 2014 has been organized in a period of crisis and huge challenges. The tensions between Ukraine and Russia have moved the axis of debates towards the regional energy security issue.

The participation of important energetic companies such as Exxon Mobile, Socar, KazMunaiGaz, General Electric, Gaz de France, E.ON, Enel, CEZ has offered to the participants the chance of transparent debates which led to the identification of real solutions regarding the reduction of EU's energy resource dependence to Russia

The Event has included a scientific session many other conferences, workshops, international exhibition with 50 stands together with a rich social cultural program.

The technical program of the FOREN 2014 with the subject „Tomorrow's energy. From vision to reality " has been focused on the main challenges and opportunities for the energetic industry, for its sustainable and secure development.

A special moment was the official opening which took place Sunday 22th of June 2014, at the Romanian Athenaeum.

FOREN 2014 was the first reunion of the states from Central and South Eastern Europe around the EU's most important macro-regional project, i.e. the Danube Strategy, in which project the involved countries - Austria, Bulgaria, Croatia, Germany, Hungary, Moldavia, Slovakia, Romania, Ukraine and Serbia – develop common initiatives of European scale in the field of energy.

Romania has proposed among other initiatives a new project for the N-S energy transport axis and an underwater electricity transport cable from Black Sea to Black forest. The participants have had the occasion to deeply analyze the energy issues in this part of Europe. In this regard, we can mention the statements of Mr. Răzvan Nicolescu- delegate ministry for energy and Iulian Iancu- president of Romanian National Committee of WEC (RNC-WEC).

Ministry Răzvan Nicolescu said "Energy is a field in which Romania may play an important role in Europe and in the world. We need a strategy on long term which overcome any electoral cycle. They are three-four general priorities among which: revision of the energy strategy with a new predictable horizon until 2030 - 2035; attraction of investors. It would be desirable to have national investors, because energy need huge investments in the upcoming years, I think we need involvement of foreign investors too. "

President of RNC-WEC Iulian Iancu said : "Energy industry is now in a stage of re-defining the energy policies. It is necessary a third industrial revolution based on renewable energy and interconnected suppliers"

"Reindustrialization is a geostrategic necessity, a social goal, and it is considered as a solely commonly accepted project from political and democratic point of view. Reindustrialization in energy is based on six pillars: increase of renewable energy share from 20% to 27% until 2020; increasing energy efficiency; decentralization of the energy production; storage technology development and smart grids."

A synthesis of the papers presented in the 5 sections and the issued results from discussions is presented as follows:

### **Section 1: National Policies and Objectives to meet EU Energy-Environment Policy Integration. Conventional and Renewable Sources. Financial Mechanisms**

In this section the following selected topics were discussed: Energy scenarios, Security of energy supply, Energy and environment, Energy accessibility, Technologies for energetics sustainable development.

The general objective is to satisfy the energy demand, in present and in medium and long time horizon by using efficient technologies in terms of costs and security, taking into account the sustainable development principles.

The energy strategy will be focused on the fulfillment of the main objectives of the new energy and environmental EU policy, assumed by Romania, i.e.: security of supply, competitiveness in internal and regional market, sustainable development, environment protection and global warming reduction, attracting capital for energy assets upgrading and development.

After the first round of public debate, the new energy strategy of Romania, horizon 2035, the Department for Energy delivered a set of guiding principles of this strategy:

- A well balanced energy mix as a tool for maintaining security of supply;
- Judicious support for development of renewable resources based mainly on biomass taking into account the rapid and unsustainable growth in wind and solar energy facilities in the past years.
- Nuclear energy further development is also in line with fulfillment of the EU imposed GHG emission reduction goals.

### **Section 2. Energy Markets. Market vs Planning. Transmission and Distribution Operators Role in Energy Market. Stability vs Flexibility**

In this section, the main issues were focused mainly on:

- Different regulation measures impact on energy market;
- Price forming mechanism on the electricity markets;
- Regional aspects of the electricity market and operational coordination;
- Improved operation of networks and its effects on the market;
- Increasing voltage of transportation lines at 400kV and its impact on network efficiency

### **Section 3 : Nuclear and Renewable Energy Sources.**

Nuclear energy can be a solution for EU's energy problems being sustainable, safe and cheap, so is compliant with basic requirements of EU energy policy.

The papers in the subsection Nuclear energy Operation and safety covered practically the whole cycle of nuclear fuel, from its producing until waste storage.

Renewable energy is a basic pillar of reaching the 20-20-20 EU initiative. One of the key issues of renewables is the correct assessment of their potential, in terms of theoretical, economical, realizable and realistic value. Another issue of renewables is the ways and means to make them competitive on the market.

### **Section 4: Oil, Gas - Conventional and Unconventional.**

This section held the most interesting debate. Being aware with the main challenges of the field the participants presented interesting papers. The main issue was the rise of non-conventional gas and the perspective of depletion of classical resources. The non-conventional resources together with renewable ones are the answer for the future's energy incertitude.

E.g., USA, the use of non-conventional gas led to the possibility to make available huge quantities of LNG for exportation.

The transition from traditional to non-conventional resources must be accompanied by clear regulations and best practices dissemination targeting mainly energy supply security and environmental concerns.

### **Section 5 : Coal and Clean Coal Technologies**

Whole development of human society in the past century was based on the discovery and use of limited and non-renewable fossil energy resources. Their general spread of utilization and their limited character together with their important environmental impact led to very intense disputes among scientific, political and business stakeholders at global scale.

Coal is still representing an important energy resource, the known reserves being sufficient for covering the demand for more than one century. On the other hand, coal is the most environment damaging element among all fuels. By implementing clean use technologies, such as capture and storage of GHG gases and eliminating other harmful wastes resulted from burning, the coal can be considered as an important, viable and economically convenient energy resource.

**In this context, the section** Coal and Clean Coal Technologies offered the opportunity of a useful exchange of opinions in view to contribute to the reconsideration of this resource in the energy policy.

The main topics were: Clean technologies, Cogeneration, Energy security, New technologies, Coal and environment, environment rehabilitation. The presentations were focused on

- Up to date technologies of coal extraction and beneficiation;
- Carbon dioxide and other gases emission reduction at coal burning power plants;
- Carbon dioxide capture and storage in geologic structures;
- Extraction and beneficiation of CBM in Jiu Valley coalfield;
- Role of coal in energy mix;
- Innovative and efficient technologies for coal burning power plants;
- Comparative studies of coal based energy production in different countries.

The main conclusions resulted after presentations and discussions were:

- the Romanian underground coal mining obtains weak performances due, mainly to aging technology and lack of investments;
- if no radical changes will be operated in actual extraction technologies, the coal based electricity will have noncompetitive costs;
- The actual extraction processing and beneficiation technologies must be changed in a radical, fundamentally new manner;
- The CCS technology must be experimented in Jiu Valley coalfield in combination with CBM recovery with a double advantage;
- The competitiveness of coal mining companies must be based on a new assessment method;
- New management approach for coal mine- power plant merged energy complexes;
- Taking into account of social aspects of coal mining downsizing, in the two mining regions, internalization of social costs in the overall efficiency assessment;
- Rethinking the strategic role of coal deposits and coal based electricity, mainly in the terms of security of supply in crisis periods;
- A scenario based assessment of future strategies, allowing enough flexibility to adapt them to the evolution of geopolitical environment. Unfavorable scenarios must be detailed also to be applicable in case of necessity.

At all the sections the best papers were awarded.

At the section „*Coal and clean technologies for coal*” the awarded presentations were:

1<sup>st</sup> Prize .-the paper ***“Preliminary tests performed at the block no. 3 at Rovinari power plant for reduction of NOX”***, authors : Bizga Marius and Popescu Ion

2<sup>nd</sup> .Prize .-the paper ***“Scenarios based on hard coal in Jiu Valley ”***, authors : Iliáš Nicolae, Andraş Iosif, Radu Sorin-Mihai, Gruneanţu Iosif, Chiril George, Mârza Florin, Mija Eduard, Roşioru Inga.

3<sup>d</sup> .Prize the paper ***“Briquetting of lignite – a solution for obtaining environmental friendly fuel”***, authors : Antonie Daniel, Predoiu Ionuţ, Balacescu Sorin.

Youth prize : the paper ***“Oltenia’s coal –a secure solution for Romanian energy industry”***, author : Predoiu Ionuţ.