

EUROPEAN ENERGY INTEGRATION IN EAST EUROPEAN COUNTRIES: REAL NECESSITY TO ASSURE FAIR MARKET PRICES FOR ENERGY RESOURCES

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Abstract

In order to assure energy, and therefore, economic stability of East European States (hereafter EES) there should be undertaken visible steps towards deeper energetic integration of the region under the coordination of EU. In such a way there will be considerably strengthened the regional economic security through creating functional mechanisms of solving current and potential energy issues including diversification of supplies and fairer market prices. Moreover, it will be possible to develop and implement more effectively energy infrastructure projects. Deeper and more functional energy integration in EES will create favorable preconditions of fostering the states' economic development. Also, there will be considerably reduced the macroeconomic risks which could possibly occur as a result of the struggle of interests of importing and supplying countries. The current paper is intended to underline the most important weaknesses in terms of energy security of EES and exemplify how efficient these problems could be tackled by cumulating common countries' efforts in the sector. Also, it highlights the shortcomings of EU energy policy in EES and how these affect the economic prospective of the countries. Finally, it is remarked that EES need a common energy market in order to strengthen their negotiation positions in relation with supplying countries.

Keywords: Energy integration; European Energy Community; Monopolistic position; Fair market pricing; Regional Integration

Introduction

Economic development of a country depends on many factors and conditions such as the availability of natural resources, geographical location, internal technological advancement or the correctness of governmental policies. The European Union has developed many strategies to accelerate economic, social and political progress. Many results have been achieved considerably increasing life standards within the community. Despite this fact, the energetic sector of EU has not received the corresponding attention during last years. One of the major problems caused by this lack of concern is the high degree of dependence of some EU countries upon the gas exports from Russian Federation and, respectively, low degree of coordination of common policies in this regard. The energy sector difficulties are even greater for Ukraine and Moldova, as the states are outside the EU, this fact reducing considerably the degree of

countries' energetic security. Therefore, it can be underlined that the Eastern European countries, member or associated to EU, meet various pressures caused by external factors influencing their internal decision making process due to their energy dependence (Deak, 2013).

This lack of coordination of energy policies in East European countries weakens the internal strength of the European community destabilising regional security. Moreover, the internal energy market of the European Union could only be empowered by higher interconnectivity of energy markets with associated states. This would be followed by much more efficient coordination in dealing with the sectorial problems. Consequently, the result is lower energy prices for industrial or household consumers. A unique EU energy market extended to Moldova and Ukraine would assure stable energy supplies for all members of the EU community and for EU associated states respectively (Kosse 2014). Therefore, extra communitarian subjects will not be able to influence internal EU policies through selling energy supplies based on discriminatory prices for nations which are in someone's circle of security interests.

The goal of this research is to underline the benefits the European Union and its East Europe associated partners will obtain as a result of deeper energy integration followed by higher degree of energetic independence.

The methodology of the current paper is based on the analysis of basic indicators (i.e. gas price, states' energy balance, transit of energy resources). These are intended to present the current problems caused by the lack of a higher degree of integration in energy sector of Eastern European countries. Data used would consider the import of energy, prices, internal production, distribution companies and their ownership, main import origins, dependence degree and so on.

1. Literature review

The matter researched in the present paper is of high importance for European economic and academic elites due to its strategic significance. Therefore, there have been conducted various studies highlighting different aspects of the current issue.

It is generally accepted that the energy sector in East Europe is highly unstable and is affected by multiple external factors including not only economic interests but also political and geo-strategic ones. Moreover, the arrangement of power in the energy sector is uneven, the balance being in favour of the supplying countries (Batory S., 2007).

Smith K., 2010, underlined the idea that East European nations should improve their cooperation in the energy sector in order to defend more effectively the national interests in energy domain in relation with supplying states. It is also stated that the European Union has not learned the lessons of y. 2006 & 2009 energy crises by not developing an efficient common

energy policy. Furthermore, it is highlighted the low implication of the international organisms in combating non transparent companies involved in the energy business.

Thim M., 2008, & Raines, 2016, consider that it is highly important to East European nations to elaborate common policies in energy sector which are to be supported by courageous actions in the implementation process. In such a way, by coordinating sectorial efforts will be much empowered the regional energy security of participating countries.

Siddi M, 2015, argued that the economic stability of East European countries relies on energy security. The European Union should focus its efforts towards the reduction of the degree of energy dependence by developing the regional energy infrastructure and generating powers in order to assure that no party has monopolistic weigh. Jirušek M., 2015, considerably widens the prospective of energy security in East Europe. It is highlighted the strategic role of EU institutions in cumulating efforts towards assuring energy independence. Unless stricter energy policies and rules are developed by the EU, the Eastern European countries and EU associated partners will suffer losses in tackling external economic and political issues.

Deak A, 2013 and Kosse I., 2014 highlight the necessity of European Union to provide new functional instruments to East European nations, member or associated to EU, in order to avoid economic and political losses from potential lack of market driven prices on energy resource. There is also provided advice regarding the possibilities of valuing multiple sources of energy supplies and developing new alternative energy infrastructure.

The current paper is intended to assess the present situation in the energy market of East European countries. It also supposes to exemplify why the European Union needs to deepen the energy integration, develop and modernise current energy capacities to assure sectorial stability. Moreover, there are highlighted the most important points the European Union should be focused in order to assure regional stability and successfully promote its economic interests. Finally, there are some reasons intended to underline the strategic importance of regional cooperation and integration in energy sector to assure competitive market prices for energy resources.

2. Energy market of Eastern European States

The Eastern European states (EES) alongside with Moldova and Ukraine with a combined population of almost 142 million people have a relative high degree of dependence upon the energy imports the fact affecting countries' economic stability and security.

The combined gross inland consumption of energy supply of these states in 2014 was of almost 350 000 thousand tonnes of oil equivalent. The average price of oil in 2014 was of \$693

per tonne, therefore, it can be approximated that the market of primary energy in the previously mentioned countries in 2014 was of \$242 billion⁸. Therefore, it can be assumed that a higher degree of cooperation in this field would help to direct funds towards efficiency and economic effectiveness.

The largest consumers of primary energy among these countries are Ukraine and Poland with 30% weight and respectively 27% in the total amount (figure 1).

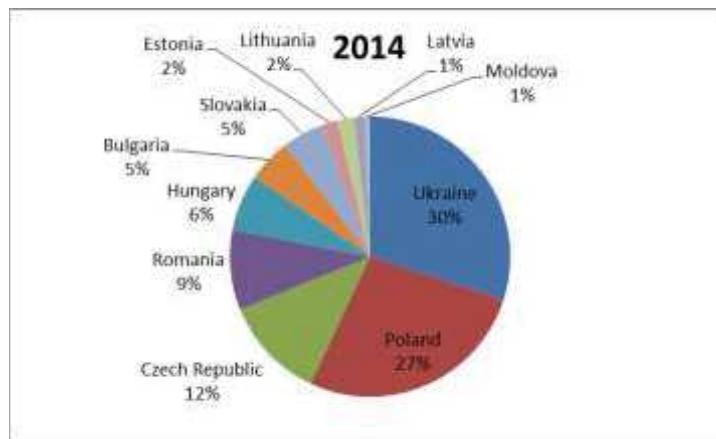


Figure 1: Share in the total amount of primary energy market

Source: Drafted by the author based on EUROSTAT data

This fact underlines Poland and Ukraine's strategic position in the market of East European energy and their importance for partner states. Moreover, as the combined market share of these countries is almost 57% from total EES consumption, their exposure towards external influence is much higher. Their energetic security is affected the most due to large energy imports, and, thus, a slight change in the price deteriorating their economic stability and development. Poland as a member country of the European Union has to suffer less due to the communitarian "umbrella" which assures Union's protection to its economy. Ukraine, on the other hand, lacks this advantage and, therefore, is extremely affected by the price manipulation on energy supplies provided by external factors. These unfair market practices have been widely used causing the decreasing economic potential of Ukrainian industry and, consequently, the downturn of its social prosperity (Batory 2007).

This situation does not correspond to the European Union's rules of free competition. Therefore, as the Ukraine and Moldova are EU associated states, it will be reasonable that these

⁸ Data regarding the market size of EES is provided by Eurostat and Statista.com, available online at: <http://ec.europa.eu/eurostat/web/energy/data/database> and <http://www.statista.com/statistics/262860/uk-brent-crude-oil-price-changes-since-1976/>

countries to be integrated deeper in EU energy sector to assure cost and stability benefits for both parties.

As a result, it can be remarked that East and South East European countries, member of the European Union or associated to, would have much more negotiation power in determining the most fair market prices based on free market competition. It would be avoided the interference of political lever in setting discriminatory prices for different nations. As a result, the gas price for Slovakia would be the same as for Ukraine, because the commodity sold to both nations is corresponding. So, would it be fair that the oil price per barrel for German consumers would be higher than for French people, because of someone's personal preference? Surely, it would not be! Consequently, why does this fact happens in Eastern Europe, when the same gas is sold at different prices to different countries? (Thim 2008)

There is a very important point which has to be taken into consideration and namely the degree countries rely on imported energy. Therefore, the suppliers overcharge some consumers because of their monopolistic position on their market, which clearly is not fair and according to market principles the EU so much relies on. Hence, it can be noticed that East European associated to EU countries suffer much more from energy monopolies than Western counterparts do. The European Union as the guarantor of freedom and free market should assist its associated partners in setting supply-demand determined prices.

In order to assess the degree of EES reliance on imported energy it shall be examined table 1, which informs considering the energy imports, net (% of energy use).

Table 1: Energy imports, net (% of energy use)

	2009	2010	2011	2012	2013
Ukraine	30,57883	40,40606	32,30894	30,3022	26,01672
Moldova	95,94134	93,81178	92,53412	92,24742	90,0496
Poland	28,60349	33,21092	32,50445	26,97655	27,32467
Czech Rep	25,79574	28,6958	24,77472	23,39931	28,10459
Slovakia	64,52556	65,18453	63,01529	61,29148	61,26632
Hungary	55,73525	56,99304	56,8358	55,04241	54,75735
Romania	18,76109	21,57087	22,99181	22,1643	18,56247
Bulgaria	43,78723	40,73361	35,65109	35,8673	37,15522
Lithuania	49,88846	78,4405	78,99875	78,91511	76,49818
Latvia	52,36319	56,14115	51,25185	47,09095	50,67987
Estonia	14,62175	12,31326	10,44537	7,790224	7,226919

Source: Drafted by the authors based on World Bank data

As World Bank explains ⁹

⁹ Explanation provided by World Bank, available online at: <http://data.worldbank.org/indicator/EG.IMP.CON.SZ>

It should be mentioned that net energy imports are estimated as energy use less production, both measured in oil equivalents. A negative value indicates that the country is a net exporter, while a positive one that the country is net importer. Energy use refers to use of primary energy before transformation to other end-use fuels, which is equal to indigenous production plus imports and stock changes, minus exports and fuels supplied to ships and aircraft engaged in international transport.

So, it can be noticed that the energy dependence among these countries varies. There are countries with lower levels of this indicator as well as countries with higher values of it. Therefore, the most dependent states are the Republic of Moldova with almost 90% of internal energy consumption being covered by imported commodities, respectively, Lithuania, Slovakia, Hungary and Latvia with these weights ranging between 76% and 50%. Other countries such as Ukraine, Poland, Czech Republic and Bulgaria are less dependent than previous, however due to large economies the quantities of imported energy is impressively high being an essential factor in assuring economic development. The countries with the lowest share of imported energy are Estonia and Romania, 7, 22 % and respectively 18, 56 % share of imported energy in the total consumption.

As a result, it was demonstrated that in the Eastern European region most of countries are highly dependent on energy imported from abroad this fact weakening the economic stability and influencing internal decision process. The further integration in this field is required in order to strengthen the buying and negotiation capacity in accessing international energy markets. Why is it so important? An integrated energy market of East and South East Europe would assure same energy prices for all countries. This fact means that the cooperation among the states will secure and make much more confident the states' capacity of obtaining lower cost energy. Thus, it will be reduced the influence of external environment upon the decision making process inside East and South East European countries, meaning much more economic and political independence.

3. The necessity of EES to diversify gas supplies

The Russian Federation is the largest supplier of energy resources towards European Union. Gas lever is one of the most powerful tools used by Moscow governmental circles to bend Eastern European geopolitical conjuncture according to its internal politico-economic interests. The gas consumption of European Union in 2013 has reached almost 541 Bcm (billion cubic meters), of which 161.5 Bcm (or 30% of total EU gas imports) were supplied by Gazprom, Russian Federation's largest state owned energy corporation. Detailed information considering the evolution of Russian Federation gas exports towards EU is available in table 2.

Table 2: Russian gas exports towards EU

Year	1973	1975	1980	1985	1990	1995	2000	2005	2010	2014	2015
Total	6.8	19.3	54.8	69.4	110.0	117.4	130.3	154.3	138.6	146,6	158,6

Source: Gazprom Export, available online at: <http://www.gazpromexport.ru/en/statistics/>

Due to its enormous quantities of energy supplies provided to the European Union, Russian Federation has important positions in negotiating political and economic issues, gas being an important instrument used to predetermine the outcome. Often, as a result of energy dependence, some of Eastern European Union states cede assumed responsibilities regarding external policy in order to assure unimpeded energy supply, the fact not corresponding to long run prosperity of the region as a whole¹⁰. The pressure from Russian Federation side is much more intense when speaking about associated countries to EU from East Europe, and namely Ukraine and Moldova. Russian Federation widely uses the gas supply instrument and gas prices in order to influence internal affairs of these countries according to its interests.

The market share of Russian Federation in the European gas market increased with 4% in 2013 comparing with 2012. However, the fact stimulating the most concerns is that there are no alternatives to Russian gas, especially in Eastern Europe in the nearest future.

As it can be observed from the table above, in 2015, Gazprom Export supplied 158.56 billion cubic meters of gas to European countries. It is interesting to underline that almost 18% of Russian Federation gas has been consumed by Eastern EU Nations¹¹. Furthermore, the Eastern and Central European natural gas market is particularly important for Russian Federation, not only, of its geographical proximity, but also of its economic interests in the region. The Russian “blue fuel” accounts for more than a half of gas consumption in the zone. In y. 2015, Gazprom Export Company sold 28.508 billion cubic meters of gas on this market¹², excluding EU associated partners. In this regard it should be mentioned that the export of Russian natural gas towards Ukraine in 2010 was of 36, 4¹³ billion cubic meters, this market accounting for almost 26% in comparison with Gazprom exports to EU market. As a result, it

¹⁰ [http://www.nytimes.com/2016/02/17/business/energy-environment/european-union-seeks-to-reduce-reliance-on-russian-gas.html? _r=0](http://www.nytimes.com/2016/02/17/business/energy-environment/european-union-seeks-to-reduce-reliance-on-russian-gas.html?_r=0)

¹¹ Information available online at: <http://www.gazpromexport.ru/en/statistics/>

¹² Information available online at: <http://www.gazpromexport.ru/en/statistics/>

¹³ Information available online at: <https://www.cia.gov/library/publications/the-world-factbook/geos/up.html>

can be underlined the considerable Ukrainian dependence upon Russian gas export alternative of which the country is not having.

Ukraine is not as vulnerable as it seems for the first time. It possesses important tools which can be also involved in determining price for energy supplies, which were poorly used so far by the country's governmental circles. So, around 50% of the gas imported in y. 2013 by the European Union from Russian Federation crossed Ukrainian territory, meaning 15%¹⁴ of the total EU consumed gas. The most important pipeline of Russian gas export towards EU is considered to be the "Brotherhood" pipeline (52, 5 Bcm in 2013) which is also mostly located in Ukraine.

In dynamics, however, it can be remarked that the role of Ukraine as a transit location has constantly decreased due to the construction of new pipelines such as North Stream and Blue Stream. Examining figure 2 it could be assessed how has changed the share of Ukrainian gas transit.

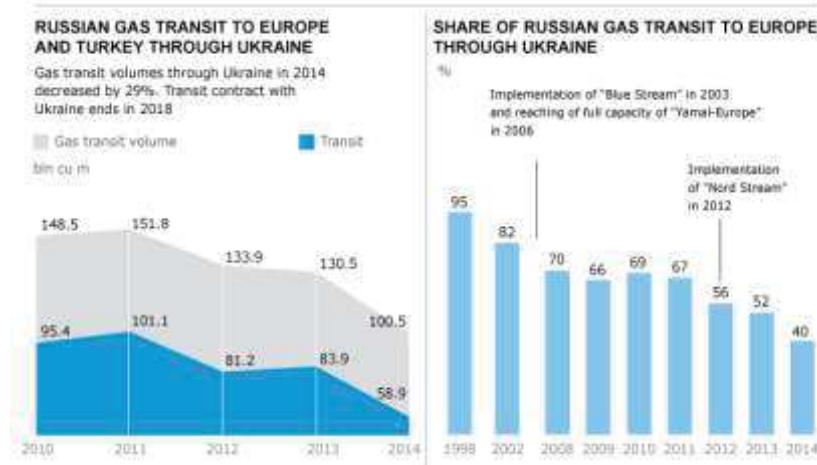


Figure 2: Russian gas transit through Ukraine: volume and share

Source: TASS Russian News Agency, available online at:

<http://tass.ru/en/infographics/7275>

The implementation of "Blue Stream" in 2003, the reaching of full capacity of "Yamal-Europe" pipeline in 2006 and the implementation of "Nord Stream" in 2012 are the main causes of reducing the transit of gas through Ukraine from 95 % share in 1998 to 52% in 2013.

The diversification of gas transit routes helped the Russian Federation to escape the Ukrainian factor in providing gas to European countries, but in essence it did not improved the situation as a whole in the region. The energetic dependence of Baltic, Central and South

¹⁴ Information available online at: <https://www.iea.org/gtf/#>

Eastern EU member countries has remained at high levels. The situation for newly associated states of EU, Ukraine and the Republic of Moldova, worsen due to the fact that these countries have lost an important negotiation instrument in determining the gas price and namely the transit. This factor in addition to little implication of EU in the negotiating of gas price motivated the instalment of unfair high gas price for these countries, which having no alternative had to pay more than the European consumers. This fact is a clear evidence of price discrimination intended to undermine the countries' economic security.

Thus, according to the International Trade Centre, EU countries most dependent on Russian Federation's gas in y. 2014 were: Bulgaria, Estonia, Finland and Latvia, 100% of gas imported was from Gazprom; Lithuania and Romania registered 97.63% and respectively 90% of imported gas coming from Russia; Slovakia had this indicator of 75.7%; Czech Republic 64.35%; Greece 58.31%, Hungary 57% and Poland 45%¹⁵. The situation in Ukraine is also complicated as the Russian Federation gas exports in this country covered 50% of internal consumption while for Moldova 100%¹⁶.

4. Gas-price manipulation in East Europe

Russian Federation widely uses its gas lever to influence the internal decision making process in Eastern European countries. This is particularly true when speaking about Ukraine and the Republic of Moldova whose gas prices dramatically increased since the beginning of 2000's. The situation worsened since these countries decided to integrate into the European Union. The Russian Federation began to fully undermine the countries' economic stability and energy security through charging unfair high price. It can be observed on figure 3 how the price on Russian gas supplies for Ukraine and Europe has evolved since 2006.

From the figure above it can be clearly observed that the Russian Federation overuses its monopolistic position and set unfair gas prices for Ukraine. This does not meet the requirements of modern energy markets, and it is evident the price discrimination of consumers. Thus, during 2006 to 2014 the market price for Russian gas for European consumers has increased with 52% in comparison with 411% for Ukrainian consumers for the same period. For Moldovan consumers, import gas price has increased from almost 190 USD in 2006 to 374

¹⁵ Information available online at: <http://qz.com/388148/the-eu-countries-that-depend-the-most-on-gazproms-russian-gas/> and <http://eur-lex.europa.eu/legal-content/EN/TXT/DOC/?uri=CELEX:52015DC0080&from=EN>

¹⁶ Information available online at: <http://anticoruptie.md/ro/investigatii/economic/independenta-de-gaze-a-republicii-moldova-si-a-ucrainei>

USD per 1000 cubic meter in 2014, this meaning a price increase of 97%¹⁷. So, it will be asked which of economies would resist such a dramatic increase of prices on energy supply? Is it impartial to charge to different consumers such different prices on same energy resources? This is why, the European energy integration should be further enlarged (Jirušek 2015).



Figure 3: Russian gas price for Ukraine and Europe

Source: Gazprom and RIA Novosti, available online at: <https://www.rt.com/business/russia-gas-price-ukraine-113/>

5. Further East European Energy Integration

One major step towards empowering the energetic security of South and East European countries was made when the Energy Community was created. It is an international energy organisation containing the EU, represented by the European Commission, and the countries of Albania, Bosnia and Herzegovina, Macedonia, Kosovo, Moldova, Montenegro, Serbia, and Ukraine - these countries being known as the 'contracting parties'. The Energy Community is considered to be an extension of internal energy market of the European Union towards South and East countries neighbouring the EU. When the Energy Community was established the following goals were set as primordial objectives needed to be achieved such as: attracting investment in power generation and energy networks to ensure stable and continuous supply; creation of an integrated energy market that allows for cross border trading, including building new infrastructure. Also it is oriented to: enhancing security of supply by making it easier for

¹⁷ Information available online at: <http://agora.md/stiri/939/grafic--cum-a-evoluat-pretul-gazului-livrat-de-gazprom-din-2008-si-pana-in-prezent>

countries to buy energy from supplying counterparts; improving the environmental situation in relation to energy and boosting competition at regional level to exploit economies of scale¹⁸.

The Energy Community comprises a wide range of sectors such as gas, petroleum, electricity, renewable energy, energy efficiency, security of supply, competition guaranteeing and environmental protection (Siddi 2015).

Further integration in energetic sector is needed in Eastern part of Europe in order to fortify the economic potential of this region. The European energetic integration would assure the possibility of diversification of energy supplies, to develop new infrastructure for consolidating the energetic potential of the region as a whole. The construction of new infrastructure is highly expensive which can be built only through international cooperation across Eastern Europe based on the assistance of the European Union. Therefore, resolving these issues requires resolute action at EU level. It should be taken into consideration the fact that indivisible parts of this EU energetic strengthening are Ukraine, Moldova and Georgia.

The European Commission is the EU institution which can accelerate the development of energetic infrastructure through financial resources consolidation in this field. The Commission can reinforce its support for these projects through the use of all available Community funding instruments, particularly the future European Fund for Strategic Investments (EFSI). Moreover, the energetic consolidation must fully involve all financial institutions of the European Union in order to foster the implementation of the plans.

As a result, the deeper European Energetic integration would improve the existing infrastructure capacities through providing new facilities of assuring the EU with cheap gas or oil. One of the most prospective directions is developing liquefied natural gas capacities or LNG. The LNG would be a potential solution to assure the European Union and its associated partners with natural gas in times of crises situations.

LNG prices have over recent years been higher compared to pipeline gas due in particular to high liquefaction, regasification and transportation costs. However, as the investments in this field will rise, the costs will be reduced due to more efficient technologies which will be implemented.

LNG facilities development is just one of the alternatives the European Union can implement in order to assure energy independence of its member countries. Other prospective directions which should be taken into account include the renewable energy generating

¹⁸ Energy Community goals are available online at: <https://ec.europa.eu/energy/en/topics/international-cooperation/energy-community>

capacities improvement, reliance on bio-fuels, nuclear energy and others. However, these are future directions which require huge investments.

The key to East European energy independence relies in consolidating national efforts to create a unique supranational organism empowered enough to assure lower priced and more stable energy supplies (Raines 2016).

6. Conclusion

The deeper energetic integration among East European States is a determinative condition to assure stable energy supplies throughout the region which is essential for economic development and competitiveness enhancement.

The European Union should further motivate consolidation of the national efforts in creating an efficient and progressive energy platform determined to efficiently promote the national interests of member countries in this area. This platform should represent a single economic organism in whose responsibility would be to assure unique market standards for all participating parties. Moreover, the platform should also cover the associated EU states, Ukraine, Moldova and Georgia. The membership of these states is required in order to develop potential energy corridors unifying the Caspian region countries with EU energy consumers (Smith 2010).

The Russian Federation immense share on the EU energy market could be viewed as a potential threat to EES energy security. Therefore, a consolidated European energy body including East European countries would be suitable response to huge Russian energy power. Moreover, the unique European energy body will assure stable supply for all member countries, because the price discrimination would be removed and general economic rules established.

Thus, from the perspective of the current research it was clearly shown how much the European Union, in general, and East European States, in particular, need to foster energy integration in the region. In this way it will be assured a stable base for economic development and social prosperity of the community as a whole.

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