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ECONOMIC DIPLOMACY IN THE ENERGY SECTOR IN EU´S EASTERN VICINITY[1]

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ABSTRACT

European Union's energy security strategy towards its Eastern European neighbours stems out of direct application of EU procedures, directives and regulations in non-EU states. Economic diplomacy tactics used by the European Union in its Eastern vicinity is a vector of positive social and environmental change, as modification of the energy mix and enhancing energy efficiency measures will contribute to these countries' successful energy transition and improvement of environmental indicators, and will lower end-user tariffs. In this article, we discuss the pattern observed during the past years in the implementation of provisions included in the Third Energy Package by non-EU contracting parties (specifically, Republic of Moldova and Ukraine) to the Energy Community. The impact of functional unbundling of energy operators and liberalization of energy markets in these Eastern Partnership member states is analysed. Russia's direct implication in internal matters related of the energy sector in these EaP countries is part of a bigger state of play, implemented over the past decades as a tool of geopolitical competition in this region. Overall, predictable business environment combined with harmonised legislation complying with the EU energy acquis ensures energy security and allows for political stabilization, thus tackling the challenges of Russia's influence in Eastern Europe.

Key words: Economic diplomacy, Energy security, Eastern Partnership, Republic of Moldova, Ukraine, Third Energy Package, Energy Community

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Introduction

The definition of the energy security concept has evolved during the past several decades, being continuously adapted to fit national, regional and global geo-political realms in a changing world. In the 1980's/1990's, energy security was defined as *"the availability of energy at all times in various forms, in sufficient quantities, and at affordable prices"* (European Environment Agency, 2017). Notions such as *"sufficient quantities"* and *"affordable prices"* are vaguely defined and may be suitable for a wide range of situations, depending on one's perspectives and interests in a given geographical region and historical time frame. More recently, energy security's definition has included ecological aspects, thus a definition widely accepted in 2001 defined it as *"the uninterrupted physical availability at a price which is affordable, while respecting environment concerns"* (Jewell, 2011).

Adaptation of the energy security concept to each country's geographical location, national energy policies and relationships (diplomatic, business, and political) with energy partners has generated the definition of a more localized and specific concept, of *"national energy security"*. The meaning of national energy security greatly depends on each state's (or region's) perspective, on its role as a producer, consumer or transit entity on the global energy map.

A wide range of indicators have been created and framed in order to measure the concept of energy security. The Asia Pacific Energy Research Center defines four major categories of such indicators that form the so-called Four "A's" of energy resources: Availability, Accessibility, Affordability and Acceptability (Kruyt et al., 2009). Also, five major threats to ensuring energy security (both on a global, and national scale) have been identified, as follows: technical disruption, natural disasters, military conflicts, terrorist attacks and digital disruption. The World Energy Council defined an Energy Trilemma index tool, which evaluates each country's ability to provide sustainable energy through three dimensions: energy security, energy equity and environmental sustainability (World Energy Council, 2016). In this complex of reciprocal inter-dependent concepts, the energy security is defined as "effective management of primary energy supply from domestic and external sources, reliability of energy infrastructure, and ability of energy providers to meet current and future demand". Thus, according to this most recent definition, ensuring the energy security does not rely only upon the resources' "availability at all times", but mainly on an effective management, reliable infrastructure, and concerns about

future demand. The need to ensure affordable and accessible energy for the population is part of the "energy equity" concept, while environmental sustainability encompasses for energy efficiency and development of renewable and other low-carbon energy sources.

In all times, global energy security has been closely linked to geopolitical considerations. In the 1980's, world prices on crude oil have been divided by a factor 3.5, while production of some Middle East countries (mainly, Saudi Arabia) has been multiplied by 4 (Umbach, 2014). This led to a sharp decrease in export revenues generated by the energy sector of USSR, and marked the starting point of the end of the Soviet Union and its influence over Eastern European socialist satellite states. According to the International Energy Outlook 2016, fossil fuel sources (coal, oil and gas) dominate the world's energy mix, representing 82.6% of the primary energy sources in 2016. Projections for 2040 indicate that fossil fuels will still have a dominating role, with 78.2% of primary energy sources in the global energy mix (U.S. Energy Information Administration, 2016). Thus, fossil fuel supply and prices, together with technological innovation in the field of oil and gas prospection and extraction will shape global energy security and geopolitical changes on a mid-term perspective of 2035 – 2040. The recent technological revolution of horizontal drilling and hydraulic fracturing led during the past several years to a spectacular increase in the shale gas and oil extraction in North America. Domestic oil production in the United States increased sharply, from 5.6 million barrels per day in 2011 to 9.2 million barrels per day in 2015, 51% of which has been extracted from hydraulically fractured wells (International Energy Agency, 2016). This combined with OPEC member states' unwillingness to decrease oil production, led to a dramatic fall of world prices on oil: from US$ 115 per barrel in the summer of 2014, to less than US$ 30 per barrel in January 2016. For countries heavily relying on export revenues in the energy sector, such as Russia or Venezuela, this significant fall in world prices on oil generated serious economic turmoil, as state budgets of these countries are based on oil prices largely exceeding the reality on the global market. In Russia's case, the respective amounts were of: US$ 117 per barrel in 2014, and US$ 100 per barrel in 2015 – in a country where 40% of the state budget comes from oil exports (Umbach, 2014).

World oil prices are capable to influence economic, political and social processes in countries and in entire regions, depending in an important manner on energy exports. At the same time, internal political instability and unrest in

producer countries (as is the case of countries concerned by the Arab Spring since 2011), or regional conflicts implying major producer countries (Russia's annexation of Crimea in 2014, and the incipient 'frozen conflict' in Eastern Ukraine) may shelter energy supply security. Energy security evolutions and geopolitics are therefore closely inter-dependent phenomena, both critical for the stability of the world economy.

1 European energy security strategy towards Eastern Europe

The European Union has among its objectives to establish a common energy policy and to build an interconnected and unified internal energy market, open for neighbouring countries as well as its members. In the last ten years, two EU Frameworks for Climate and Energy have been negotiated, debated, than adopted and partially implemented: the 2020 Energy Strategy and the 2030 Energy Strategy.

DG ENER has reported that significant steps have been taken towards the goals of the 2020 Framework, most notably between 1990 and 2013 with greenhouse gas emissions fell by 19%, while savings from energy efficiency increased 15.5% during the year 2013 and renewables form 15% of EU energy sources (on track to achieve the 20% target by 2020) (European Commission, 2017). Nevertheless, important improvements are still needed in order to achieve the 2030 Framework objectives (– 40% greenhouse gas emissions, 27% renewable energy, 27% energy efficiency savings): concentrate efforts on domestic energy production (today the EU is the world's largest energy importer), improve competitiveness of energy prices (that are higher than in the US), complete the unification of the internal energy market, ensure the transparency of gas markets and limit (or completely eliminate) overdependence on a single supplier of energy resources. Key indicators allowing evaluation of the degree of implementation of the 2030 Framework include: diversification of imports and increase of the share of indigenous energy, completion and construction of smart grids and connections between member states, reduction of energy price differentials, enhancing intra-EU coupling of energy markets, stimulation of competition and market liberalization, and technological innovation. **Jean-Claude Juncker**, President of the European Commission, expressed in 2015 the will to institute a new European Energy Union, as a means to reorganize and reform EU's energy policy (Juncker, 2015). The paramount goal of such a Union would be to provide for every

European a secure, sustainable, competitive and affordable energy. The means to achieve this goal form the basis of five guiding dimensions: ensuring energy security (mainly concerning supply), full integration and liberalization of the EU internal energy market, improvement of energy efficiency measures, transition towards long-lasting low-carbon society, and stimulation of an Energy Union for Research, Innovation and Competitiveness.

Ensuring security of supply (i.e. a lesser degree of dependence on energy sources from outside the European Union) is based on three cornerstone directions: increase of transparency on gas supply; diversification of energy sources, supplies and routes; and strengthening EU's role on global energy markets. A series of developments in the Eastern European region over the past decade (since 2007) have triggered EU's progress in moving towards a common energy policy and a unified internal energy market. Russian – Ukrainian 'gas wars' of 2006 and 2009, both originating from Ukraine's external politics pendulum between the 'pro-European' or 'pro-Russian' orientation, have clearly shown that energy supply security is closely related to political stability in energy producing and transition countries. While during the 13-day Russia-Ukraine gas crisis of 2009 the European Union had little or no alternative supply options, the implementation of energy diversification measures (energy mix, gas imports supply, new infrastructure projects, energy efficiency measures, etc.) in the following years allowed considerable decrease of EU's energy dependence on Russia. Thus, in 2012, for the first time, EU-28 imported more gas from Norway than from Russia (nevertheless, Russia regained its dominant position the following year). Overall dependence decreased over the last two decades, from 61% in 1995 to 32% in 2012 (Umbach, 2014).

EU's will to extend its energy policy in Eastern European countries led to the creation of a regional international organization – the Energy Community (previously called Energy Community of South-East Europe), counting as members the EU member states plus 8 countries (including 6 of the Western Balkans, plus two Eastern Partnership member states – Ukraine and Moldova). The Energy Community is an expression of EU's political will to deepen cooperation in the energy sector with its Eastern neighbours, as part of its strategy to reduce energy dependence on Russia. The implementation of the Third Energy Package in member states is the paramount goal for the next several years. Diversifying the energy supply, enhancing of energy efficiency measures, stimulating the development of the renewable energy sector – these are the cornerstones of the Energy Community. The common European energy

market will allow the accession of the Contracting Parties through restructuring and unbundling-Soviet-era energy operators, transposition of EU legislation, building new interconnections (gas and electricity) and the continuous liberalization of energy markets. The Energy Community demonstrates EU's capacity to "reproduce" its own institutions and procedures in non-member states, outside its borders (Renner, 2009). Moldova and Ukraine expressed their intention to join the Energy Community in 2008. After a period of negotiations, and following the two states' firm commitment to reform their gas systems through by transposing the EU Gas Directive into their national legislation, the two countries joined the organization in May 2010 and in February 2011, respectively.

Geopolitical evolutions since 2014 in the Eastern European region, namely annexation of Crimea by Russia, Russian policies of destabilization of Eastern Ukraine aiming at its transformation in a long-lasting 'frozen conflict' have conducted to the instauration of Western economic sanctions, with a series of repercussions on energy transactions between the EU and Russia. On one hand, economic sanctions against Russia do hinder EU's energy supply security by economically weakening one of the major suppliers; on the other hand they stimulate EU's efforts of diversification of supply (both geographically by relying more on non-Russian oil and gas, and by diversification of energy sources, favouring growth of the renewable energy sector). It should be noted that several years before the Russia-Ukraine conflict started in 2014, the Ukrainian allegedly pro-Russian president **Viktor Yanukovych** favoured the elaboration of two important national strategies: the diversification and gas independence strategy (2012), and the energy strategy (2013). Both documents provided for a series of extensive measures aiming at reducing Ukraine's dependence on Russia: important gas savings in the household and industrial sectors, increase of national gas production (both conventional, from offshore Crimean gas reserves and unconventional, from shale gas), and extensive use of coal and nuclear power in the energy mix (Umbach, 2016). Annexation of Crimea and the military conflict in Eastern regions of Ukraine (counting a large number of coal mines) have considerably undermined the implementation of the 2013 energy strategy. Moreover, internal political instability, high level of political corruption, the on-going 'frozen conflict' in the East of Ukraine and fierce opposition of local environmental activists – are serious barriers on the way of EU or US shale gas corporations' entrance into the Ukrainian energy sector. Two major European energy companies (Royal Dutch Shell and ExxonMobil) have abandoned plans

to invest in Eastern shale gas fields, and the American company Chevron gave up on its project to invest in shale gas west in the Ukrainian Western regions. In March 2014, a consortium led by ExxonMobil (together with OMV and Shell) suspended negotiations with the Ukrainian government in view of offshore gas projects in the Black Sea.

In 2013, 53% of Russian giant Gazprom's gas exports to the European Union transited through Ukraine's pipeline network. After a series of threats addressed by Russian President **Vladimir Putin** to EU member states in April 2014, clearly indicating the possibility of cuts in gas supply, the European Union adopted an energy security and diversification strategy on May 28 of the same year. The strategy spells out a series of short-term (9 months), medium-term (1 to 5 years) and long-term (more than 5 years) decisions and actions to be taken in case of a new energy supply crisis. Thus, short-term measures include: completion of a unified internal energy market, efficient implementation of emergency and solidarity mechanisms, and protection of strategic infrastructures; medium-term goals refer to a gradual increase in EU domestic energy, moderation of energy demand (enhanced energy efficiency measures), and a continuous diversification of external supplies; while long-term measures are based on coordination of national energy policies and formulating common positions in external energy policy. In order to assess possible consequences of a new supply disruption during the winter season, the European Commission has proposed to perform a stress test of the EU energy system. An Emergency Preparedness Plan and Emergency Response Plan have been developed by member states, allowing improvement of resilience in case of future supply shortages (EU Energy Security Strategy, 2017).

In the past several years Ukraine's gas imports from Russia diminished drastically, falling to a historical low point of 6 billion cubic meters (bcm) in 2015, from an already low amount of 26 bcm in 2013 (to be compared with 51 bcm in 2007). This considerable reduction of Ukraine's energy dependence on Russia may be explained by the conjunction of two factors: in times of harsh economic crisis (mainly due to the collapse of the industrial sector in Eastern regions of the country) the demand for gas is at an all-time low level, together with EU's efficient application of reverse-flow techniques allowing Ukraine to receive gas from Central European countries, mainly Slovakia, Poland and Hungary. In the near future, EU's "North-South Gas Corridor" will connect Liquefied Natural Gas (LNG) terminals situated in Lithuania and Poland to those in Croatia, offering Ukraine new possibilities to receive gas through interconnections with Poland

and Slovakia. In turn, the European Union is interested in using Ukraine's underground storage facilities, the majority of them being situated not far from the country's borders with the European Union. The total capacity of these facilities is of 32.5 bcm, but their actual use does not exceed 50% at present (Umbach, 2016). Storage of European gas in Ukraine's underground storage facilities will enhance energy security of EU's Central European member states, which are actually the most subjected to Russia's dominating position in the energy (gas) sector in the region.

Republic of Moldova's degree of energy dependence on Russian Federation is amongst the highest in the world, as close to 100% of the country's gas is bought from Gazprom. Insignificant amounts of gas come from Romania, flowing through the Iasi-Ungheni interconnection, inaugurated in 2014. Fifty percent of shares of the Moldovan national gas operator MoldovaGaz have been 'offered' to Gazprom in 1997 in exchange for the country's historical debt on the gas bills towards the Russian supplier. Another 13% of shares, officially owned by the country's secessionist region of Transnistria (yet another Russian-built 'frozen conflict', since 1992), are also managed by Gazprom. Nowadays, the reign of Gazprom in the Moldovan energy sector is uncontested, as MoldovaGaz is not only the unique importer and supplier of gas, but also a holding company owning Moldova's main TSO (Transmission System Operator) and DSO's (Distribution System Operators). The situation in the electricity sector is quite similar, as only 18.3% of the electricity is produced on the right bank of the Dniester River, controlled by the Chisinau constitutional authorities (Morcotîlo, 2015). The remaining 81.7% are produced by the "Moldavskaia GRES" power plant, situated in Transnistria and 100% fuelled by Gazprom's gas. By concluding an Association Agreement with the European Union in 2014, the Moldovan government has assumed an obligation to reform its energy sector, mainly by implementing its commitments as a contracting party to the Energy Community. Transposition of the Third Energy Package would allow unbundling and effective liberalization of the Moldovan energy market, thus creating an understandable and predictable environment, able to attract foreign investments so much needed for large infrastructure projects (Dusciac et al., 2016). Among these projects, the completion of a large capacity gas pipeline Ungheni-Chisinau and the inter-connection of the Moldovan electricity grid to the Romanian national network will considerably enhance the country's energy security. Interconnection with Romania will also lead to a significant decrease of end-user tariffs in Moldova, as Romania produces excess electricity at lower prices (Dusciac, 2015).

Chisinau bought electricity from Bucharest until 2014, when Romania joined ENTSO-E and integrated into the European electricity market and power system, thus the electricity grids connecting the two countries were decoupled due to different frequencies in the power systems of Romania and Republic of Moldova. Two technical solutions could be applied in order to reconnect the Moldovan electricity system to that of Romania: synchronous interconnection or asynchronous interconnection. A consortium of TSO's belonging to ENTSO-E conducted a feasibility study of the synchronous interconnection of electricity grids of Ukraine and Moldova with ENTSO-E (ENTSO-E, 2015). The conclusion of the study stated that the interconnection is feasible with no need for major additional infrastructure. However, synchronous interconnection is a lengthily and costly process. For comparison, the Baltic States applied to join ENTSO-E only in October 2018, and the deadline for completion of the synchronization is 2025. The total estimated cost of the project is 770 – 960 Million euros (CEEP, 2018).

An interconnection that can be achieved more rapidly, in only 2 – 3 years, is the asynchronous interconnection. It implies the use of Back-to-Back (BtB) substations, able to interconnect power systems with different frequencies. The South interconnection seems to be the most feasible one due to the 400 kV cross-border power line Isaccea – Vulcanesti and also to the 600 MW of power available for export on the Romanian side. This interconnection will be able to cover 70 – 80 % of Moldova's electricity consumption of about 4 TWh/yr (Expert Grup 2017).

EU's continuous pressure on the Moldovan government to reduce political corruption and efficiently implement its Association Agreement commitments in the energy sector will contribute to a gradual interconnection of the Moldovan energy system to the EU system (mainly through energy interconnection with Romania), and reduce overall energy dependence on Russian Federation.

2 Russian energy security strategy towards its neighbours

The Russian Federation is an important economic global player and energy-rich country that has a dominant position on the energy market mostly in Eastern Europe – position that is used in order to pursue its geopolitical objectives and maintain its sphere of influence in the post-soviet countries. From the Russian viewpoint, the concept of energy security is above all related to ensuring the security of demand. For example, selling large volumes of

energy resources (mainly gas and oil) to the EU member states has never been a process limited to merely commercial and economic aspects. During the past quarter of a century, gas and oil contracts have been a powerful tool of political pressure used by Russia towards ex-Soviet states, but also in relations with larger Central and Western European countries.

In order to be able to compare properly the Russian model of political governance with the European one, it should be highlighted that the Russian energy sector emerged from the privatization process that reached the peak in 1996, when the oil monopolist was divided among multiple companies and Gazprom was put under indirect state control (Balmaceda, 2013). However, the state of affairs changed radically and the Russian energy sector became centralized in the following years. Today, Gazprom is the largest company in Russia; it has a monopoly over the gas pipelines and owns approximatively 90% of the gas production. The most important characteristic of this giant is that the State owns 50% of its share, therefore the Russian energy sector is mostly owned and controlled (including politically) by the State (Woehrel, 2009). The separation between Russian private and state sectors in the field of energy very thin, almost inexistent.

Regarding the post-Soviet space, Russia has a very specific understanding about the "Near Abroad" that is desired to stay under the Moscow's "sphere of influence" (Vasilyan, 2010). Thus the transposition of the energy acquis through the European instruments ENP and the EaP are seen by the Kremlin as a threat to the area that is of vital interest from the geopolitical, economic and commercial standpoint (Umbach, 2011).

The Russian Federation is reacting to the EU policy through different means, among these – buying transit infrastructure, negotiating bilateral agreements with the EU Member States, signing long term agreements with the Caspian producers in order to control their exports, or designing new energy projects such as Nord Stream 2, Altai, South Stream and Turkish Stream.

In order to maintain control over the transit pipelines as well as to have secure access to the Caspian resources, Russia "economized" its foreign policy and tried to use energy as a leverage (Freire, 2012) through authoritarian methods: by selling subsidized gas to energy-poor countries, and/or by owning transit and transport routes in energy-rich countries (Kjaernet, 2010). The Georgian example from 2005 when Gazprom conditioned the neighbouring country either to pay a much higher price for Russian gas or to sell its energy networks, illustrates how energy is used as a pressure tool. Armenia is another

neighbour that was forced indirectly to sell some of its energy infrastructure in exchange for maintaining subsidized energy prices. Since then, Gazprom holds the Iranian-Armenian pipeline and restrains Armenia to use an independent transit route, which could bypass Russia. Regarding Republic of Moldova's gas market infrastructure, Gazprom directly owns 50% of the shares, while 13% is owned indirectly (through Transnistria's authorities) by MoldovaGaz, a vertically-integrated company that is sabotaging the implementation of the Gas Directive from the Third Energy Package and challenging before the Court the most important decisions of the National energy sector Regulator (European Bank for Reconstruction and Development, 2017). Gazprom allowed Moldova the accumulation of over six bn. USD in debt for gas supply, thus creating a supplementary tool for political dominance (Interview with Mr. Alexandru Săndulescu, 2017).

Energy corruption is yet another instrument used by Russia in order to influence its neighbours, thus the transposition of the energy acquis into EU's Eastern vicinity countries' national legislation would lead to a considerable decrease of this negative phenomenon. As a consequence, the "middle men" will disappear from the energy market schemes. Most often, these are the local oligarchs, who use to purchase gas (and other energy resources) from the Russian Federation at a price lower than the market price, then to sell it at a competitive price to Ukrainian authorities, thus creating an artificial so-called 'win-win situation' for both parties (Radio Free Europe, 2017).

An example of geopolitical use of commercial processes by the Russian giant Gazprom is the so-called '*market partitioning'*, i.e. selling gas to different countries at different prices, as a way to enhance a larger-scale geopolitical approach in relationships with these countries, and with the European Union as a whole. For example, Ukraine and the Baltic States purchase Gazprom's pipeline gas at prices considerably higher than Germany and other Western European countries, despite longer transport distances for the latter. Before 2014, according to a long-term (valid until 2042) lease agreement, Russia located its Black Sea naval military base in Sevastopol (Crimea), in exchange for a 'discount' of US$ 100 per thousand cubic meters of pipeline gas. Despite this discount, the price of Gazprom's gas sold to Ukraine was amongst the highest in the world, with no realistic means for the Ukrainian government to oppose this state of play.

The introduction of *'take-or-pay'* clauses (EU consumer countries are forced to pay even for unused volumes of delivered gas) by Gazprom in long-term

supply contracts aimed at enforcing Russia's geopolitical leverage on EU countries, and secure a high level of export revenues, crucial for the balancing of the Russian state budget. Through an efficient integration of the internal energy market, EU member states managed to gradually eliminate the 'destination clauses' (interdiction to re-sell the unused gas volumes to third parties, once the bill is paid) from long-term contracts with Gazprom. By these provisions contained in long-term supply contracts, Russia aims at maintaining and even deepening Europe's dependence on Russian energy supply. Nevertheless, in several years, these provisions turned against Gazprom, and contributed to the significant decrease of Russian 'gas influence' over its neighbours, mainly over Ukraine. Thus, in the context of economic crisis and industrial stagnation in several EU member states, the demand for Russian gas diminished significantly, generating a surplus of gas, notably in Germany. A series of new compressor stations built on EU portions of gas pipelines permitted to reverse flows from the West to the East. The first billions of cubic meters of 'German' gas were sold by the German energy giant RWE directly to Ukraine in November 2012, one year prior to the beginning of the Euromaidan in Kiev. Following Gazprom's insistent protests over these new practices, RWE argued that once the negotiated price has been paid to the supplier, it can decide on its own what to do with this gas (Dusciac et al., 2016). During the following several years, other reverse-flow interconnections with Hungary, Slovakia and Poland made it possible for Ukraine to drastically diminish the volume of Russian imported gas, from 45 bcm in 2011 to 6 bcm in 2015 (Umbach, 2016). In 2012 the European Commission launched an anti-trust case against Gazprom, on grounds of market partitioning practices (difference of prices between countries, not based on realistic tax market differences), artificial barriers to supply diversification (by preventing third parties from using its pipelines), and outdated oil-price indexation of gas prices (Umbach, 2014).

The energy dimension of geopolitical evolutions in Russia-Ukraine relations since 2014 is often neglected by political observers. Despite this fact, the energy arguments do form a 'hidden face', explaining much of Russia's action in the region, and its long-term ambition to continue playing a decisive role in the European continent's energy realm. Ukraine's energy security strategy of 2013 indicated extraction of gas from offshore Crimean gas reserves, and extensive use of domestically extracted coal as ways to decrease the country's dependence on external supply. After the Russian military aggression of 2014, annexation of Crimea (estimated gas reserves of 4 – 13 trillion cubic meters of

gas, one of the largest solar energy parks in Europe and tremendous potential for wind energy) and transformation of Eastern regions of Ukraine (where the major coal mines are situated) into a 'frozen conflict' zone have hindered the applicability of these provisions of the energy strategy. The Crimean branch of the national Ukrainian gas operator NaftoGaz, Chornomor NaftoGaz has been rapidly 'nationalized' and subsequently fully incorporated into Gazprom. In the same period, Ukraine's signature of the economic chapters of the Association Agreement with the European Union has triggered a series of fundamental reforms of the country's energy sector. Ukrainian operator NaftoGaz's increased transparency concerning the volumes of inflow and outflow gas on the Russian and EU borders, reported and published on a daily basis on the European Network of Transmission System Operators for Gas (ENTSO-G) allowed to oppose Russian accusations on illegal extraction of gas from the Russian gas pipeline transiting Ukraine. In parallel, the adoption of EU guidelines and regulations in the energy sector accelerates the implementation of the Third Energy Package provisions in Ukraine. Recent modifications of internal laws – the gas market law of April 2015 and the unbundling law for NaftoGaz (transport and storage) of July 2015 – are rapidly and efficiently reforming the country's energy sector.

Unfair pricing policies and 'pipeline diplomacy' pirouettes are far from being the limits of Kremlin's divide-and-rule strategy towards Europe. In addition, during the last decade Gazprom has begun acquiring and/or controlling critical energy (particularly gas) infrastructure in EU member states (Umbach, 2014). Potential long-term implications, both geopolitical and strategic, are still widely neglected by European decision-makers.

In the new geopolitical situation in Eastern Europe in the context of recent developments since 2014, Russia is seeking new ways to ensure the security of demand and transport of energy resources towards its Western partners. Despite a significant decrease of volumes transited through its sector of the gas pipeline over the last decade, Ukraine will still conserve its transit status for Russian gas exports to the European Union until and beyond 2019, as agreed upon at the European Council summit held in the spring of 2015. This will allow the Ukrainian side to at least partially conserve gas transit revenues. In the summer of the same year, Russia declared the start of negotiations with Ukraine for an extension of the transit contracts by at least few years, in spite of previous declarations regarding Gazprom's "lack of interest" in further working with Ukraine as a transit country for Russian gas. Nonetheless, Russia's search

for alternative routes of transit bypassing Ukraine or the EU (when possible) pushed it into developing several large infrastructure projects: the building of two additional pipelines through the Baltic Sea (Nord Stream 2), and to resume the suspended Turkish Stream pipeline through the Black Sea (in order to bypass Ukraine, Romania and Bulgaria).

More than half of the transiting capacity of Russian gas westwards passes through the Ukraine – the country's estimated maximum transit capacity is of 175 bcm/year. This figure is to be compared with an estimated maximum capacity of 134 bcm/year for transit routes that do not cross Ukrainian territory (Kocak, 2016). Following diplomatic and economic confrontation with this country since 2014, Russia is promoting alternative transit routes, bypassing Ukraine's territory and reaching directly Gazprom's clients in Germany, Italy, France and other European countries. The accomplishment of Nord Stream 2 would deprive Ukraine from an estimated 2 Billion USD of yearly gas transit revenues, i.e. 2 – 3 % of the country's GDP (Zachmann, 2018). However, the future of the Nord Stream 2 pipeline is uncertain, especially after a recent decisive support granted by France to an EU proposal to regulate the project according to EU internal energy market laws. In doing so, France is joining the camp of active opponents of Nord Stream 2, backed by US diplomatic efforts (Gotev, 2019). Clearly viewed as a measure of retaliation against Russia for its "aggression against neighbouring states and its meddling in our democracies", the US-led efforts to shut down Nord Stream 2 seem to have paid off, at least for the foreseeable future.

The Southern route designed to bypass the Ukraine – initially the South Stream pipeline – was abandoned in 2014 after being rejected by the European Commission on grounds of single market laws violations. Four years later, it has been re-designed as Turkish Stream and launched in November 2018, with an entry point on the European continent through a hub situated just West of Istanbul. Following this development, the Bulgarian government voted in favour of the extension of its pipeline to connect with the future Turkish Stream when the pipeline becomes fully operational in 2022. However, the Bulgarian project would not receive EU regulatory and financial support unless the gas transported through Turkish Stream would be sold in the Balkan gas hub in Varna, in free competition with the gas from EU-backed pipelines, like the Southern Gas Corridor (Azerbaijan) and EastMed (Israel) (Rettman, 2018).

Conclusions

European Union's energy security strategy towards its Eastern European neighbours stems out of direct, transparent and efficient application of EU procedures, directives and regulations in non-EU states. Implementation of provisions included in the Third Energy Package by non-EU contracting parties (specifically, Republic of Moldova and Ukraine, in this article) to the Energy Community will bear a series of foreseeable positive consequences on these countries' energy sector, and overall economic situation. Functional unbundling of energy operators and liberalization of the energy market with its subsequent integration with the European energy market will create the proper set of conditions, able to attract massive foreign investment in national economies. Resulting modernization of the energy infrastructure would lead to a decrease of end-user tariffs and stimulate the development of renewable energies. Gradual modification of the energy mix and enhancing energy efficiency measures will contribute to these countries' successful energy transition and improvement of environmental indicators. Overall, predictable business environment combined with harmonized legislation complying with the EU energy *acquis* will efficiently ensure energy security and allow for political stabilization and of the region.

On the other hand, Russia's aggressive strategy aims to ensure its own security of demand, regardless of political and economic liberty of its neighbours, and leads to a series of geopolitical collisions generating severe political pressure and interference with internal political matters in countries of the Eastern European region. Disregard of basic rules of conduct of business on the international often yield results that are the opposite of the initially expected. Thus, in spite of apparent economic gains subsequent to the annexation of Crimea in 2014, such as control over offshore gas fields, Russia is losing Ukraine as its major external partner for gas exports. Bearing in mind the Ukrainian precedent, a series of other European countries are on track to fully annul or to considerably diminish their dependence on Russian energy. Use of commercial matters as a geopolitical weapon against countries seeking political and economic freedom cannot be a sustainable method for responding to one's regional or continental ambitions.

Transposing EU legislation in the energy field has already shown positive results in times of harsh political crisis in Ukraine, and is a valid way to counterfeit Russia's hybrid warfare in its Eastern regions. Despite political uncertainties and financial turmoil, partial transposition the EU energy legal

framework is ongoing in the Republic of Moldova, leading (at least theoretically) to a diversification of energy supply.

Diminishing dependence on Russian energy and therefore ensuring energy security of supply needs several concrete actions. In a short-term and mid-term perspective, a common EU pooling of gas resources may be able to bypass Russia's unfair pricing policy. Creation of such a 'common reserve' of gas would put Russia in a difficulty to further justify different prices to one same buyer. Another measure that needs to be agreed upon is a common vision and strategy concerning critical energy infrastructure that should remain under the control of EU member states national authorities. Moreover, consensus needs to be achieved on EU member states' participation in and financing of large energy infrastructure projects, especially in neighbouring countries. A common EU strategy should be applied regarding large pipeline projects, based on long-term consequences and geopolitical impact of such endeavours. In a long-term perspective, the EU should include its associated neighbour states into the common effort of formulating common positions and speaking out with one voice to external energy suppliers, among which Russia has proven to be by far the most economically unviable and politically unpredictable.

References:

BALMACEDA, M. M. 2013. *The Politics of Energy Dependency, Ukraine, Belarus and Lithuania between domestic oligarchs and Russian pressure*. Toronto: University of Toronto, 2013

CEEP – Central Europe Energy Partners 2018. *Policy Paper: Cross-border energy cooperation in Central Europe. Towards flexible, secure and sustainable regional energy markets.* Accessible online https://www.ceep.be/www/wp-content/uploads/2018/11/CEDE-2018-policy-papper.pdf

DUSCIAC, D. 2015. Energy dimension of the Republic of Moldova – Romania relations: realities and collaboration perspectives. In *Romania: Democracy, Development, Dignity* pp. 133 – 138. Bucharest: Ed. GRAFOART, 2015.

DUSCIAC, D. *et al*. 2016. EU – Russia and the energy dimension of the Eastern Partnership. In *CES Working Papers*, Volume 8, Issue 2, 2016. pp. 251-268. Accessible online http://ceswp.uaic.ro/articles/CESWP2016_VIII2_DUS.pdf

ENTSO-E 2015. *Feasibility Study on Synchronous Interconnection of Ukrainian and Moldovan Power Systems to ENTSO-E Continental Europe Power System.* Accessible online https://docstore.entsoe.eu/Documents/SOC%20documents/Regional_Groups_Continental_Europe/Joint_operational_programme_Romania_Ukraine_Moldova_2007-2013.pdf

EU Energy Security Strategy. 2017. Accessible online https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/energy-security-strategy

EUROPEAN BANK FOR RECONSTRUCTION AND DEVELOPMENT, 2017. *Moldova Country Profile*. Accessible online: http://www.ebrd.com/downloads/legal/irc/countries/moldova.pdf

EUROPEAN COMMISSION. 2017. *Directorate General for Energy*. Accessible online https://ec.europa.eu/energy/

European Environment Agency (EEA). 2017. *Multilingual glossary.* Accessible online http://glossary.eea.europa.eu/terminology/terminology_sources_html

Expert-Grup, 2017. *The Bridge over the Prut, version 2.0: the electricity interconnection between Romania and Moldova.* Accessible online https://www.expert-grup.org/en/biblioteca/item/1365-podul-de-peste-prut-varianta-20

FREIRE, M. 2012. Russia's Energy Politics in Eurasia: Empowerment or Entrapment. In *KANET, R. – FREIRE, M. 2012. Competing for influence: The EU and Russia in Post-Soviet Eurasia. Dordrecht, 2012, p. 13*

INTERNATIONAL ENERGY AGENCY, 2016. *World Energy Outlook 2016 (Executive Summary).* Accessible online http://www.iea.org/publications/freepublications/publication/WorldEnergyOutlook2016ExecutiveSummaryEnglish.pdf

GOTEV, G. 2019. *Nord Stream 2 in dire straits after French U-turn.* Accessible online https://www.euractiv.com/section/energy/news/nord-stream-2-in-dire-straits-after-french-u-turn/

Interview with Mr. Alexandru Săndulescu, 2017. *European Union High Level Advisor on Energy Policy*. Chisinau, 2017.

JEWELL, J. 2009. The IEA Model of Short-term Energy Security (MOSES). Primary Energy Sources and Secondary Fuels. In *International Energy Agency Working Paper*, 2011.

JUNCKER, J.C. 2015. Energy is as important for Europe now as it was in the 1950's. In *Horizon. The EU Research & Innovation Magazine*. Accessible online https://horizon-magazine.eu/article/energy-important-europe-now-it-was-1950s_en.html

KJAERNET, H. 2010. Azerbaijani-Russian relations and the economization of foreign policy. In *OVERLAND, I. et. al. 2010. Caspian Energy Politics: Azerbaijan, Kazahstan and Turkmenistan. New York: Routledge, 2010, p. 151*.

KOCAK, K. A. 2016. *EPRS (European Parliamentary Research Service) Study: The quest for natural gas pipelines*, pp. 12. Accessible online http://www.europarl.europa.eu/RegData/etudes/STUD/2016/586626/EPRS_STU(2016)586626_EN.pdf

KRUYT, B. *et al*. 2009. Indicators for energy security. In *Energy Policy*, vol. 37, issue 6, 2009. Pp.2166-2181.

MORCOTÎLO, I. 2015. The EU – Moldova Association Agreement: opportunities for the modernization of the energy sector. In *Central European Energy Partners,* 2015. Accessible online http://www.ceep.be/eu-moldovaassociation-agreement/

RADIO FREE EUROPE, 2017. *Will Ukraine's orange revolution be undone by energy deals?* Accessible online https://pressroom.rferl.org/a/1105909.html

RENNER, S. 2009. EIoP, The Energy Community of South-East Europe: A neo-functionalist project of regional integration. In *European Integration online Papers*, Vol 13, 2009. Pp. 1-21.

RETTMAN, A. 2018. *Déjà vu: Bulgaria pipeline to face EU scrutiny.* Accessible online https://euobserver.com/foreign/143675

U.S. ENERGY INFORMATION ADMINISTRATION. 2016. *International Energy Outlook 2016, Table: World total energy consumption by region and fuel.* Accessible online https://www.eia.gov/outlooks/aeo/data/browser/

UMBACH, F. 2011.Energy Security in Eurasia: Clashing interests. In *DELLECKER, A. – GOMART, T. 2011. Russian Energy Security and Foreign Policy. New York: Routledge, 2011, p. 36*.

UMBACH, F. 2014. Energy: EU can beat Russia's threat of new gas supply cuts. In *GIS: Geopolitical information service*, 2014.

UMBACH, F. 2014. Energy: Russia's gamble over Crimea could deliver major energy rewards and influence. In *GIS: Geopolitical information service, 2014.*

UMBACH, F. 2014. Energy: The geopolitical impact of falling oil prices. In *GIS: Geopolitical information service*, 2014.

UMBACH, F. 2016. Ukraine's energy security and energy foreign policies on the way to Europe. In *European Security & Defense*, 2016.

VASILYAN, S. 2010. A Cacophony: The EU's Security Policy Towards the South Caucasus. In *HENDERSON, K. – WAEVER, C. 2010. The Black Sea Region and EU Policy. The challenge of Divergent Agendas. Ashgate, 2010*.

WOEHREL, S. 2009. Russian Energy Policy Towards Neighboring Countries. In *US Congress Research Service*, 2009. Accessible online https://fas.org/sgp/crs/row/RL34261.pdf

World Energy Council, 2016. "*Energy Trilemma 2016" Report.* Accessible online https://trilemma.worldenergy.org

ZACHMANN, G. 2018. *The clock is ticking: Ukraine's last chance to prevent Nord Stream 2*. Accessible online http://bruegel.org/2018/01/the-clock-is-ticking-ukraines-last-chance-to-prevent-nord-stream-2/