

PUBLIC POLITICS IN THE ENERGY FIELD

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Abstract

The present endeavor proposes the analysis of public politics which regard the energy sector. The energy sector represents a fundamental and determining component in the states' social-economic development, a sector which is related even to national security. The European Union is the largest energy importer on a global scale, importing approximately half of the energy demand and the pessimistic projection is placed at approximately 70% in the perspective of the following two decades. Accomplishing energy security on the European Union's level implies a number of directions for action: diversifying the sources and routes of transport in regard to natural gases; intertwining member countries so that no E.U. state is left isolated in crisis situations; decreasing dependency of conventional sources and increasing energy efficiency; reinforced dialogue with energy suppliers.

Keywords: energy system, energy security, public politics, economic sustainability, politics regarding energy on the European Union level.

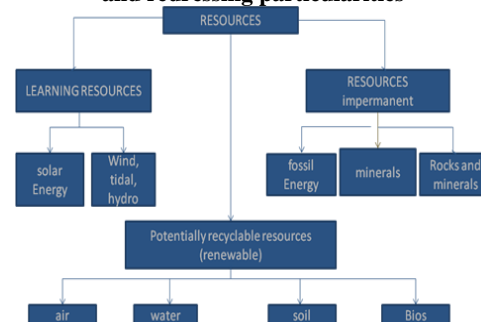
1. Introduction

As far back as the previous years we have been drawing attention (through our studies published at CKS in 2013 and 2014) on the exponential growth of the planet's population while the resources of the said planet are in a continuous decrease. Resources mean energy, hence our current endeavor since the modern society has an industry mainly based on energy.

The main energy resources must be found in appropriate amounts and must be conveniently exploited from a technical, economic and lasting perspective point of view. These sources are represented by fossil fuels (coal, petroleum and natural gas, heavy petroleum and asphalt), pyroschist, biomass energy, hydroelectric power, nuclear power, geothermal energy etc.

Natural resources and especially energy resources have always influenced the evolution of human society, the economic development, national economies of the world's states, the global economy in its ensemble. The interdependency between the existence or inexistence of resources and the level of the world's states' economic development has long been understood and has marked the world's political evolution.

Classifying resources after the exploitation period and redressing particularities



As it was evaluated in the Agenda 21¹ in 1992, "Energy is essential to economic and social development and improvement of life's quality". The pacifist vision of the UNO's members is contradicted by a series of authors who associate the existence of resources with the international degree of power possession and control wielding or even with something more critical such as terrorism. For instance Walter S. Jones² considered power to be an international actor's capacity to use its tangible and intangible resources in such way that it can influence the international relations' results to its own benefit. In the same context the expression "energo-fascism"³ was introduced and through it the American analyst considered that the beginning of military conflicts that aim at fractioning energy resources were defined. Hydrocarbons were especially considered among the resources.

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¹ Agenda 21 represents an action plan that is not mandatory implemented by the United Nations in regard to durable development. It took place in Rio de Janeiro, Brazilia, 1992.

² Walter S. Jones, „The Logic of International Relations”, Ed. Harper Collins, 1991

³ Michael T. Klare, „Blood and Oil: The dangers and consequences of America's growing oil dependency”, Ed. Henry Holtand Co, New York, 2004

As far back as 1908, since petroleum was discovered in Iran, the British company AIOC – Anglo-Iranian Oil Company⁴ immediately started to exploit it (Laurentiu Dologa, 2011). The British used the local cheap workforce and if protests arose they would appeal to workers from neighbor countries for a period exceeding 40 years. Unfortunately many military conflicts are based on holding or controlling the energy resources' exploitation. Proof to that effect is represented by the wars in the Persian Gulf, Angola, Chechnya and more recently Ukraine.

Nevertheless, Robert Cuttler⁵ considered that as long as they can generate military conflicts they can also represent a mean for international diplomatic negotiation and thus introduced a new term called "cooperative energy security" that he considers it to be able to insure equity in the relations between producer, exploiter and consumer through diplomatic negotiations. Many authors associate to him with the opinion that the current world is a terrain of continuous searches for certain resources at reasonable prices⁶, or that limiting resources could, as a result, determine the large consumers to renounce the energy independence in favor for energy interdependence. The energy interdependency can emerge between producer, exploiter, distributor and consumer as links of the same trophic chain in which everyone aims at promoting their own interests, or the interdependency between large producer corporations and governments, which is also sustained by Yergin Daniel⁷, the president of Cambridge Energy Research Associates (CERA). As a matter of fact, Yergin is also known for his statement according to which petroleum is 10% economy and 90% politics, which he gave in order to describe the importance of this energy resource in the 30's of the last century.

2. Content

2.1. Legislative regulations regarding energy

The 1952 treaty constituting the European Coal and Steel Community (ECSC) as well as the 1957 treaty for constituting the European Atomic Energy Community (EURATOM) represented the first modest trials of legislative regulation in the energy fields. Although coal was representative for the 19th century and petroleum for the 20th century, these two vital resources of energy were not legislatively taken into consideration until after the Second World War. A huge petroleum consumption engaged by the international conflagration determined the specialized

authorities to foresee the exhaustion of petroleum reservoirs.

In order to fight against the lack of "traditional" energy from the 50's, the six founding states of the European Union attempted to find in the nuclear energy a method of obtaining energy independency. From the very beginning of this organism the member states had a common vision regarding the role and importance of managing energy resources.

a) The Single European Act (1987)⁸ marked a turning point for the single market but the energy did not receive a special interest because, at that time, the governments were not willing to abandon a part of their control over the national energy monopolies in favor of opening to the market.

b) The Maastricht Treaty that was concluded in 1992 and recognized under the name of Treaty on European Union brought a couple of additional definitions for the internal energy market without including an energy chapter. The European commission prepared a chapter proposition which Great Britain, Holland and Germany vehemently opposed. The same faith applied to another proposition made by the Commission, which regarded the administration of the Energy Charter by the Energy Commission inside the EC. The proposition to include the Energy Chapter was replaced on the agenda of the next Amsterdam Treaty, in 1997, but was once more rejected. It is interesting that the European Parliament was a strong supporter of the Energy Chapter while her adversaries were the member states. Nevertheless, the EU treaty brought something new for the energy sector by broadening the action surface of the subsidiary principle, valid until that date only for environmental issues.

c) The Amsterdam Treaty (1995) approved for the first time a community initiative in the energy field – Trans-European Energy Networks (TENs), a project that aims at extending the transport, telecommunication networks and the pan-European energy infrastructure beyond the Union's strict border. The purpose of these programs is to enhance the capacity of the national networks to interconnect and interoperate, the process of accessing them as well as to connect the isolated and peripheral areas with the central regions in the Union. A special budgetary line for administrating these programs exists in the Union's budget.

d) The European Charter of Energy. The idea that the economic re-establishment in the ex-communist area as well as the energy supply assurance in countries from the community area could be consolidated through collaboration in the energy field

⁴ <http://www.ziare.com/international/cia/rastumarea-democratiei-iraniene-de-catre-cia-1084814>

⁵ Robert Cuttler, „A Strategy for Cooperative Energy Security in the Caucasus”, in *Caspian Crossroads* 3 no. 1, 1997

⁶ Proninska Kamila, „Energy and Security: regional and global dimensions”, Ed. Oxford University Press, 2007, p. 216

⁷ Yergin Daniel, „Ensuring Energy Security”, in *Foreign Affairs*, vol. 85 no. 2, 2006, p. 70-72

⁸ „Of the European Union's energy policy”. The study was elaborated during the Phare project RO 0006.18.02 – Forming public servants from local administration in European business and managing the project cycle, implemented by the European Institute in Romania in collaboration with the human dynamics in the year 2003. The study is part of the Micromonographies Series – European Politics, the updated version.

was launched during the European Council of 1990 in Dublin. Thus the European Charter of Energy emerged, whose final document was signed at Hague by 51 states in December 1991. The framework for legal cooperation that put into effect the Charter's principles was established through the Energy Charter Treaty. The treaty is based on respecting the Internal Energy Market's principles and represents an extension of it towards the entire Europe and further on (Japan is one of the signatories). An important part of the Treaty refers to the energy efficiency and the problems related to the environment's protection. It also includes articles that establish conditions of competition, transparency, sovereignty, taxation and environment. The treaty became effective in 1998.

e) **The Green Book of Energy.** The European commission plays a central role in the debate carried out by several actors in the energy market. The European Commission's first communication that approaches the matter of a common energy policy dates from 1995 and it was called The Green Charter „For a European Union Energy Policy”.

The White Book, “An Energy Policy for the European Union” followed in the same year, then a new sequence of communications in 1996 and 1997, called “Green Paper for a Community Strategy – Energy for the Future: Renewable Sources of Energy”, respectively “White Paper: Energy for the Future – Renewable sources of Energy”. These documents stand at the base of the present common energy policy and of the European legislation created to put it into practice. The complexity of the problems related to producing energy, transport and energy consumption has increased considerably in the last decades, simultaneous with the aggravation of global environment issues, climate changes and exhaustion of natural resources. In addition to these, the European Union is confronted with a few specific problems among which the most serious is the one related to the pronounced dependency for imported energy resources. Placed also under the pressure of the engagements assumed through the Kyoto Protocol, the European Commission launched in the year 2000 the third **Green Book “Towards a European strategy for the security of energy supply”**. The final rapport regarding the Green Book of Energy was presented by the European Commission on June the 27th 2002. A recent moment which signaled acceleration in the development of the common energy policy took place in the **Barcelona European Council** (March 2002) where the total liberalization of the electric energy market was decided for the industrial and commercial consumers starting with the year 2004.

2.2. The European policy within the energy market domain⁹

The internal market of energy is still fragmented and has not reached the potential of transparency,

accessibility and choice. Although the companies have grown beyond national borders their development is still influenced by a series of different national rules and practices. There are still many barriers for an open and just competition. At the same time the member states need to eliminate subventions from the sectors with a negative impact on the environment. Sustainable efforts are made in order to achieve the target of insuring 20% of the consumption out of renewable sources. The European Commission issued the Third Package of legislative provisions dedicated to the internal electric energy and gas market. It establishes the necessary regulatory framework for a complete energy market disclosure and has become effective on the 3rd of September, 2009.

1.The Regional Market. Recent evolutions in the central-eastern European area indicate the development of certain market examples based on different options, projects that are not fully convergent. Nevertheless, the accomplishments made in 2010 and at the beginning of 2011 brought with them the optimistic signal that the differences of opinion and the unequal stage of maturity and liquidity represent obstacles that can be surpassed through collaboration, taking into consideration the mutual interest and imperative implementation of the EU directives. Therefore¹⁰:

- on April the 4th, 2010 Nord Pool introduced a new bidding zone (Estlink) represented by the Estonia market;
- on August the 20th, 2010 the electric energy market OKTE starts its activity in Hungary;
- on November the 9th, 2010, the connection by price of central-western markets is launched as well as the connection by volume of the regional market CWE, thus formed with the Nordic region;
- on November the 30th, 2010 the Memorandum between the Ministry of Economy, Commerce and Business Medium of Romania and the Economy, Energy and Tourism in the Bulgarian Republic was launched for organizing and implementing the project for connecting electricity markets;
- on December the 15th, 2010, Poland was connected by price to the regional market administered by Nord Pool Spot;
- on January the 1st 2011 Slovakia 's operator in the electricity market, OKTE, starts its activity;
- on January the 1st 2011 the markets in Italy and Slovenia connect.

These legislative elements are meant to insure more safety in food supply, to promote durable development and to insure conditions for a fair market competition. The effective separation of the energy's production and sale from its transport, which is stipulated in this new legislative package, will create more freedom of movement for investors in the energy markets.

⁹ http://www.minind.ro/dezbateri_publice/2011/strategia_energya_20112035_20042011.pdf

¹⁰ http://mmediu.ro/new/wpcontent/uploads/2014/01/20111107_evaluare_impact_planuri_strategiaenergyaactualizata2011.pdf

2. The present energy situation.

The important energy resources are divided only in a few categories: solid fuels, hydrocarbons especially petroleum and gases, nuclear energy and

As far as the geographical distribution of energy consumption is concerned it is possible to mention that it is totally irregular by recording large differences from a continent to another as well as from a country

The energy's mix evolution in the European Union

Resource of energy	Gross intern energy consumption in the EU %		Tendency
	2011	2030 estimation	
Petroleum	35	33	↑
Gases	24	22	↓
Nuclear Energy	14	14	~
Renewable Energy	10	18	↑
Solid Fuels	17	12	↓

Source: European Commission 2003

renewable energy. From this entire energy mix 60% are hydrocarbons.

During the year 2000 the weight of energy resources in the global energy balance hereby presented itself: petroleum 36,8%, coal – 25,1%, natural gases – 23,5%, hydropower – 7,0%, nuclear energy – 6,4%, other resources – 1,2%. As a result of the energy crisis considerable changes have been made in the structure of the global energy balance for decreasing the weight of petroleum and natural gases

to another. Thus, in the year 2000 the global energy consumption was dominated by Europe (including Russia) and North America with 60% while the rest of the continents had insignificant consumptions. The larger consumers based on country level and per inhabitant are the USA, China, Russia, Japan, Germany, Great Britain and Canada, with a total sum of 70% of the global energy consumption.

The energy consumption in the EU represents approximately 18% of the global level by comparison

European Union suppliers of petroleum and natural gases (2011)

Petroleum source	Petroleum %	Natural gases %	Natural gases source
Russian Federation	35	30	Russian Federation
OPEC countries	33	28	Norway
Norway	12	13	Algeria
Kazakhstan	6	11	Qatar
Azerbaijan	5	10	Unspecified
Mexico	1	4	Nigeria
Others	8	4	Egypt, Libya, Trinidad Tobago, others with 1% each

Source: European Commission 2013

and increasing nuclear and renewable energy¹¹

Among this energy mix the solid fuels have the following geographical distribution: 66% of the global total of petroleum is situated in the Close and Middle East. The remainder of petroleum is exploited from diverse regions as follows: 8,3% from North and Central America, 8,2% from South America, 7,2% from Africa, only 6,8% from Europe and 0,2% from Oceania. There are also off-shore reserves in the territorial waters belonging to states in the Persian Gulf regions, North Sea, Gulf of Mexico and Guiney. Natural gases are concentrated in Russia, Iran, Qatar, UAE, Saudi Arabia, USA, Venezuela and in the continental platform: Great Britain, Holland and Norway. In the territorial distribution coal occupies 56,7% of the global reserve in Russia, 24% in USA and 9,4% in China.

to USA's level of 23%¹². Being a gross energy importer, the European Union is dependent on external resources mainly originating from the Russian Federation, Norway, Africa and the Middle East. In this context and simultaneous with the EU's economic and social development, its dependency will amplify in the following period. Also in the European Union the energy consumer sectors are transports and industry with over 60%, followed by domestic consumers with 25%, services and agriculture with 15%.

The European Union is currently in the situation of representing the most important energy importer. The 27 member states of the EU presently hold only 0,6% of the global petroleum resources and approximately 2% of the natural gases.

¹¹ European Commission 2013 – Challenges in the energy domain and energy policy – The Commission's contribution to the European Council reunion on May the 22nd, 2013

¹² http://ec.europa.eu/dgs/energy_transport/figures_archive/energy_outlook_2020/execsum.pdf

EU's final energy consumption by sector in 2011

Sectors	Final consumption of energy in the EU% (2011)
Transports	33
Industry	26
Household and residents needs	25
Services	13
Agriculture	2
Other sectors	1

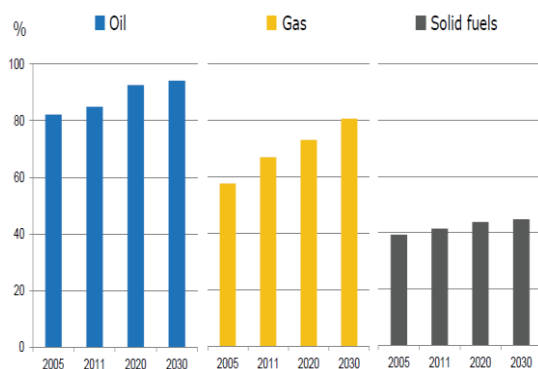
Source: European Commission

The situation is not much different in regard to the coal reserves, the EU has only 4% of the reserves identified on a global level and the energy production capacity represents 18% of the global one. On the other hand, Europe annually imports petroleum, gases and coal with the value of 406 billion EUR (3,2 of the GDP) and it is foreseen that the dependency will rise. According to the European Commission's "EU Energy Outlook by 2020" rapport in the following 15 years the EU will reach the point of importing 70% of its energy requirements.

The petroleum products request is expected to be higher by 50% in 2030, as opposed to the current level. The consumption is expected to increase from the present 85 million barrels per day to 105-115 million in 2030. In order to satisfy this need it is required that in the 2012-2030 period investigations in developing extraction and refinement capacities

The extraction, refinement and the infrastructure for transport and storage require investments of 5950 – 7550 billion USD¹³ during the 2012-2030 period for their development in order to satisfy this need.

The percentage of imported fuel in the EU's total consumption



Source: European Commission 2013

2.3. Romania's situation

The main interest projects promoted by Romania are represented by: Nabucco, P.E.O.P, A.G.R.I (the Azerbaijan – Georgia – Romania interconnector), Interconnecting the national system for transporting natural gases with the one belonging to neighbor states¹⁴.

a. Nabucco. The Nabucco project aims at establishing a pipeline on the Turkey – Bulgaria – Romania – Hungary – Austria track, with a total length of 3296 km. The pipeline will cross Turkey on a 2000 km portion, 400 km in Bulgaria, 460 km in Romania, Hungary 390 km and Austria on 46 km. The pipeline's initial capacity is of 8 billion m³/year with a linear increase until reaching the designed capacity of 31 billion m³ natural gases/year in 2020.

In fulfilling the Nabucco project the following six firms are participating – Botas (Turkey), Bulgargaz (Bulgaria), Transgaz (Romania), Mol (Hungary), OMV (Austria) and RWE Gas Midstream GmbH (Germany).

Materializing the Nabucco project is a priority for Romania. The project is receiving support from all the actors involved and has been recognized by the EU as an infrastructure project with primary importance considering that it is the Southern Corridor's central element.

The interstate Nabucco agreement, signed at July the 13th, 2009 in Ankara and confirmed by Romania through the 57/2010 law for ratifying the Agreement between the Austrian Republic, Bulgarian Republic, Hungarian Republic, Romania and Turkey Republic regarding the Nabucco Project, published in the Official Monitor no. 2020 on March the 31st 2010, became effective on August the 1st 2010.

b. P.E.O.P. The P.E.O.P project is part of the European program INOGATE (Interstate Transport System of Petroleum and Gases).

The P.E.O.P will have a total length of 1360 km (out of which 649 km on Romanian grounds), will start from Constanta port and will reach its destination in Trieste port, Italy. In Trieste the pipeline will connect to the Pipeline Transalpine (TAL) system, which supplies Austria and Germany, with the existing possibility of supplying the refineries in northern Italy.

One of the project's counterpoint is represented by the interest shown by suppliers such as Kazakhstan și Azerbaijan.

c. The AGRI project (Interconnector of Azerbaijan-Georgia-Romania). The AGRI project implies the transport of natural Azerian gases through Georgia and by crossing the Black Sea based on the LNG technology by constructing two terminals (liquefaction and regasification) in Georgia and Romania. The transport capacity that is taken in consideration at this moment is of 8 billion m³ natural gases/annually.

¹³ Oil Supply Security, Emergency Response of IEA Countries, International Energy Agency, 2007

¹⁴ <http://ue.mae.ro/node/425>

This project contributes to the consolidation of three-lateral cooperation through concrete common actions in the energy infrastructure domain, more exactly through the transport of Azerian gas in liquefied form from Georgia, along the Black Sea, in a LNG terminal in Constanta.

b. Interconnecting the national transport system of natural gases with the neighbor states. "Romania's Energy Strategy for the 2007 – 2020 period" has established among the main objectives, conformed with the EU policies, to interconnect the National Transport System to the European transport system.

To this extent the strategy for interconnecting the National System of Natural Gases Transport with the natural gases transport systems in the neighbor countries, elaborated by the SNTGN Transgaz Medias S.A., anticipates the action's fulfillment in the following directions:

- Interconnecting with Hungary on the Arad-Szeged relation;
- Interconnecting with Bulgaria, on the Giurgiu-Ruse relation;
- Interconnecting with the Moldavian Republic, on the Ungheni-Iasi relation.
- Interconnecting with Serbia.

The projects for interconnecting with Hungary and Bulgaria have received European financing during the European Energy Program for Recovery.

3. Conclusions

Analyzing the evolution of fossil fuels weight of last century's global energy market emphasizes important modifications. Thus, if at the beginning of the last century coal occupied a dominant position in the global energy balance (over 90%), after the second world war its weight vertiginously dropped in 25 years by reaching 28,7% as opposed to the weight of other sources, such as petroleum, natural gases and nuclear energy, that increase.

The current certain global reserves of fossil fuels can insure an energy consumption over a period of 100-120 years at the present level of production and consumption.

The fuel production on country levels signals a strong concentration in a reduced number of states. Hence, in 1999 only nine states were part of this category: U.S.A., China, Russia, Saudi Arabia, Canada, India, Great Britain, Australia and Germany held approximately 60% of the global production of fossil fuels¹⁵.

Under these conditions the existence of a management is required for the electrical energy demand. The energy consumption will have to be controlled and managed, especially by closely monitoring the energy efficiency and by diversifying the primary energy sources. In order to insure the primary energy supply in Europe, the creation of a new energy partnership has been agreed between the EU and Russia and it will contain precautions related to the network's safety, the investments' protection, and major projects of common interest.

The new and renewable sources of energy presently represent only 6% of the EU's energy balance. If the trend is maintained they will only cover 9% of the total consumption by 2030. The directive regarding the promotion of energy produced from renewable energy sources placed an important step toward attracting the interest for investing in alternative sources. As far as the nuclear energy is concerned, the fears connected to global warming have changed its perception. It is an acknowledged fact that using nuclear and renewable energy, along with the increased energy efficiency, lead to limiting the greenhouse effect caused by the gases issued? by fossil fuels. In order to completely abandon the nuclear energy 35% of the electric energy production requires to be provided from other sources. As a result the nuclear option remains open to the European states that desire it. However, processing and transporting radioactive wastes remains an unresolved matter. The new member and candidate countries that own old reactors are obliged to shut them down or modernize them, as the case is for the nuclear groups in the Dukovany station in the Czech Republic or Kozlodui in Bulgaria. Being a subject of major interest, nuclear safety will become the object of regular rapports, a standard of common practices and a European control and peer-review mechanism will be elaborated. The states will need to build national systems of radioactive wastes deposit.

The energy commerce in the EU covers only 8% in the case of electric energy and still requires interconnection capacities. A development plan exists for the gas and electricity networks and several projects of European interest have been identified. In the same context, the safety for food supply imposes and effort of long-term anticipation and consolidated relations with third countries. Detaching consumption from the economic growth is a tendency of common energy politics, through which the trials of decreasing and ending the negative influences of the energy sector on the environment and social life are carried out. The recommended instrument is the efficient use of energy.

¹⁵ <http://www.scribub.com/geografie/ENERGYA-MONDIALA93744.php>

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