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Summary

This paper discusses and contrasts the proposals for an Energy Union in the European Union and its impact on its security-of-gas-supply. Based on an examination of historical East-West gas trade and by revisiting energy security concepts, the paper analyzes how problems with dependency on energy imports can be reduced. The paper discusses how the positions of Central and Eastern European countries (CEEC), where security challenges are especially evident, and the positions of countries in Western Europe, where they are less acute, interact and conflicts in making a common EU energy security policy. The constraints to EU market liberalization and its intentional and functional linkages to security-of-gas supply, and whether supplements and more interventionist measures are needed, are discussed. The paper argues that as long as Russia does not behave according to Western regulatory standards, and the transit routes remain unpredictable, the energy security issue must be addressed by measures within EU jurisdiction. Improved interconnectedness within and to the CEEC appears to be the central issue that would mitigate, albeit not solve, contemporary security problems. A more comprehensive infrastructure would increase flexibility for gas transportation, allow for supplies to come from other sources, harmonize contractual terms, and improve the negotiating power towards Gazprom. As it would also bring the internal energy market closer to reality, it could in addition help the Energy Union to become a unifying project merging the interests of Western Europe and CEEC despite their different security-of-gas supply concerns with Russian gas.

Keywords: Energy Union, Natural Gas, Russia, Gazprom, Energy Security

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Introduction

The Ukrainian crisis has again brought focus on European Union (EU) dependence on Russian gas and Gazprom. In 2014, Poland's former Prime Minister Donald Tusk, now EU President, proposed the creation of an *Energy Union* to strengthen policy and expand goals and measures to meet security-of-gas supply concerns. Russia currently accounts for as much as 34 percent of EU gas imports. Latvia, Bulgaria, Estonia, Finland, and, until recently, Lithuania[1] import 100 percent of their gas requirements from Russia. In these countries, Russian gas represents about 20 percent of the total energy consumption. Other EU countries are less dependent, but Russian gas still plays a significant role in countries such as Austria, Germany, the Czech Republic, Slovakia, Hungary, Poland, Albania, Greece, and the republics of the former Yugoslavia. In each of these countries, Russian natural gas represents over 10 percent of total energy consumption. In individual sectors the reliance can be far greater. To lose possibly 10 to 20 percent of an energy supply overnight in a crisis will entail serious social acute problems. In addition, the long-term implications of being dependent on monopolist, single-supply routes and natural gas as a dominant energy form can be detrimental to a country's welfare and independent policy making.

Gazprom often seeks bilateral agreements, setting prices based on what market position and political relations allow in each case. We have seen this especially clearly in the relations with Ukraine, but also with other Central and Eastern Europe countries (CEEC) left mostly with supply routes from Soviet Bloc times. Many countries in the CEEC consider the one-sided dependency on Russian gas as a security problem that they place on top of the political agenda, while in the West the problem is less acute. The Energy Union that was proposed by the EU on February 25, 2015, just a few months after Tusk took over the presidency, was heavily influenced by Western European countries' priorities. It had its focus on realizing existing EU energy and environmental policy in a continued regulative manner, rather than on addressing energy security in an interventionist and realistic manner as suggested by Tusk.

This paper discusses and contrasts the two proposals for an EU Energy Union and how they interact and conflict in the making of EU energy security policy when shaping an Energy Union. What are the intentional and functional linkages between market liberalization, as both the East and the West want, and security-of-gas supply? Are interventionist supplements to the regulatory efforts aimed at realizing a common market for energy needed so as to mitigate the security problems in the CEEC and to deal with

[1] In 2014, Lithuania opened its Klaipeda terminal to import Liquefied Natural Gas (LNG) from Norway and other countries. By diversifying supplies the country claimed to have negotiated 20% lower prices for Russian gas with Gazprom (Adomatis & Sytas 2014).

the dependence on Russian gas? To contextualize the present situation, the paper first examines the historical European East-West gas trade since the Cold War. Second, it revisits energy security concepts to understand when dependency on other countries for a specific good is a problem, and discusses measures for reducing problems related to such dependency. Third, the two proposals for an Energy Union are presented and contrasted. Fourth, the constraints to EU gas market liberalization and its importance to energy security is analyzed. Fifth, the question whether more interventionist supplements to existing EU regulations are needed to realize the EU Single Market (SM) and to manage the energy security problems in the CEEC is addressed. Sixth, and finally, the paper discusses the possible outcomes of the intra-EU East-West debate over energy security and the creation of an Energy Union. The paper argues that better internal interconnectedness for gas in the CEEC would be the most realistic measure to mitigate, albeit not solve, their energy security problems.

Pipeline Politics and East-West Gas Trade

The current East-West gas trade situation is, to a large extent, based on investments made during the Cold War when the former Soviet Union started its main era as a petroleum producer. Petroleum management was based on extensive investments targeted to fulfill production plans which were the guiding line for the plan, control, and command economy in all sectors. Production decisions were hierarchically organized and commanded from Moscow. The central planners represented by Gosplan and the Politburo decided output targets. Producing fields were connected with the major industrial centers of the Soviet republics through the Unified Gas Supply System (UGSS). The UGSS was owned by the Soviet Ministry of Gas, giving it vertical control over all aspects of the Soviet gas industry, from production and transportation to storage. To the neglect of economic efficiency, high production targets requiring extensive resource usage were set (Austvik & Tsygankova 2004:310). The drop in world oil prices in the mid-1980s and bad resource management reduced profitability and affected the Soviet economy negatively as a whole. The economic crises in the late 1980s revealed the insolvency of the plan-and-command economy and contributed to the breakup of the entire union.

The first gas conflict between the Russia and its customers took place in the 1980s (Jentleson 1986, Austvik 1987, Closson 2011). The Soviet Union was constructing a pipeline to transport gas from the Urengoy field on the Yamal peninsula in Western Siberia to its republics, the satellite states in the CEEC as well as to Western Europe. In November 1981, Assistant Secretary of Defense in the Reagan Administration Richard Perle argued against the building of the pipeline as a clear threat to Western security. The pipeline was, however, built despite the protests. The rise of Russian gas production

thereafter facilitated a large expansion in the quantity of gas supplied to European markets both in the West and in the East.

After the breakup of the Soviet Union, Russia lost control over its republics and satellite states. All the CEEC and Baltic states are now members of both the EU and NATO. On the global stage Russia lost its superpower position; the world went from being bipolar to having U.S. as the hegemon. Russia started a comprehensive economic reorganization of all domestic sectors aiming to move towards a market economy. Restructuring of the oil and gas sectors was a part of these processes. In the gas industry, initially, the state company Gazprom was established on the basis of the former Ministry of Gas. The company took the control and management of all enterprises in the industry. In 1993, Gazprom was converted into a joint-stock company with the government being the main shareholder (at present 50.23%). Gazprom currently controls most Russian gas-producing and processing units; it also owns all high-pressure transmission pipelines and has the sole rights to export gas to Europe. In the domestic Russian gas market, Gazprom with its regional production and transportation units has, practically speaking, a monopoly with strong government involvement in its strategic, political, and economic decisions.[2] Thus the structure of the Russian gas industry and the logic of its organization haven't changed much since Soviet times. Gazprom inherited ownership over the UGSS and the various storage facilities and also a predominant position as monopoly supplier to the Russian market and to Europe. Also gas from other Central Asian producers running through Russia is controlled by Gazprom. Central Asian countries selling gas to Europe must make separate agreements with Gazprom for transportation, for example Turkmen gas to Ukraine (Gazprom 2015).

After 1991, the energy administrations that had been operative in the former Soviet republics and satellite countries turned into national gas companies. Gazprom continued to subsidize gas both domestically and to allies (such as in Belarus and on and off with Ukraine). Countries considered less friendly, for example those that became EU and NATO members, had to enter renegotiations where hard currency prices replaced the symbolic prices of the past (Cronshaw et al. 2008: 22). Newham (2011: 134) notes: "Some states such as Armenia, Belarus and the Ukraine under President Kuchma have been favored with heavily subsidized energy. Others, such as Georgia, Moldova, the Baltic States and the Ukraine under President Yushchenko have been targeted by supply disruptions and punitive price increases". The UGSS now passes through several independent countries but is still either owned,

[2] There has been developed a competitive fringe in Russia, albeit still a tiny one, in spite of the great number of companies. IEA (2014) writes: "In total, there were about 260 gas-producing companies operating in Russia on 1 January 2013, including 8 vertically integrated oil companies, 113 oil companies, 14 companies affiliated with Gazprom, 2 affiliated with Novatek, 128 independent companies, and 3 companies operating within the framework of Production Sharing Agreements."

controlled, or strongly influenced by Gazprom. Gas to Western Europe that was previously sold at the East-West border now has to transit through a number of independent former Soviet republics and satellite states (Ericson 2009: 33). When these countries became EU members, the UGSS became subjected to the EU energy *acquis*[3]. At the same time the vertical connections to Russia remained through Gazprom ownership of the infrastructure and its long-term supply contracts.

After independence from Russia, a series of disputes over prices, supplies, transmission tariffs, debts, and political relations arose. The most prevalent were those between Ukrainian oil and gas companies Naftogaz and Gazprom. These disputes have grown beyond simple business disputes into transnational political issues involving several countries, caused by its importance to Ukraine's and Russia's energy, economic, and political interests, and Ukraine's role as dominant transit country to the West. Several conflicts took place in the 1990s but the more serious ones occurred in 2005 (Stern 2006) and 2009 (Pirani, Stern & Yafimava 2009: 57). Russia claimed Ukraine was not paying for the gas, and that it diverted to itself gas intended to be exported to the EU. In January 2009, as many as 18 EU countries lost their Russian supplies because of the transit problems in Ukraine. Several economic activities came to a halt, and many people froze to death. Another climax occurred in 2014 after the Russian annexation of Crimea when supplies to Ukraine were stopped (but supplies and transit to the EU maintained). The controversies over this conflict have not yet ended and the outcome is unclear.

As in Soviet times, export of oil and gas has become an important factor in determining Russian policies. Russia has the world's largest natural gas reserves and currently produces ca. 11 million barrels per day (mbd) out of which 7 mbd are exported (EIA 2015). Reserves of Russian natural gas are even more abundant and estimated to be available for the next 100 years at current productions levels. In 2014 Russia produced 550 Billion Cubic Meters (BCM) of natural gas and is projected to reach at least 680 BCM by 2030 (Soderbergh 2010: 17). The country is one of the three largest oil-and-gas producers in the world along with Saudi Arabia and the U.S. It is the second biggest oil exporter and the biggest gas exporter.

The Russian economy is largely dependent on petroleum revenues. According to state-controlled news agency Russia Today, more than 50 percent of the Russian state budget is funded by gas and oil revenues in 2013. The main revenues come from oil reaching $191 billion while gas revenues reached $28 billion (RT.COM 17.4.2014). Under President Putin, Russia has recovered record high-energy revenues and political influence. Putin also managed to take back control over much of the oil industry lost under President Yeltsin in the 1990s (The Guardian, 12.12.2006). The state-controlled Rosneft is now the biggest

[3] The *acquis communautaire*, often referred to as *EU acquis* or just *acquis*, is the accumulated legislation and juridical decisions that constitute the body of EU law.

oil company while Gazprom is the dominant gas producer (EIA 2015). Russian companies have also invested heavily abroad in pipeline infrastructure and storage carrying Russian oil and gas products (Soderbergh 2010: 16). Petroleum revenues, state-controlled industrial structures and, in the gas sector, downstream pipeline control together with high market shares and asymmetric interdependence with purchasing countries, have positioned the Russian state with instruments to use towards either economic or political purposes. With its vast geographical territories, located in the "middle of the world," and enormous natural resource reserves, Russia have considered inevitably it will profit from combining economic as well as geopolitical goals, as in Soviet times.[4]

Energy Security Revisited

In order to guarantee supply for import-dependent countries and ensure stable demand for countries investing heavily in the extraction and export of energy, concern for energy security has been a political preoccupation ever since coal, oil, and gas became a driving force in industrialization and a precondition for modern society. For import-dependent countries in the West, this became particularly apparent during the oil crisis in 1974 when Arab members of the OPEC used oil for political leverage against countries that had supported Israel in the 1973 Arab-Israeli War. Another example is the claim from Russian-gas dependent countries that Gazprom uses its monopoly position over supply and pipeline routes as part of a strategy to interfere in their domestic and foreign policies. Irrespective of the political motivations and results of the 1974 oil crisis and the Ukrainian gas crises, the actions of the exporting countries were instrumental in increasing the price of energy and, thus, revenues from energy exports to get political concessions from importing countries.

Dependency on exports and imports goods is, however, *the normal state of affairs* in a modern world and a consequence of increased economic integration and mutual dependence. The economic system of the EU is strongly based on specialization and international trade within and outside the Community. Also Russia formally joined the free trade system in 2012 as a member of the World Trade Organization (WTO). Most countries are dependent on imports across a whole range of commodities, and on exports of fewer commodities (because countries specialize) to pay for the imports[5] Political concerns arise when dependencies cause short- or long-term problems with significant changes in prices, supply, or market

[4] The drop in oil prices since 2014 have significantly hurt the Russian economy and the Russian state, although the country appears to be in a much stronger economic situation now than the Soviet Union was in the late 1980s.

[5] *Import dependency* describes a situation where a country does not possess the capacity to produce 100 per cent of its own needs (Hogan and Mossavar-Rahmani 1987:8). A producing country has similar concerns about offset and prices for its products when domestic customers are unable to consume 100 per cent of domestic production.

access. A country can lie somewhere on the continuum between *neutral*[6]*, sensitive,*[7] *or vulnerable*[8] in its dependency on a commodity when its price or availability/market access changes. A country's vulnerability dependence can be significantly different from its sensitivity dependence and potentially more costly. As dependency on imports and exports is a normal state of economic affairs, government policy should aim to eliminate or reduce (potential) sensitivity- and vulnerability-dependence, while neutral dependency from this perspective is optimal. Thus the costs of dependency can be measured in monetary terms as well as by social and political changes in societies and governments. To assess whether a high dependency on trade with another country constitutes a security risk, two points should be taken into consideration: whether relations are (or can become) antagonistic,[9] and the (domestic) ability to adapt to change.

Hence, energy security challenges are both of an external and domestic political nature. In a situation when security-of-supply- and -demand problems cannot be resolved through foreign policy or external market reorganization, effects of sharp price changes and/or availability, or market access must be addressed by domestic measures. The ability to domestically adjust to such changes is important in determining the degree of sensitivity/vulnerability in the short and long-term respectively, for both importing and exporting countries. If a country for example, changes from being inelastic (inflexible) in its

[6] *Neutral dependence* can be defined as a situation in which a country either imports or exports a commodity and always has an alternative if one of the suppliers or customers disappears. This is a situation equivalent to the one that exists in contestable markets; there are numerous suppliers and customers and none of them has any influence on market outcomes. In other words, if a supplier or customer, respectively, withdraws from a relationship there will always be someone in the market to fill the empty place. Supply and demand problems arise, however, when markets are imperfect, when sellers and buyers are to some degree locked together, often in an asymmetric way. A change in price or availability will lead to changes in costs (or revenues for exporters), and/or access to the commodity (or markets). The response must then be to adjust to the new situation rather than just change to another seller (or buyer).

[7] *Sensitivity dependence* is measured by the degree of responsiveness within an existing policy framework. It may reflect the difficulty of changing policy within a short time and/or bindings to domestic or international rules, when price or availability/market access changes dramatically. Sensitivity dependence occurs in "the short run or when normative constraints are high and international rules are binding" (Keohane & Nye 1977:12-18). Sensitivity dependence need not induce a welfare loss in the long run when circumstances change.

[8] *Vulnerability dependence* is more serious than sensitivity dependence and measures the ability to adjust to changes after policies have been changed (Keohane & Nye 1977:12-18). In economic terms, vulnerability dependence can be represented as the potential for significant losses of output or welfare. Vulnerability dependence is primarily concerned with long-term supply and demand issues, while sensitivity dependency to a greater extent concerns the risk of disruptions to existing supplies. A vulnerability dependence occurs when "normative constraints are low, and international rules are not considered binding" (ibid).

[9] For example, as an importing country, Ukraine appears to be vulnerable to Russian pressure as they either had to pay a high price for the gas or give political concessions to get a low price. The price of gas was reduced for Ukraine as part of the Kharkov agreement in 2010 to make relations between the two countries more friendly, including the agreement that Russia could use the Sevastopol base on the Crimea for its navy until 2035 (Kremlin.ru 2010). For Russia, as an exporting country, building the NordStream pipeline in the Baltic Sea, from Vyborg near St. Petersburg to Greifswald in Germany, is a way to circumvent the transit country Ukraine which has been considered a security-of-demand problem from their side in relation to EU purchasers (Austvik 2009).

demand for imports in both the short and long-term to remain inelastic in the short but elastic in the long-term, the country's dependence on imports may change from vulnerable to sensitive, and the problem is hence mitigated. Domestic and external market and political situations together create the character of dependency on others and to what extent it should be considered a political problem or not. For the EU, if it is not possible to make Russia behave according to Western standards, and the transit routes remain too unpredictable, mitigation of the energy security problems must be addressed by intra-EU measures, such as to:[10]

1. build new infrastructure to enhance flexibility and to import gas from other sources and through different channels;
2. enhance energy efficiency to reduce the importance of natural gas in the economy;
3. improve the ability to switch to alternative fuels, or;
4. build Strategic Gas Reserves (SGRs) that can be drawn upon in an emergency situation similar to the Strategic Petroleum Reserves (SPRs) in the oil market to reduce sensitivity (Austvik 2004:193).

Important to notice is that sensitivity or vulnerability dependence on imports and exports, respectively, may occur even if the physical markets themselves are not considered commercial or politically "risky." An exogenous shock in international markets caused, for example, by a war limiting supplies and disrupting pipelines may dramatically change prices also in "secure" markets. This was much the situation following the two oil price shocks in the 1970s. In a price shock situation anyone may sell and buy the commodity (unless it comes to an armed conflict with the country itself involved). The problem is that if prices increase dramatically, parts of demand will switch to other energy sources and push these prices up, as well. Thus, security-of-supply for an energy consuming country is influenced by both the pure physical access to oil or gas, increased economic costs due to a rise in energy prices, as well as the political pressure that can be brought on them by parties controlling supply elsewhere. Security-of-demand for an exporting country comprises similarly the risk of a dramatic price drop, economic loss, and

[10] Similarly, Russia as an exporting country, considering transit countries (especially Ukraine) and EU policy-making a security-of-demand problem, must address the issue by the means it has control over if it is not able to change the situation through foreign affairs. Hence, for Russia improved security-of-demand can be achieved by measures such as:

1. build pipelines and LNG terminals to circumvent the transit problems it has with Ukraine and others (such as the NordStream and the alternatives in the Black Sea);
2. turn to other markets (such as China);
3. diversify the economy to become less dependent on natural resource exports, or;
4. refrain from using revenues as they are earned, instead placing them in a Sovereign Wealth Fund (SWF), as Russia and a number of other countries with large foreign exchange surpluses have done in the past. A large SWF may serve both short- and long-term purposes. A SWF can eliminate short-term domestic economic problems and dependence on prices and markets. The dependency issue may gradually shift focus towards the status and development of the fund itself.

adjustments in the economy caused by the loss of revenues and the risk of being politically pressured by parties controlling markets. Making a market more competitive is a measure to reduce sensitive and/or vulnerable dependency to changes in physical volumes for both, but the price risk may persist and even increase.

The Proposals for an Energy Union

In 2011, former President of the European Parliament Jerzy Buzek and former Commission President Jacques Delors called for a "politicization of EU energy policy". They argued it involved excessive focus on the regulatory issues and wanted to create an European Energy Community with a stronger emphasis on the challenges of supply security in the CEEC (Buzek 2011). However, neither the Commission nor Member State governments showed much interest in the idea. Part of the reason was that a few years earlier, the EU had made decisions concerning energy and climate targets up to 2020 and introduced a rather comprehensive Third Energy Package[11] and climate policy to address what was considered the most contentious energy policy issues at the time. Slow progress and a partly renationalization rather than a common-making of EU energy and climate policy took place in the years afterwards.

Poland's Prime Minister Donald Tusk eventually addressed the stalemate in his deliberately provocative article "A United Europe can end Russia's energy Stranglehold" in the *Financial Times* of April 21, 2014. Tusk argued for a speeding-up of the EU processes and argued that climate and environmental policy were being given too much attention in EU energy policy. For the CEEC, questions of supply security, solidarity between Member States, and concerns over Russian gas imports are more important. He claimed that the imperfect European gas market makes many member states vulnerable to economic pressures and potential disruptions of gas supplies from Russia. Because this is the case within the EU as well as in Russia, he stressed that policy should aim at making both the supply (i.e. Russian) and demand sides more flexible. Until this becomes a reality, however, the EU should have policies to deal with the security-of-gas supply problems and Russia's "stranglehold" on Europe. Tusk suggested the creation of an Energy Union with a focus on energy security, including more interventionist measures

[11] With its purpose to further open up EU gas and electricity markets the Third Energy Package (2009) consisted of two directives and three regulations, besides a focus on the realization of the two first energy packages. The First Energy Package (1998) allowed the opening of the electricity and gas markets, the gradual introduction of competition, and imposed broad unbundling requirements to integrated companies. The Second Energy Package (2003) focused on the concepts of unbundling and third party access, defined the need for independent regulatory authorities, and set deadlines for the liberalization of electricity and gas retail markets in 2004 and 2007. The core elements of the Third Energy Package were ownership unbundling to separate companies' generation and sale operations from their transmission networks, the establishment of a national regulatory authority (NRA) for each Member State, and the establishment of an Agency for the Cooperation of Energy Regulators (ACER) to provide a forum for NRAs to work together. The Third Energy Package has yet to deliver fully. See EU (2015c) for an overview of EU energy market legislation.

beyond regulation to mitigate the security problems faced by the CEEC. The proposal was founded on six "pillars:

1. *Jointly negotiating energy contracts with Russia.* Tusk argued that the EU should "confront Russia's monopolistic position with a single European body charged with buying its gas" and parallel to the European Atomic Energy Community's (EURATOM) role in ensuring EU Member States uranium for nuclear power production. "It would be created in stages. Initially, bilateral agreements would be stripped of any secret and market-distorting clauses; then, a template contract would be created for all new gas contracts; finally, the European Commission would be required to take a role in all new negotiations."

2. *Solidarity Mechanisms*. The Energy Union should guarantee solidarity among member states in case energy supplies are cut off again. Tusk noted: "Europe must be safe in the knowledge that its gas supply is assured, its storage facilities are sufficient and its gas networks are uninterrupted."[12]

3. *Building energy infrastructure.* In countries where the security of supply is most problematic (i.e., dependency on Russia is highest), Tusk argued: "storage capacity and gas links should be built with the help of the EU. Such projects should enjoy the highest permitted level of co-financing from Brussels – 75 per cent" to increase flexibility in the market.

4. *Full use of the fossil fuels available, including coal and shale gas.* Coal shall be considered synonymous with energy security in CEEC. Tusk remarked that "we need to fight for a cleaner planet but we must have safe access to energy resources and jobs to finance it." Energy production within the EU should be increased, including fossil fuels such as coal, and, if possible, shale gas.

5. *Diversification of external suppliers.* More suppliers should come to the European market. In particular, LNG trade should be expanded with the possibility of buying gas from more remote countries like Qatar, the US, Australia.

6. *Reinforcing the energy community.* The EU's internal market for energy should be strengthened through stronger institutions and decisions. The energy community should be enforced and

[12] The International Energy Agency's (IEA) crisis management system for a disruption in the oil market parallel this element in the proposal (Jakubowski, Miland & Woźniak 2011: 17). Such a system does not yet exist for the European gas market.

extended eastwards beyond the EU to boost energy security for the whole of Europe, not only for the EU.

Leading politicians in the CEEC hoped that Tusk would follow up on the idea of an Energy Union and make it into EU policy when he took over as president of the European Council (Crisp 2015). His challenge was to transform it from being an Eastern energy security project to becoming a unifying European project with the support of countries in Western Europe. Western European countries' gas interests diverge, to an extent, from the interests of the CEEC, while, at the same time, they constitute the bulk of EU gas demand. Around 80% of demand originates from major Western countries (predominantly Germany, UK, Italy, France, Netherlands, Spain, and Belgium), and, thus, only a smaller percentage comes from the CEEC. In Western Europe, markets are more developed; they face far less acute energy security problems and dependency on Gazprom; and their relations with Russia are relatively more distant than in the CEEC. In 2014, EU President Herman van Rompuy supported nevertheless Tusk's proposal, stating that the energy challenges of today are of the same kind as the problems faced in the early 1950s that spawned the European Coal and Steel Community (ECSC). However, the Energy Union that was proposed by the EU on February 25, 2015, just a few months after Tusk took over the presidency, had its focus on "secure, affordable, and climate-friendly energy for citizens and businesses" (EU 2015a) rather than a primacy on security-of-gas supply problems in the CEEC. The proposal was limited to a work package of legislative and non-legislative actions and covered a wide range of policy areas such as competitiveness, climate, transportation, industry, research, the digital economy, and agriculture. It was based on five "dimensions" (EU 2015a):

1. *Secure energy supplies.* Dependence on energy supplies from outside the EU should be reduced by the means of more efficient use of domestic energy sources while diversifying to other sources and supplies. The proposal stated that a solidarity clause should assure that a reduction in "dependence on single suppliers and fully relying on their neighbors, especially when confronted with energy supply disruptions."

2. *Internal energy market improved.* The proposal argued that "energy should flow freely across the EU - without any technical or regulatory barriers".. "as if it were a fifth freedom." Current rules should be strictly enforced "in areas such as energy unbundling and the independence of regulators – taking legal action if needed".

3. *Energy efficiency increased.* Increased energy efficiency should be considered an energy source in its own right. Reduction in energy consumption would reduce pollution, preserve domestic energy sources, and reduce the need for energy imports.

4. *Emissions reductions.* The target of emitting at least 40% less greenhouse gases by 2030 should be a first step. The proposal postulated that the next step "will be renewing the European emissions trading scheme and investing more in the development of renewable energy sources."

5. *Research and innovation.* The proposal argued that the EU should have the technological lead in the next generation of renewable technology to reduce energy consumption and create export and industrial opportunities and boost growth and jobs.

The EU proposal largely supported existing EU policy for energy and the environment. For energy, its main focus was to realize a well-functioning SM, where, in practice, much political competence had remained at national levels with requirements for voluntary cooperation between Member States in cross-border projects. Tusk's desires to alter policy focus towards energy security and to introduce additional interventionist measures to deal with the single market and energy security problems of the CEEC were largely omitted. Tusk, however, argued that as long as the Russian gas industry remains concentrated and politicized, and outside EU jurisdiction, regulatory efforts to support market liberalization alone may not solve the security-of-gas supply problems faced by the CEEC. Two questions should be taken into consideration for the common energy market to be realized and gas import security to be managed; what are the constraints to full market liberalization, and are more interventionist policies needed?

Constraints to EU Gas Market Liberalization

Economies of scale and legislation have historically made gas companies, in both Western Europe, in the centrally planned economies of the CEEC as well as in gas exporting countries, monopolies. In the 1990s, when the SM was introduced with only Western European countries as participants, and the first gas and electricity directives were announced, prices and contractual terms were generally set through negotiations influenced by market positions and political relations. In the CEEC, industrial energy structures were even more rigid and built in the command-and-control economy during communist times. On the supply side, in both Russia, Norway and Algeria, national champions produced, transported and sold gas. After 1991, the EU *acquis* expanded to more, but not to all, countries participating in the market. There are more reasons why a political liberalization of such an imperfect and complex international market, led by the EU, is not a straightforward process.

1. *Heterogeneous EU member-state energy situations*. Market maturity in the East and in the West of the EU, but also within the West, differ. As van der Linde et.al (2006:47) points out; the effects of "a straightforward liberalization process can distort necessary evolutionary processes as maturation takes place." Where the market is still underdeveloped (in an infant stage) huge investments are necessary and it is a commercial and political desire to secure long-term bindings in contrast to what a free market should look like. Where markets have matured and are more flexible and integrated, the Transmission System Operators (TSOs) may act more as transporters than as merchants, as expected in a liberalized market. Then the political resistance against common rules at the supranational (EU) level will, per se, be less predominant and the potential to make a common policy will improve.[13] The problem for land-locked CEEC is that they do not have alternative supplies, being Russian gas through other countries, as LNG or gas from other suppliers. These countries need pipelines able to transit gas in sufficient amounts through other countries or other means to make demand more elastic (flexible) such as alternative energy input in power plants etc. The heterogeneous preferences and perceptions on common energy objectives concerning competitiveness, supply security, and environmental sustainability make a one-policy-for-all difficult (Pointvogl 2009).

2. *Heterogeneous EU member-state political preferences*. There is also heterogeneous preferences about what the EU is and normatively should be. Different perspectives in regional integration theories largely identify them.[14] The CEEC tend to support a supranational and shared EU responsibility to strengthen positions in relation to Russia when energy security is concerned, as in other security matters, while many Western European countries consider themselves to be better off maintaining policy at the national level. In the West, the UK has spoken out against coal production and simultaneously for the right to develop nuclear power, shale gas, and renewable

[13] The partial immaturity across borders of the European gas market and jurisdiction differs from that of the U.S. and the U.K. ante liberalization. The liberalization (deregulation) of the U.S. gas market was implemented by the federal U.S. government and the Federal Energy Regulatory Commission (FERC) from 1978. In the U.K., the system has been regulated by the national Office of Gas and Electricity Markets (OFGEM) since 2004.

[14] In these theories, neo-functionalists generally support the idea and vision of maximizing the benefits for the EU as an entity and expect the integration of individual sectors to lead to spill-over effects to other sectors which further the process of integration. The "Community method" of policy-making through bargaining and consensus building has been predicated upon the behavior of an entrepreneurial Commission, and the expectation that participants agree to reach common goals. A constructivist view supports such an approach by anticipating a convergence of identities and preferences as cooperation evolves. However, every country, company, or citizen may not necessarily be concerned about what is best for the EU as a whole, and may instead choose what is best for themselves. An inter-governmentalist perspective treats states and national governments as the primary actors in the integration process. It considers the Community method to be a refinement of intergovernmental diplomacy, rather than offering excessive power to supranational EU institutions. An institutionalist perspective supports this view, mostly due to the resilience of incumbent domestic institutions (and companies). See, for example, Cini and Perez-Solórzano Borragan 2010:69.

energy, which is in line with the UK's own energy policy. Furthermore, borders in the EU are not Europeanized. As Jean-Michel Glachant argued in the Energy Post 24.2.15: "When Spain wants to interconnect with Morocco and negotiates tariffs, investments, rules of access etc., they are doing EU external energy policy but they do it on a national basis. It's the case everywhere in EU." Without more EU power (federalism) in the sector and following institutional change and strengthening in the EUs it is difficult to fully realize a common EU energy policy. Glachant notes that "current institutions and policies are unsuited to deliver an energy system transformation". Hence, if challenges now are as big as Europe had in the 1950s when creating the Coal and Steel Union, as van Rompuy argued, it can only with greatest difficulties be handled with the Commission's existing organization, power and market tools. Due to the mainly confederative structure of the EU and diverging national energy situations, political positions and interests, important policy areas may *de facto* remain at national levels, making it more difficult to reach goals considered important for the EU as a whole.

3. *Natural gas is a non-renewable resource.* Oil and natural gas differ as non-renewable resources from the renewables in that their supply is limited to a relatively few places in the world. The EU sees the gas conflicts with Russia mostly as result of Russian market and political power, i.e. a market failure, while the non-renewable nature of the resource is hardly mentioned. However, in a hypothetical free market extraction and purchase scenario for Russian gas, volatile and lower producer prices may hamper producer investments in large fields and infrastructural projects and in and by itself create a security of supply problem for the EU. Hence it is an industrial desire throughout the gas chain to maintain long term relationships and prices that secure investments in production and infrastructure for large portions of the volumes (albeit not all), which a completely liberalized and more volatile market may threaten.

4. *Environmental concerns.* Although natural gas is the cleanest of the three fossil fuels and considered preferential to coal and oil, increased gas usage represents an increasingly larger share of world CO_2 emissions. In addition, methane, the major component of natural gas, has an ability to trap heat almost 21 times more effectively than CO_2 (naturalgas.org). An increase in gas consumption in residential, industrial, or power sectors, along with cheap prices conflicts with the environmental goal of reducing global warming unless emissions are restrained.[15]

[15] On the other hand, if the economy is growing, natural gas would be preferred to coal. Natural gas is together with nuclear energy the cleanest non-renewable sources. After the Fukushima accident in 2011, several EU countries reviewed their nuclear policies with a stronger focus on natural gas. In the US, President Obama's proposals and the U.S. Greenhouse Gas (GHG) emissions reduction plan was predominantly based on shifting from coal to natural gas

5. *Regulatory complexity.* The economics of natural monopoly regulation necessary to make any liberalized natural gas market based on pipeline transportation work competitively indicate that social first-best solutions may not be attainable (Joskow 2005: 25). High investment costs, low flexibility, and considerable economics of scale are prevalent in the industry, especially in the transmission and distribution segments. Regulatory policy choices must often be found among social second- or third-best alternatives. The questions raised in regulatory economics illustrate that it is reasonably easy to argue both for and against more solutions when determining tariffs, transport capacity, property rights, and evolution of the market. Regulators can easily become "captured" by the regulated and other affected parties (principal-agent problems). Stronger nations and more powerful companies may influence the scale and scope of common EU regulations more than weaker and smaller parties. The outcome may not optimize a common EU economy, but rather single-country and -company situations. The competence of the Agency for the Cooperation of Energy Regulators (ACER) will be important for the outcomes of these processes, also after the agency is well established. Even with a mature market and suitable related policy packages, regulatory complexity contributes to gaming, and parties' interests and power as a lasting influence on energy-related policy making in the EU. Companies may start integrating through mergers and acquisitions, in addition to doing everything they can to halt and influence the scope of the regulations.[16]

   Large parts of the market are outside EU jurisdiction. The EU represents large parts of the downstream European market, while other parts of the transmission networks as well as production lie outside EU jurisdiction. As Russian exporter, Gazprom possesses some high-scoring cards. With the gradual opening of EU gas markets the company has used the opportunity to invest downstream, consolidated markets and used energy exports as a tool for political power, giving rise to the fear that it will gradually control much of the EU gas industry (Finon & Locatelli 2007).[17] The company has pipelines and domestic gas production that delivers

(The White House 2015). An optimal energy mix focused on energy security must balance the proportion of renewables and non-renewables in its portfolio. On the non-renewables side, natural gas is the best solution available among the fossil fuels, but is still a major source of emissions.

[16] A higher concentration around large champions may develop when a market is liberalized (as seen in the Eon-Ruhrgas and Gaz de France–Suez mergers), when allowed by competition authorities. Competition law and practices must therefore be seen as complementary to EU regulation and sectorial market specifics.

[17] This is limited now by the so-called Gazprom Clause of Directive 2009/73/EC (EU 2009) that does not allow for Foreign Direct Investments (FDI) if the actor threatens security-of-gas supply and does not comply with the energy *acquis*. However, Gazprom managed to establish itself in countries like Italy, Germany, Hungary, Bulgaria, the Czech

to the Nord Stream pipeline in the Baltic Sea, and, with some additional investments, also to new Black Sea projects[18] and is a key player in the market. There has been several attempts to compensate for the lack of EU jurisdiction over the entire gas chain. The EU-Russia Energy Dialogue established in 2000 had as objective to "provide reliability, security and predictability of energy relations of the free market in the long term" (Aalto 2007). The dialogue comprised a Permanent Partnership Council (PPC) with the Energy Commissioner, with the EU President and the Russian minister for energy and industry as participants. Aspects of confidence-building helped to overcome the 2009 Russia–Ukraine crisis, resulting *inter alia* with the agreement on an "Early Warning Mechanism". Attempts to include Russia in the Energy Charter Treaty (ECT) (Belyi 2009) and the EU-Russian consultations regarding the Third Energy Package were attempts to make Russia play by the rules set by the Western regulatory system. A more conflictual approach such as the Statement of Objections (SO) from the EU side against Gazprom to abandon resale obligations, market discrimination and unfair pricing (Bershidsky 2015) are expressions of more negative and conflictual agendas. On the Russian side, the formation of the Gas Exporting Countries' Forum (GECF) in 2007, consisting of Russia and countries in Central Asia and the Persian Gulf area, soon led to accusations of being a "gas-OPEC" against consuming countries (Finon 2007).

The developments in Ukraine has contributed to make the situation into a stalemate. The EU and Russian systems now confront each other in the form of how policy should work as well as for whom the gas trade should benefit the most. Leonard & Popescu (2007:19) note: "From Russia's perspective, the West has spent the last two decades rewriting the rules that govern their relationship" .. "a process which Russia for a long time had to accept due to its lack of economic and political power in the immediate aftermath of the Cold War." Russian President Vladimir Putin (2014) argues that it "is an attempt by the West (and the U.S.) to force their rules on other countries." Sascha Müeller-Kraenner (2008:41) states that the "wild privatization" that followed the collapse of the Soviet Union has been replaced by an assertive new policy of "state-monopolist capitalism." Leonard and Popescu (2007:19) postulates that Moscow "does not want to become part of the West anymore and it is challenging all the strategic, political and economic agreements that were signed in the 1990s".

Republic, Estonia, Hungary, Latvia, Lithuania, Poland, and Slovakia before the implementation of the directive (Mercouris 2015).

[18] After South Stream was cancelled Russia is considering a Turk Stream pipeline to Turkey.

Are additional measures needed for energy security?

Internationalization and global market integration, LNG trade, new fossil supplies (such as shale oil and gas), energy efficiency measures, and more renewables, are gradually changing the character of the interdependence between European gas importers and Russia. The security-of-gas supply and security-of-gas demand issues will gradually group together, based on whether prices are too high or too low, degrees of price volatility as in the oil market, and regulatory schemes. However, before this becomes a reality, Russian energy power can be considered a threat both in terms of sensitivity and vulnerability for the importing countries concerned. The smaller, the more energy dependent, and the geographically closer to Russia the country is, the greater the impact may be. Tusk's proposal for an Energy Union included, on this background, three major interventionist measures to help the completion of the SM in energy in general, and to address the energy security situation in relation to Russia in particular; a single buyer, EU co-funding of infrastructure and increased production of fossil fuels.

1. *Jointly negotiated gas contracts (a single buyer)*. This based its logic on meeting Russia's gas sales monopoly with a purchasing monopoly (a monopsony). However, this marks a break with EU's fundamental liberal idea of an internal market with competition, and free movement of goods and services as a premise. It is also complicated in terms of how providers other than Russia should be handled, such as Norway, Algeria, and LNG exporters. Furthermore, it is uncertain what impact a pooling of purchasing power would have on Russia's market power as long as gas demand is sustained and a country has no access to alternatives. In such case, the parties are still asymmetrically interdependent in favor of Russia, and a single buyer will not have much power. One cannot counteract with power if one has no power.

   The EU proposal for an Energy Union addressed the counteracting of Gazprom market power, but suggested rather a voluntary demand aggregation mechanism for joint gas purchasing when a member state is dependent on a single supplier. It should be fully compliant with WTO and EU competition rules and included a more direct role of the EU Commission in contractual processes, intended to lead to a greater degree of harmonization of terms and prices, and more transparency. The EU proposal is a more modest step to meet Gazprom's market power and appears as more realistic compared to the single buyer idea.[19]

[19] The EU has however long before Tusk's proposal on a joint purchase mechanisms in 2014 also seen it as beneficial that large companies in the energy sector maintain a strong position of purchasing power, even if excessive market power in certain regions results and can limit competition in the EU (Finon and Locatelli 2007:24-28).

2. *EU 75 % co-funding of infrastructural projects.* This measure should speed up the realization of a more integrated SM and remove bottlenecks that private financing do not find profitable. More and better infrastructure is decisive for mitigating the effects of Gazprom's monopoly position. If a purchasing country can switch to other gas, it might reject a deal with Gazprom. Improved interconnectedness would also help the energy security situation, create a better negotiating platform, improve market efficiency, and should, for these reasons, be a major goal for the EU as a whole. The question is if it is necessary and realistic to get a direct subsidy of 75 % from the EU to realize it. The EU rather suggests an Energy Infrastructure Forum (EIF) to discuss progress on pipelines and electricity interconnectors with Member States, regional cooperation groups and EU institutions. In promoting new gas pipelines and LNG terminals, the EU Commission is establishing a Connecting Europe Facility (CEF)[20] and a European Fund for Strategic Investment (EFSI)[21] to bridge the investment gap, mostly as private-public financial solutions. However, in these arrangements, the gas infrastructure must compete with infrastructural projects in other sectors. It is also based on the premise of a financially strong EU (the EU is not a financial union), a greater degree of supranationality, and more extensive use of the "Community Method."

   Some sort of public-private co-funding appears nevertheless as needed to realize unprofitable infrastructural cross-border projects that have a net social surplus. To access private sector capital, cross-border regulation and project-design needs to be stable and sufficiently standardised, and, if still not attractive, public money, whether national or EU, must make up the difference beyond what is suggested through the EIF and the European Fund for Strategic Investments (EFSI). Hence there is a need for changes in the functionality of the EU system to achieve this. With insufficient economic support from the EU or other financial solutions to build cross-border infrastructure, the SM for energy may be a reality much later in the CEEC than in Western Europe, with remaining security-of-supply problems.

3. *Increased usage of domestic produced energy, including fossil* fuels. This element in Tusk's proposal is to value improved energy security higher than the environmental problems more fossil fuel production might create and a direct consequence of Tusk's attempt to switch the focus of SM

[20] The CEF was launched in September 2014 and will use 50 billion euros of the EU budget to boost transport, energy, and digital cross border network, which, at the same time, will release additional public and private co-financing. The EU contribution will be made in the form of grants, making the co-financing rate between 20% and 85% of a given project (EU 2013).

[21] The EFSI was launched in January 2015 and should guarantee the mobilization of investments in credible pipeline projects (Gimdal, 2015: 6, EU 2015b).

policy towards a priority on energy security. However it is in direct conflict with environmental and climate goals of the Western EU countries. If the proposal had been confined to increased production of renewable energy sources it would have merged with the EU proposal on the issue. However, more renewables would require considerable national, EU, or other support and financing, such as for the Energiwende[22] in Germany which involved substantial amounts of German public finances. For many of the relatively poorer countries in the CEEC this is difficult until renewables become cheaper to produce. Production of more fossil fuels will not be supported by EU policy, but fossil energy will most likely continue to be produced across the EU, and even increased where economically feasible, independent of the lack of EU support.

Interestingly, neither of the proposals for an Energy Union suggests the establishment of governmentally owned SGR facilities parallel to SPRs in the oil market to reduce sensitivity dependence, although gas stocks in more general and commercial terms are mentioned in both.[23]

Conclusions

The main question raised in this article is how the Western and CEEC perspectives interact in the making of EU energy security policy as suggested in the two proposals for an Energy Union. The article demonstrates that the mitigation of energy security problems is linked partly to the realization of a common market for natural gas as a joint interest for both Western Europe and the CEEC. Due to a

[22] The German Energiwende is changing the German energy situation to become dominated by renewable energy, energy efficiency, and sustainable development. Its final goal is the abolition of coal and other non-renewable energy sources by 2050. Important aspects include 80-95% greenhouse gas reductions, 60% share of renewables, broadly defined as hydro, solar, and wind power, and 50% improvement in energy efficiency. Germany's share of renewables has already increased from around 5% in 1999 to 22.9% in 2012, surpassing the OECD average of 18% usage of renewables.

[23] Among other important elements addressing existing energy security policy in the EU proposal for an Energy Union were:

- A revision of the Gas Security of Supply Regulation (EU 2010) and increased transparency of commercial gas supply contracts.
- Joint preventive and emergency plans including contracting parties including stress tests.
- An LNG strategy including the need to build transport infrastructure to link LNG access points to landlocked countries.
- Revision of the Intergovernmental Agreements (IGAs) (EUR-Lex, 2015) on gas purchasing to ensure that they are compatible with EU law and to confirm that it is of importance for European energy security before these agreements are signed. The Commission shall be informed about, and be involved in, the negotiation of such contracts.
- Full implementation of the Third Energy Package especially with regard to unbundling and the independence of regulators.
- A push-back on the renationalization of energy policy.
- Strengthening of European Network of Transmission System Operators for Gas (ENTSOG) to ensure greater cooperation between national TSOs and a "significant reinforcement of powers and independence" of the ACER.

number of constraining factors, the SM for energy may however not become fully liberalized in the foreseeable future, if ever. It can only, albeit most importantly, become *more* liberal and flexible. At the same time, for gas imports from Gazprom, the Russian and EU political systems appear to remain unevenly matched. The EU largely wants to create a single energy market decoupled from the dependence on Russia and to repair the lack of jurisdiction over the whole market through the ECT, various consultations, the Statement of Objections (SO)/court case against Gazprom, etc.[24] The EU sees Russian gas policy mainly as a market failure. However, it is difficult to see that the EU acquis can be expanded to Russia due to diverging views on both policy objectives and methods. Conversely, Russia did not sign the ECT and is politically controlling FDIs in the energy sector in Russia.

This paper has argued that better interconnectedness within and to the CEEC appears as the most realistic single step that would mitigate, albeit not solve, the energy security problems in the CEEC. To find the right public-private combination for the financing of expanded infrastructure will be a most important step both for energy security, as an insurance premium against the effects of a crisis, and for the economic benefits of the completion of the SM in energy. The debate over this part and other parts of the creation of an Energy Union may follow the "normal" path of EU integration conflicts. The Commission may compel Member States to agree on it as a principle and then develop a pragmatic and non-politicized regulatory progress for its implementation. Member states will resist the convergence pressures and policy harmonization may become more about formality than reality as often is the case within the EU. A greater similarity in political forms and processes does not always lead to the same degree of similarity in actual political content and, hence, to real political convergence (Austvik 2015:119). With the CEEC inside the EU, the EU is however also changing. With a stronger voice from the CEEC, an increased focus on energy security may be accepted also in Western countries with following political, financial and institutional change, especially if a new crisis should occur. For the Energy Union, additional and more realist oriented policies to improve access to alternative suppliers and better interconnectedness could bring the internal energy market closer to reality and mitigate, albeit not solve, the effects of a new gas crisis for the CEEC. It could hence contribute in making the Energy Union a unifying project merging the positions and interests of Eastern and Western Europe despite their different security-of-gas-supply concerns with Russian gas.

[24] Truly, the soft power exercised by legal, quasi-legal, and institutional instruments as a force to promote Western interests is increasingly more important as alternatives and supplements to economic and military power in international affairs. Joseph Nye (2015) claims that soft power will be a main political instrument in addition to economic and military force in the interdependent world of the 21th century. Russia got a lot hard economic and military power in the 2000s, but has still only marginal soft power.

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