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**An analysis on the prospect of the common external gas policy of
EU to Russia**

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Summary

The aim of the thesis is to analyze the reason why there is a huge gap between rhetoric and reality about EU member states to develop a common external gas strategy and stance towards Russia.

Energy plays an important role in EU-Russia relations. There exists interdependency for both parties in energy area. EU is not rich in fossil fuels and has to import more than half of the energy to meet the industrial development and household needs. Russia is endowed with large reserves of oil, gas and other energy resources. As an energy giant, Russian economy has always been reliant on the energy export and EU is the most lucrative customer. In recent years, EU has been worried for the security of gas supply from Russia. The price dispute between Russia and Ukraine led to gas disruption to EU in 2006 and 2009, which had a serious influence for most central European countries.

EU has been trying to keep gas security by diversifying gas sources to decrease dependency on Russia, building new pipelines to mitigate the influence of transit countries and strengthening internal solidarity. While in current days and foreseeable future, the status of Russia as one of the main gas supplier cannot be changed. In order to improve the negotiation capability, EU Commission propose member states to strengthen coordination and speak in one voice in the external energy relations with a third country. The thesis will analyze the reason of the failure of external common gas policy to Russia from the viewpoint of Russia, EU and its members.

Energy accounts for a special status in Russia's foreign policy. It is the fourth world producer of electricity, second world exporter of crude oil, first world exporter of refined petroleum products, and first exporter of natural gas¹. Energy industry is one of the most important sectors of Russian economy. Share of Russian energy industry in overall GDP was roughly 30%, share in tax revenues to the country's budget – 51.7%, and share in export revenues – 65.9% in 2014.²

Russia plays a monopolistic role in EU gas market. How Russia considers its energy power is really significant because this perception will decide its foreign policies and the energy security of EU. Russian energy strategy is the official document containing a system of claims about the priority of long-term energy policy and the mechanisms for its implementation. As the first Energy Strategy to 2020 stated, "Russia has meaningful resources of energy and powerful fuel-energy complex, which is a basis for economy development, tool for conducting internal and external politics. Role of the country on the world's energy markets largely determines its geopolitical influence."³ According to Energy Strategy of Russia to 2035,

¹ Central Intelligence Agency, 2014; U.S. Energy Information Administration [EIA], 2014

² Natalia Victorovna Kuznetsova, Ekaterina Vasilievna Kuznetsova: Energy Strategy of the Russian Federation, Mediterranean Journal of Social Sciences, Vol 6 No 5 September 2015.

³ Ministry of Energy of Russian Federation. (2003, August 28). Energy Strategy of Russia till 2020. Approved by the Decree N1234-r of Government of the Russian Federation.

energy should be used to realize the global goal. It is understandable because Russia has a limited toolbox for foreign policy.

Furthermore, to maintain its monopoly on the EU energy market, Russia develops a “divide and rule” gas policy to EU. There are three groups of countries: countries from the former Soviet Union territory, central European countries and western European countries. Gas disruption never happens aiming at western European countries. On one hand, they are the most lucrative markets; On the other hand, they have close economic relationship with Russia. But energy used as a powerful tool to achieve Russian’s political goals in its former satellites. As for central European countries, Russia had been less willing to use energy weapon to the same extent as against its former satellites, but they are definitely being seen as affordable “collateral damage”.⁴ Russia’s “divide and rule” gas policy to EU member states succeeds in some degree to hinder EU’s efforts to “speak in one voice”.

Russia has also been trying to control infrastructure in EU territory and working to reach downstream markets to ensure its energy security. Most of the actions are considered as violations against EU Third Energy Package and caused disagreements in EU—Russia relations.

After the gas disruption that lasted for 11 days in 2009, EU speeds up its efforts to build infrastructure to diversify gas supply routes and reach more gas suppliers. The “Nord-Stream” firstly connects Russia and Western Europe directly, which diversify gas transmission routes and bypass problematic transition countries such as Ukraine and Belarus. The project evokes hot debates among EU member states. Besides Germany, countries such as the UK, France, Finland, Denmark and Sweden are in favor of the Nord Stream. But as traditional transit countries, Ukraine and Belarus are strongly against the Nord Stream project because it would decrease their important status transit country status and reduce budget income. Baltic nations and Poland are also strongly against the project because it makes them more vulnerable to Russia’s possible energy blackmail as with Russia would turn off gas to them without affecting gas supply to western big powers.

Besides, TAP is under construction and will open the South Gas Corridor for EU. The current gas resource for TAP is Azerbaijan. In the future, it is possible for EU to import gas from Middle East countries and Central Asia countries. Nord Stream and TAP are successful examples; there are also some failed pipeline initiatives. Nabucco pipeline is proposed by EU in order to open its Southern Gas Corridor to diversify gas sources and decrease its dependency on Russia. The main reason for its abortion is there is no enough gas supply for it. Comparing with Nord Stream and South Stream, Nabucco can not channel one of the major gas suppliers to EU markets. Middle East countries like Iraq are in political chaos and cannot be a reliable supplier. Central Asian countries like Turkmenistan and Kazakhstan are locked in their gas cooperation agreement with Russia and Turkmenistan also supply gas to China. That left Azerbaijan the only reliable and

⁴ Robert Larsson: Nord stream, Sweden and Baltic Sea Security, *Journal of Eurasian Studies* 2 (2011) 74–85

important gas provider. Out of commercial and political reasons, consortium Shah Deniz II---the controller of the largest natural gas field Shah Deniz, decided to construct TAP with Russia. Many EU member states' support the rivalry of Nabucco----South Stream also leads to the failure of it.

South stream is proposed by Russia as part of its coordinated gas policy (together with Nord Stream) and is also a response to the EU's initiatives of Nabucco. The main reason for the failure of this project is that it is not compliant with EU third energy package (TEP) according to EU. TEP aims to increase integration of European energy market with the cornerstone of "ownership unbundling" principle. It means a company cannot own and operate a gas transmission network simultaneously. As this principle would discourage companies from investing, the package also allows for exemptions from such requirements. TAP obtained a series of such exemptions in May 2013 followed by SOCAR is a shareholder in the TAP consortium supplying gas to EU as well as operator of Greece's gas grid. But the European commission did not show that it would reconsider to give exemption to South Stream.

European Union is also striving to establish a rules and market based internal energy market. At the same time EU also wants to shape external energy relations with Russia through Energy Charter Treaty (ECT) and the EU-Russia energy dialogue. Its external approach can be seen as extension of internal approach.

Energy Charter Treaty is a legally binding treaty under international law which provides rules on energy transit, trade and investment. Its central aim is "to strengthen the rule of law on energy issues, by creating a level playing field of rules to be observed by all participating governments" (Energy Charter 2012a). For EU member states, the purpose of ECT is to ensure countries secure and stable access to natural resource and protect a reliable energy transmission to the consumers. Therefore, EU is actively to push Russia to ratify this treaty in order to improve energy supply security.

However, Russia signed the treaty in 1994 but after many years of negotiation but terminated the provision of the treaty in 2009. The treaty's provision on pipeline grids and transit is the most unsatisfactory part for Russia. According to "the principle of freedom of transit and of non--discrimination" (Energy Charter 2012b), Russia is obliged to open its gas pipeline to other gas suppliers. That means Russian pipelines could be used for outside interests, including the "southern gas Corridor" which links gas suppliers form Caspian region and Middle East through Russian territory. The ratification would undermine Gazprom's monopoly position in European energy market by compelling Russia to open up its transmission infrastructure to other gas suppliers with lower gas price such as central Asia. ECT is not compatible with Russian interests as a gas monopoly of EU and thus it is plausible that Russia reject it.

The EU-Russia Energy Dialogue was launched on 30 October 2000 at the EU-Russia Summit in Paris. The primary goal of the dialogue is to resolve "all the questions of common interest relevant to the energy sector".⁵ The basic idea behind the dialogue is a simple balancing of interests: the Russians need more

⁵ EU-Russia Summit(ERS)(2000). Joint Statements of the President of the European Council

European investments while Europeans need secure and long-term access to Russian oil and gas. Both Russia and EU share a mutual interest in the dialogue, but each of them pursues on its own agenda. From 2000 until now, Energy Dialogue has born little fruit and it has mostly been a talk-shop. Hopes for “energy partnership” and a more wide ranging agreement to open up energy markets remain unfulfilled, let alone the spill effect of the energy cooperation to political entity between EU and Russia. There are three factors led to this situation, including ideational, institutional and leadership differences between Russia and EU. At the deepest level, the ideational factor includes informal rules: beliefs, values and culture. EU and Russia hold total different views about how to achieve energy security. After decades of integration, EU holds the belief that security can be best achieved by communication and cooperation as well as integration. The notion of sovereignty has been watered down. While Russia is striving for restore of its old status by gaining hard power and emphasizing its sovereignty.

Institutional factor refers to formal rules and institutions which provide legal basis for the dialogue.

Comparing with EU’s long-term and comprehensive vision about the dialogue, Russia’s aim was more short term and unclear as well as less comprehensive. It may be true that Russia wants to develop deeper and integrated relations with EU but it lacks appropriate routes to achieve it. EU wants Russia to ratify Energy Charter Treaty, which was signed in December 1994 and provided the legal framework for transit of, and trade and investment in, energy. While Russia refused to ratify the ECT and objected to the provisions regarding third-party access to its vast state-owned pipeline system. To make Russia ratify ECT was objectives of the dialogue, but it failed after many efforts.

Leadership factor means all actors that exert influence to the process of the dialogue. Russia is a more powerful and efficient political actor in contrast with EU. Despite a large bureaucracy consigned to the energy sector, the powers to make real decisions are rest with only a few people. However, Brussels are highly dependent on the consent of its member states to make big decisions. The energy mix and dependence of member states are highly diverse. Therefore, the commission’s powers are better suited for resolving technical issues than highly political questions.⁶ The mismatch between actors’ power is also a factor for the failure of dialogue. But it is deniable that EU-Russia energy dialogue offers a platform for intense discussions and made some progress.

Besides its external efforts such as building and improving infrastructure and establishing dialogues regimes to keep its gas supply security, EU is also working to the improve internal infrastructure and to issue energy related rules and laws in order to construct an internal energy market. There are three energy packages adopted by EU from 1996 to 2009 in order to establish an internal energy market. The architecture of internal energy market is clear in the Third Energy Package⁷ and in complementary legislation⁸. The main

⁶ Lars-Christian Talseth: A Dialogue of the Deaf: the EU-Russia Energy Dialogue 2000-2009, RUSSCASP working paper, April 2011: p.49

⁷ The Third Energy Package includes two directives and three regulations: Directives 2009/72/EC and 2009/73/EC,

issues concerning with completion of the internal market includes: the liberalization of energy market, the establishment of independent regulators and the creation of Trans-European networks.

Unbundling is the separation of energy supply or generation from the operation of transmission networks. If a company which produces gas or electricity owns the transmission networks at the same time, it may prevent other energy suppliers using its infrastructure. That hinders a fair competition and can lead to a higher price for consumers. There are three models of organization: full ‘ownership unbundling’, independent system operator (ISO) and independent transmission operator (ITO). Unbundling is the core in the Third Energy Package.

The third energy package laid out the outlines for internal energy market but the implementation of it needs independent regulation from countries as well as EU. Regulation plays an indispensable role to ensure a transparent and competitive internal market. National regulators must be independent both from energy companies and political power. Governments must provide enough resource with regulators to perform their duties. Regulators from different countries in EU must cooperate with each such information exchange to enhance competition, the opening-up of the market and an efficient and secure energy market system. In order to reach a better cooperation among energy regulators from different countries, the European Agency for the Cooperation of Energy Regulators (ACER) was also established⁹.

Decision 1364/2006/EC lays down outlines for trans-European energy networks that identify projects of common interest and priority projects among trans-European electricity and gas networks. Projects of common interest enjoy priority for the granting of financial aid from EU.

There are a lot of efforts have been done by EU to improve internal infrastructure. With the Regulation 994/2010 on Security of Gas Supply, EU has been working to improve infrastructure, including the implementing gas pipelines (interconnection and reverse flows) and increasing LNG facilities and underground storage capacity.

EU’s internal efforts including the integration of internal market and improvement of infrastructure have an effect to Russia’s activity.

Gazprom has been attempting to acquiring assets in downstream distribution and transmission companies, and even in gas-consuming industries. To avoid “indiscriminate acquisition” of EU midstream facilities by non-EU actors, Commission enacted a “reciprocity clause” applicable to third countries, which stipulates companies of non-EU members are authorized to operate in EU markets if abiding the same unbundling principles within the internal market. And the investment undertakings from companies of non-EU members would be blocked if deemed detrimental for energy security of EU. In Russian perspective, the third country

Regulations (EC) No 713/2009, 714/2009 and 715/2009.

⁸ In particular, Regulation No 994/2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, REMIT, and the proposed Regulation on guidelines for trans- European energy infrastructure.

⁹ Regulation (EC) No 713/2009

clause is “anti-Gazprom” clause because it obstructs Russia’s access in the EU market as it’s an integrated company.

Liberalization of gas market would lead to greater competition among suppliers and more spot market sales, which makes long-term contracts a friction between EU and Gazprom. EU authorities consider that take or pay contract is contrary to the Union’s competition policy and is obstacle for new participants’ access in EU market. It is unavoidable for Gazprom to re-examine of these long-term contracts or re-negotiate some clauses which are deemed incompatible with the flexibility needed for the operation of a single natural gas market.¹⁰

Russia has finished construction of Nord Stream 1 which bypasses Ukraine and connects EU and Russia directly. Nord Stream 2 is also on plan and will greatly improve the export capacity. Besides ensure its market shares in Europe, Russia also works hard to ensure gas demand by diversifying its markets. Russia realizes its over dependency on gas export to Russia and decides to seek alternative markets, such as China, Japan and South Korea. Certain reserves in Western Siberia being developed as part of the Altai project could be devoted to supply for China.

Besides EU’s internal and external efforts to safeguard energy supply security, to act in a “spirit of solidarity” or to speak in “one voice” has been reiterated in various official documents and in EU legislation since 2004. In this article, a common external energy policy refers to a common stance as well as a common recognized strategy of member states when dealing with gas relationship with Russia.

Energy is a sensitive and significant area for a nation therefore member states are reluctant to transfer this competence to the supranational level, which is evident that the energy chapter of Lisbon Treaty has additional clauses that provide member states with the ability to keep supply of energy as a state competence. Although solidarity and a common energy policy are reiterated in different official papers and speeches, it is clear that different member state still continue their own gas policy with Russia. A number of factors lead to this consequences.

Firstly, the energy mix in different member state varies greatly thus the status of gas in their energy consumption is different. Besides, the gas dependency on Russia in EU member states differs from one and another. The western and old member states are more diversified in gas supply both in sources and routes, while CEE countries are more dependent on Russia because their geographical location and lack of alternatives. Member states can be divided into three groups concerning their dependency levels on Russian gas. The first group is countries with the lowest dependence on gas imports from Russia, including those countries which import no Russian gas at all. This group includes Spain, Portugal, Denmark, Ireland, Netherlands and the UK and so on. Denmark and Netherland have rich gas resources and are net gas exporters to other EU countries. Therefore they are not enthusiastic about gas import security from Russia.

¹⁰ Chevalier, J.M. and Percebois, J., 2007. *Gaz et electricite: un defi pour l’Europe et pour la France*. La Documentation francaise, Paris

And for countries like Spain and Portugal are geographically remote for Russia and do not have connected pipelines, they import gas from Algeria, Libya through pipelines and import LNG gas from Qatar. The second group is made from countries with medium dependence on Russia, such as Germany, France and Italy. They do import large amount of gas from Russia which constitutes the majority of Russian gas exports to Europe. Gas is substantial in their energy consumption and their imports contribute large amount of cash for Russia. Germany, France and Italy established special relationships with Russia to ensure energy security. The last group encompasses member states with a high dependence on Russia, including Finland, Estonia, Lithuania, Latvia, Slovakia and Bulgaria which rely 100% on Russian gas. And countries like Poland, Bulgaria and Estonia consume a great amount of coal, which accounts for more than 30% of their energy mix. In order to fulfill the greenhouse emission task, these countries would decrease coal consumption. Compared with other low-emission energy, gas is a good alternative and the imports of gas may climb up in the future. It is clear that the role of gas from Russia varies so greatly among member states. Therefore it is reasonable and understandable that countries hold different positions in gas relationship with Russia. Secondly, the disparity of the bargaining power and standing in relation to Russia is huge. Countries like Germany, France and Italy import large amount of Russian gas and contribute greatly to Russian economic revenue, which enable them in strong positions to negotiate with Russia in gas supply contracts and gas price and so on. But, CEE countries such as Poland or Bulgaria do not import so big quantities thus they are not in a favorable positions to negotiate with Russia.

Finally, member states have total different attitudes about the reliability of Russia as a gas supplier. In order to systematically depict member states' attitude to Russia, an index of friendliness towards Russia has been built¹¹. The index orders Russian attitudes from 0 to 1, in which 0 means the lowest rate of friendliness and 1 means the highest. There are four-type categorizations, which have been labeled as "the Eastern divorced", "vigilant critics", "acquiescent partners" and "loyal wives" respectively. This group of "eastern divorced" is composed of Estonia, Lithuania, Poland, Latvia, Czech Republic, and Slovakia. The past historical experience contributes a lot to their cold attitude towards Russia. Baltic countries have reiterated the invasion history and asked apologies as well as financial compensation from Russia even nowadays. And the question of Russian minorities in the Baltic States, particularly in Estonia and Latvia, is a main source of conflict between these States and Russia. The group of the vigilant critics includes western countries (Sweden and United Kingdom) and four CEE countries. Bulgaria, Romania, Hungary and Slovenia defeated Nazi Germany with the help of USSR in world war two. The intensified control in politics and economy as well as in social life resulted in people's unsatisfactory and dislike against Soviet Union. In 90s, these countries overthrew communist party government controlled by Soviet Union and established democratic government. The shadow of being controlled history would affect their opinions about gas relationship on

¹¹ Stefano Braghiroli and Caterina Carta: The EU's attitude towards Russia: condemned to be divided? An analysis of the Member States and Members of the European Parliament's preferences,

Russia. But compared with Baltic regions counties, they hold a more positive attitude towards Russia and establish more close economic and energy relationship with Russia. Acquiescent partners include Germany, France and so on. Loyal wives include Greece and Italy. Because of historical and geopolitical experience, new member states like Poland and Estonia are suspicious about Russia's reliability. Yet, the old member states underscore the benefit to cooperate with Russia.

In conclusion, member states have their own national preference out of their own energy mix, gas dependence on Russia, bargaining power as well as attitudes to Russia.

External energy policies of member states are driven by their own country interest instead of the whole interest of EU. That means a common gas policy would be supported only if the policy fits for the interest of member states, especially the powerful member states such as France, Germany, Italy and UK because their choices are decisive. With the enlargement of EU in 2004, 2007 and 2013, the energy dependence of EU to Russia reinforced with more CEE countries' access. These countries such as Poland, Slovakia and Bulgaria hold negative attitudes against Russia because of historical and geopolitical experience. They would like to secure energy security through this supranational organization and have been calling on EU to take strong positions against Russia and to decrease dependency on Russia. Countries like Poland, Estonia and Latvia persist in uploading their policy preference to EU and actively lobbying other member states and EU institutions to form a common external gas policy to Russia. Besides energy, the issue of uploading their interests or bilateral problems with Russia to the EU level is a protracted one for the group of central and eastern member states. EU represents all interests of member and its policy tends to reflect the interests of individual states that have successfully uploaded to the EU level. That can partially explains why solidarity has been reiterated again and again in official papers. Apparently, western EU member states are inclined to continue or even improve cooperation with Russia because the relative low price of gas. There is therefore no consensus about a common gas strategy to Russia.

To improve EU's internal solidarity is definitely vital in gas crisis. Yet, the prospect to achieve a common position among EU member states to Russia in gas relation is hopeless. The solidarity mainly concentrates on seeking practical, technical agreements among member states to help each other tackle gas supply reduction and survive in gas crisis. In the author's perspective, to enhance internal mutual help and financial compensation during a gas crisis is more realistic and helpful.

Chapter1 introduction

1.1 The purpose of the thesis

The purpose of the thesis is to analyze the reason why there is a huge gap between rhetoric and reality about EU member states to develop a common external gas strategy and stance towards Russia. The principle of “solidarity” is omniscient in EU official papers and speeches, but the realities show that this principle is not always observed by member states. The factors which lead to this situation will be analyzed in this article and the common external gas strategy will not come into effect in the author’s opinion.

Energy relation between EU and Russia is the most important part in their economic relationship. There exists interdependency for both parties. EU is not rich in fossil fuels and has to import more than half of the energy to meet the industrial development and household needs. Russia is endowed with large reserves of oil, gas and other energy resources. As an energy giant, Russian economy has always been reliant on the energy export and EU is the largest customer. The sales of crude oil and gas accounted for 68% of the total export of Russia¹² in 2013 and provided more than half of the government’s total revenue. The energy cooperation between two parties has existed long before.

Among all the energy imported from Russia, gas is especially important and unique. Comparing with oil, which is exchanged in the international market and there is a common price for oil of various places, gas trade is heavily dependent on large-investment infrastructure such as pipelines and LNG facilities. Thus the gas trade is dependent on geographical proximity a lot. The gas trade between EU and Russia was started from the Soviet Union period and there are many pipelines built to transport gas from Russia to EU. The geographical factors and low price of Russian gas has made Russia a strategic gas supplier to EU.

In recent years, EU has been worried for the security of gas supply from Russia. The price dispute between Russia and Ukraine led to gas disruption to EU in 2006 and 2009. Russia cut off gas flow to Ukraine in January 2009, which generated humanitarian crisis in eastern European countries and made Russia become an unreliable gas supplier.

EU has been trying to keep gas security by diversifying gas sources to decrease dependency on Russia, building new pipelines to mitigate the influence of transit countries and strengthening internal solidarity.

While in current days and foreseeable future, the status of Russia as one of the main gas supplier cannot be changed. In order to improve the negotiation capability, EU Commission propose member states to strengthen coordination and speak in one voice in the external energy relations with a third country.

However, EU member states cannot develop the common policy to Russia concerning gas cooperation. Their gas relations with Russia are dependent on the own national interests. The situations such as energy mix, gas sources and transportation routes among 28 MS vary largely. It’s reasonable that some MS like Germany

¹² Source: US energy information administration.

and Italy would likely to develop bilateral relations with Russia. The objective of the thesis is to analyze the prospect of common gas policy of EU to Russia and then give some advice to ensure the gas supply security on that condition.

Quantitative methodology and comparative methodology are applied in this thesis.

1.2 Thesis structure

This thesis will explore the possibility of speaking in one voice strategy for EU on gas cooperation with Russia. Chapter one introduces the purpose of the thesis and makes literature review of current materials about the topic.

In chapter two, the gas policy of Russia and EU as well as the disparity between the two parties is presented. **Firstly**, Russian energy strategy is presented. Russian energy strategy up to 2020 stated that energy is a political instrument in foreign policy. And in practice, rich resource has often been used as a political weapon to exert influence on neighbor countries by Russian government. However, Russia holds different attitudes and takes different actions to various EU countries. To ensure demand for energy, Russia turned east and signed gas cooperation agreement with China to provide 30bcm gas for 30 years. Such behavior triggered worry in EU member states and speed up their efforts to guarantee gas supply security. **Secondly**, what actions EU has been taken are talked about. They take various measures to safeguard gas security, which could be divided into external measures and internal measures. From the external point of view, EU has been promoting essential infrastructure to diversify gas transit routes and gas suppliers and establishing mechanisms for better communication with gas partners including Russia. From the internal point of view, EU has been trying to build common energy market, improve energy efficiency and make better use of indigenous energy to improve capability to face up with possible gas disruption crisis. These actions improved the capacity of EU to face up with gas crisis as we can see in the pressure test. Besides these, EU Commission proposes member states to coordinate actions and speak in one voice to Russia for improving bargaining capacity. In next chapter, this topic will be clearly analyzed. **The last part of chapter two** shows the disparity of the two parties in gas cooperation.

Chapter three mainly presented the prospect of the common gas policy of EU to Russia and the possible measures to compensate the failure of speaking in one voice. EU officials insist that the coordination of member states' foreign energy policy will be better able to increase capability to negotiate with Russia. However, there is a slim chance to achieve the common energy policy observing from the recent reality. **Firstly**, there is a review about the proposal and development about the common energy policy made by EU level. The definition of common gas policy or speaking in one voice is stated in this part. **Secondly**, the reasons of why the common gas policy cannot be formed are presented. The situations in different countries vary from one to another in terms of the role of gas in the energy mix, capability of infrastructure to cope with possible gas disruption and the concerning attitudes of them to Russia. And the disparity among MS

concerning gas cooperation with Russia can be found in the construction of Nord-Stream, South –Stream as well as the rejection of MS to Poland’s new energy strategy. It can be concluded that EU MS put national interest as primary goal in dealing with Russia. EU provides an arena for MS to pursue their own interests but MS would not give up building bilateral relations with a third country. For large powers like Germany, France and UK, they would like to develop bilateral relations instead of being implicated by small nations. **In the last**, the possible measures that EU could take to compensate this failure are to increase internal solidarity, such as interconnection of national pipelines, improvement of storage capacity and so on. In the **conclusion**, author reiterates the disparity about gas policy to Russia among EU member states and express that the principle of “solidarity” will not be achieved currently.

1.3 literature review

Energy is one of the most important and controversial topics in EU and Russia relationships. On one hand, energy is a significant factor to enhance their cooperation and improve their relationship. They have a long history about energy cooperation and the Soviet Union began to supply oil and natural gas to Europe since 1960s. On the other hand, how to secure energy security and their different strategies also sparked tensions and deteriorates their relations (Petrovic-Orttung-Wenger 2009, P.91). There are different perceptions about Russia reacting to its energy strategy among member states. Some analysts consider Russia’s gas disruption in 2009 as signs to manipulate natural gas as a political instrument (Goldman, 2008, pp. 136-169). It is argued that energy was used by Russia’s leaders to protect their internal instability and expand external influence outside. As the largest gas company in Russia, Gazprom is controlled by the government and subsidizes domestic household and factories by providing gas at a very low price (Van Der Meulen, 2009, 847). Gazprom always enjoys a close relationship with the government and is regarded as “national champion” for Russia. In the foreign policy area, Gazprom “often acts as a tool of Russian foreign policy” (Kupchinsky, 2008). Russia is making use of its energy resource to defend its sovereignty and keep its influence sphere, especially in countries which belonged to the former Soviet Union (Romanova 2010). Russia used gas, just as it used missiles in the 1980s to disorganize NATO (Paillard 2010, p. 78). This point of view is widespread and greatly affects policy decision. Other analysts stress the interdependence between EU and Russia. In their opinion, there exists energy interdependence between Russia and the EU. Energy exports are the main source of Russia’s avenue and EU is the most lucrative market for Russia. These authors have underlined the common interests, connection and pointing to spillover factors between EU-Russia cooperation (Monaghan & Montanaro-Jankovski 2006; Stern 2006; Milov 2006a; Aalto & Westphal 2007; Hanson 2008). Therefore, “that the sustainability, efficiency and security of European energy supply will be best achieved not by hastily deciding to reduce dependence on Russian gas, but through the creation of a carefully and cooperatively managed interdependence between Europe and Russia” (Bochkarev 2009 Cambridge Energy Research, 2007:406).

EU has taken both external and internal measures to protect gas security. EU puts a lot of efforts to build new pipelines to diversify gas transmission source and routes. A lot studies based on a geopolitical approach are even devoted to “pipeline wars” (Tekin and Williams 2008, Paillard 2010). Yet, the results are not optimistic. Besides, the efforts of EU diversification may actually plays an negative effect in EU-Russia energy relations since it increase mutual mistrust and may weaken interdependence (Laryš 2010). The gas production inside Europe will continue to decrease and that makes Russia still the gas monopoly in European market. Some authors put the different of values as the ultimate reason of the policy conflicts between Russia and EU. According to Monaghan, the idea of a “liberal” EU consumer market is in conflict intrinsically with the “monopoly” Russian producer market which emphasizes the political control instead of mutual benefit and prosperity. Hadfield holds the same opinion, “Russia and the EU symbolize polar opposite of the foreign energy policy spectrum”. That explains the few fruits of EU-Russia energy dialogue and many conflicts between EU and Russian on energy area.

To increase bargaining power with Russia and increase gas supply security, EU required its member states to act in the principle of “solidarity” and speak in one voice. However, the disunity among member states and disparities of their foreign policies has already existed long before. The disjunction between the EU’s policy and national foreign policies towards Russia has been presented in numerous reports and speeches by the Commission, Council and Parliament as well as member states diplomats (Belder 2004 p.20; Mandelson 2007b; A’damukus 2008). According to A.Schmidt-Felzman, “no two EU member countries display the same political, ideological, historical, cultural and religious background conditions to Russia. The diversity of factors among 27 member states gas a significant impact on how their respective national interests regarding Russia are conceived, and sort of strategies that they pursue.” At the same time, EU officials and policy analysts believe that Russia’s “divide and rule” policy between EU member states obtained political leverage by driving a wedge between EU countries (Dempsey & Jack 2004; Leonard & Popescu 2008). Regarding the size and power and member states, Russia develops various foreign policy to engage with them in order to regain its great power status (Feklyunina 2008, pp. 615-617). There is a clear distinction between large and small member states about the function of EU. Large member states could pursue energy policies bilaterally with Russia if there is no consensus at the EU level, which means they will not to compromise their own interests to pursue a common strategy because they can realize goals in direct contact with Russia (A.Schmidt-Felzman 2008). While small member states have limited foreign policy instruments and they prefer to developing energy relations with Russia with the support of EU and achieve this by uploading their national interests to EU level. And CEE countries and Baltic countries have been “bullied” by Russia with cutting of energy supplies (Larsson 2007 pp. 78-81; Leonard & Popescu 2007; Adamkus 2008; Usackas 2008), they feel more unsecure.

On the basis of all this materials, this article will explore the divergent energy strategies adopted by EU and Russia first and then explain the reasons why there is a huge gap between the rhetoric “solidarity” and the reality.

Chapter 2 the energy policy of EU and Russia and their gas cooperation

2.1 Russian energy strategy and gas policy to EU

International relations are not determined but constructed by actors in the global arena, thus Russian energy strategy and policy are important to Europe. Russia's actions could affect member states' foreign policy directly or indirectly. Therefore, the analysis of Russia's energy strategy is vital to understand EU's response. Energy accounts for a special status in Russia's foreign policy. Russia plays a monopolistic role in EU gas market and how Russia considers its energy power is really significant because this perception will decide its foreign policies and the energy security of EU. In the following part, the author will discuss this issue in detail.

2.1.1 Russian energy strategy

Russia has rich natural resources. It is the fourth world producer of electricity, second world exporter of crude oil, first world exporter of refined petroleum products, and first exporter of natural gas¹³. Energy industry is one of the most important sectors of Russian economy. Share of Russian energy industry in overall GDP was roughly 30%, share in tax revenues to the country's budget – 51.7%, and share in export revenues – 65.9% in 2014.¹⁴

Russia has always been dependent on energy as the main motive to economic development as well as an useful weapon in realize foreign policy. Russian energy strategy is the official document containing a system of claims about the priority of long-term energy policy and the mechanisms for its implementation. On August 28, 2003, the first Energy Strategy up to 2020 was approved. The goal of the Energy Strategy to 2020 (hereinafter ES-2020) was - the most effective use of natural resources and potential of energy sector for the purposes of sustainable economic growth, improvement of quality of life, and promotion of the country's global interests . ES-2020 stated, “Russia has meaningful resources of energy and powerful fuel-energy complex, which is a basis for economy development, tool for conducting internal and external politics. Role of the country on the world's energy markets largely determines its geopolitical influence.”¹⁵ On November 13, 2009, second Energy Strategy was approved, for the period till 2030. ES-2030 merely kept the old vision: the goal was to maximize utilization and increase of effectiveness of energy complex in order to sustain economic growth, improve the quality of life and strengthen the country's global position

¹³ Central Intelligence Agency, 2014; U.S. Energy Information Administration [EIA], 2014

¹⁴ Natalia Victorovna Kuznetsova, Ekaterina Vasilievna Kuznetsova: Energy Strategy of the Russian Federation, Mediterranean Journal of Social Sciences, Vol 6 No 5 September 2015.

¹⁵ Ministry of Energy of Russian Federation. (2003, August 28). Energy Strategy of Russia till 2020. Approved by the Decree N1234-r of Government of the Russian Federation.

(MoE, 2009, p.1). In 2015, the energy strategy up to 2035 was issued and reiterated the vital of energy in internal economy and external relations.

It's clearly shown that energy plays part not only in the domestic economy development of Russia, but also in the realization of foreign policy objectives. That means Russia can and would like to use energy as a powerful weapon to bring some countries, which are dependent on its energy imports to their knees on some issues.

The energy strategy also attaches importance on the energy security of Russia. Energy security is a hot topic in EU and it is also the objective of Russia. In the Russian notion, energy security encompasses the idea of secure access to consumer markets, reduce transits over third-part territory and ensure that vital infrastructure is developed and kept under state control.¹⁶ To protect energy security, Russia develops various policies to EU member states.

2.1.2 Russian gas policy to EU

EU is most important trade partner of Russia as it is the main customer of Russian energy and also the largest investor in Russia. Gas exports to EU accounts for more than 60% of the overall exports of Gazprom Company. Comparing with oil and other energy trade, gas is more dependent on infrastructure like pipelines and LNG facility, which makes EU difficult to change suppliers and import more than 30% of gas from Russia. In this situation, Russia cultivates “divide and rule” policy to EU countries concerning energy cooperation.

Importers of Russian gas can be divided in three groups.

The first group is the former Soviet territory, basically Commonwealth of Independent States¹⁷ and the Baltic States as well as Ukraine. Russia has used energy as a useful tool against these countries in the forms of supply disruption, coercive price policy or a intimidate policy. For example, in the winter of 1992-1993, Yeltsin cut energy supplies to Estonia, Latvia and Lithuania to affect a policy change. Another example is the gas cut-offs that coincided with the adoption of Estonia's law on aliens to protect the situation for the ethnic Russians living in Estonia. The recent gas dispute between Russia and Ukraine started from Ukraine's incapability to pay energy debt. However, the political factors should not be neglected. After Orange Revolution in 2005, energy is a powerful tool to weaken Pro-West powers in Ukraine. The reasons why Russia used energy weapon more often in this areas are various. Firstly, Russia intends to control nations with geographical proximity with it as a means to keep its own sphere influence. But there is a limited policy box for Russia to exert its power as with its weak economy. Thus energy is the most convenient and powerful tool. Secondly, some countries in this region like Baltic countries are much reliant on Russian

¹⁶ Robert Larsson: Nord stream, Sweden and Baltic Sea Security, *Journal of Eurasian Studies* 2 (2011) 74–85

¹⁷ CIS members states: Armenia, Azerbaijan, Belarus, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Uzbekistan.

energy than other European states, which energy becomes a real useful tool to threaten them. Thirdly, some countries in this area have accepted Russian energy subsidies for a long time. To increase revenue, Russia has strived to cut off subsidies and improve the price to western European levels.

The second group is made up by Eastern European countries. Russia had been less willing to use energy weapon to the same extent as against its former satellites, but they are definitely being seen as affordable “collateral damage”.¹⁸ For example, gas disruption caused by disagreement on gas price between Russia and Ukraine lasted two weeks in January, 2009. Bulgaria is the most affective country because it almost totally dependent on Russia and there is no interconnection with other EU countries. In 2014, Romanian prosecutors raided the offices of Russian oil company Lukoil as part of anti-corruption probe. Gazprom cut gas supplies to Romania by 13% just hours later.

The third group consists of western states of Europe mainly, such as Germany, Italy and France. There is no cut-offs aimed at them even during the peaks of the Cold War, but gas supply to this area can be affected by Russian’s relations with gas transit countries. This reliability can be explained by its urgent need for hard currency. Energy export to these countries provide large amount of income to Russia, which makes Russia also dependent on these countries. The economic relationship between Germany and Russia is always tight. Germany is the largest trade partner for Russia in the world and Russia is a vital energy supplier to Germany. Besides their relative trade relation, Western European countries also grasp high technology in energy extraction and production which is critical to increase energy production in Russia. But after Russian annexation of Crimea peninsula, EU imposed sanctions on Russia and stopped investment and technology cooperation on oil area, while not on gas domain. That also reflects the importance of gas in their relations. Comparing with former soviet countries and eastern European countries, this group countries have diversified their gas suppliers and transit routes largely, which decrease the function of gas weapon. For example, Germany imported more than 30% of gas from Norway and built Nord Stream to reach Russian gas directly.

Russia holds different attitudes to various EU members to reach its foreign goals. There are also some common actions in these countries to protect energy security.

2.1.3 The influence of Russian gas policy

EU has always working hard to increase their gas dependency on Russia. Gas disruptions stemmed from disputes on gas price between Russia and Ukraine in 2006 and 2009 stimulated EU to make more efforts such as improving internal solidarity and striving for an external common energy policy.

But Russia’s gas policy towards EU-----“divide and rule”-----also succeeds in some degree to hinder EU’s efforts to “speak in one voice” against Russia on gas relation. Russia prefers to establish bilateral relations

¹⁸ Robert Larsson: Nord stream, Sweden and Baltic Sea Security, *Journal of Eurasian Studies* 2 (2011) 74–85

with EU member states and large powers among EU like Germany and Italy would also prefer to do the same.

There are disagreements among member states on gas policy to Russia. For example, the Nord Stream pipeline is strongly objected by Poland and Baltic nations as it would isolate them in dealing with Russia. Poland is a key driving force in the development of a common energy strategy and suggested to build a “gas-NATO” but found no support among fellow EU--members. The South Stream gained support by southern European countries such as Italy, Bulgaria, but it failed because EU stated the project violated the Third Energy Package.

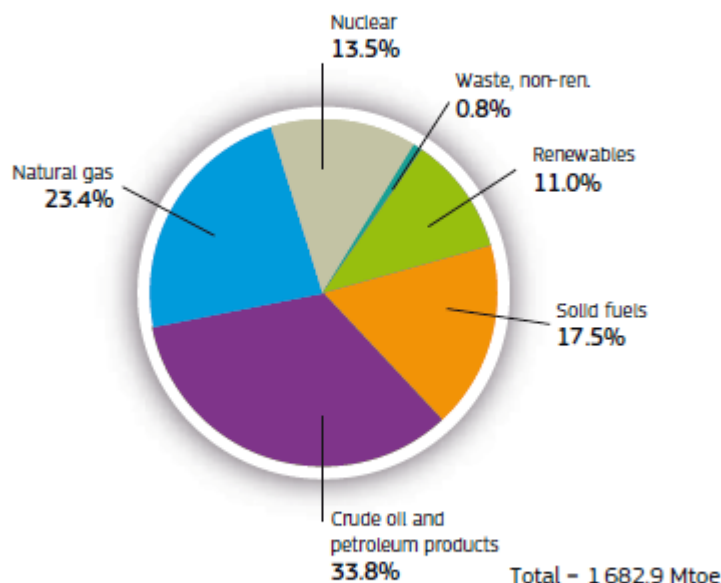
Besides the “divide and rule” policy, Russia also has been trying to control infrastructure and reach downstream markets to ensure its energy security. Most of the actions are considered as violations against EU Third Energy Package and caused disagreements in EU—Russia relations.

2.2 EU’s energy strategy and gas policy

EU is not rich in fossil fuel resources comparing with other areas in the world. At the end of 2012, the proved oil reserves in EU amount to 0.4% of global reserves, the natural gas reserves account for 0.9% global reserves and coal reserves form 6.5% global reserves. The information of shale gas is not available as exploration is still at an early age.¹⁹ The resource reserve of EU is not compatible with its economic power, which means EU is heavily dependent on energy imports to meet the industry and household needs. The internal energy production has decreased from the mid of 1990, and the energy import dependence has been on the rise since then. Until 2012, 53% of EU’s energy was imported.

¹⁹ European Commission MEMO: Questions and answers on the security of energy supply in the EU, Brussels, 28th May 2014.

FIGURE 1 – EU-28 GROSS INLAND CONSUMPTION
(as % of total Mtoe) (2012)



Source: Eurostat (preliminary data for 2012)

The consumption of gas forms 23.4% of EU's total energy consumption in 2012 as we can see from figure 1 and 66% of gas was imported. A crude oil and petroleum products account for 33.8% of the total consumption and 88% of it was imported. Solid fuels consumption accounts for 17.5% of total consumption and 42% were imported. Among energy supply countries, Russia is the most important one to EU as it offers 39% of gas, about a third of oil to EU and 26% of solid fuels, which makes Russia an important energy partner to EU.

Comparing with oil exchanges, which is traded in an international market and there is a common price for various places, gas market is more complicated because gas transportation is highly dependent on pipelines and LNG facilities, which makes gas market a regional one instead of an international market. That means EU has to import gas from Russia and cannot find replaceable supplier easily. And Russia is the only supplier of eight EU countries: Finland, Slovakia, Bulgaria, Estonia, Latvia and Lithuania. As we can see, Russia is a very important gas supplier for EU countries.

From the view point of Russia, EU is the largest buyer of its energy commodity including gas. Russian economy is heavily reliant on energy export, which accounts for about 70 percent of its annual exports. After the Ukraine crisis, EU and US imposed strict economic sanctions against Russia and exacted terrible influence for Russian economy. Thus the export of energy is more vital for its economy. While because of the dependency of EU on Russian gas, EU did not impose any sanctions on the gas trade. The gas disruption arising from the gas disputes between Russia and Ukraine in 2006 and 2009 strongly hit eastern member states and woke up EU to take measures to ensure the security of energy supply, which means the stable and

uninterrupted energy supply at an affordable price. According to the current situation, more than one third of gas was imported from Russia-----an unreliable supplier in EU' eyes, it is urgent to improve gas supply security. The actions of EU can be divided into external measures and internal measures.

2.2.1 EU external actions for gas supply security

After the gas disruption that lasted for 11 days in 2009, EU speeds up its efforts to build infrastructure to diversify gas supply routes and reach more gas suppliers. Furthermore, it established regimes to develop good energy cooperation relations with related countries including Russia.

2.2.1.1 Diversification through pipeline construction

EU has been trying to diversify gas suppliers and build more transportation pipelines. Main gas suppliers to EU include Russia (31.9%), Norway (29.4%), Algeria (13.8%), Qatar (8.7%), Nigeria (3.4%) and Libya (2%)²⁰

EU members receive gas from Russia through two main routes: first via Ukraine, with Slovakia, Romania, Hungary and Poland acting as transit states, which transported 20% of total gas from Russia to Europe. The second via Belarus, with Poland acting as transit state to supply to Germany, which transported nearly 80% of the total gas. Estonia, Finland and Latvia receive gas directly from Russia and Lithuania receives gas via Belarus.²¹ Thus, the gas supply security is easily affected by relations between Russia and transit countries. To avoid the problematic transit states Ukraine and Belarus, EU has planned to build Nord Stream and South Stream to supply to EU countries directly. Nabucco is intended to import gas from Caspian regions and Central Asia areas in order to diversify import suppliers and decrease dependency on Russia.

Nord Stream

The North European Gas Pipeline, which later changed its name to Nord Stream, launched in September 2005. The aim of the project is to bring Russian gas directly to Germany across the Baltic Sea. The target markets are Germany, France, the UK, Denmark and Netherlands. Nord Stream's major shareholders are Gazprom with 51% shares, Germany's Wintershall and E.ON Ruhrgas own 15.5% each, France's GDF Suez and the Dutch Gasunie each have a 9% stake. The gas supply for the pipeline is Yuzhno-Russkoye gas field in Western Siberia. Nord Stream will also export gas from the Yamal Peninsula, Ob and Taz bays, Shtokman field.

It includes two parallel pipelines. Combined, the twin pipelines have the capacity to transport a combined total of 55 billion cubic metres (bcm) of gas a year to EU for at least 50 years. Construction of Line 1

²⁰ See: A cold war to come? The EU seeks alternatives to Russian gas.

²¹ Anke Schmidt-Felzmann(2010): EU members States'Energy Relations with Russia: Conflicting Approaches to Securing Natural Gas Supplies', *Geopolitics*,16:3,574-599,DOI:10.1080/14650045.2011.520864

began in April 2010 following its approval by Russia, Germany and the three Nordic states (Finland, Sweden and Denmark) through whose EEZ or territorial waters and was completed in June 2011. Transportation of gas through Line 1 began in mid November 2011. Construction of Line 2, which runs parallel to Line 1, began in May 2011 and it was completed in April 2012. Gas transport through the second line began in October 2012. Each line has a transport capacity of roughly 27.5 bcm of natural gas per annum. In 2015, the twin pipeline system operated at 71% of its 55 billion cubic meters annual capacity to supply 39.1bcm of natural gas to European Union.²² As the project strengthens the EU energy market and reinforces security of supply, the project has been designated as being of "European interest" by the European Parliament and Council.

The construction of Nord Stream is helpful to mitigate the influence of problematic transit countries and increase gas supply security of western EU countries especially. However, the project is also controversial because EU member states hold various views about it. Germany is totally in favor of the project as with it can not only increase gas supply and security but also increase its strategic importance as a gas receiver in Europe. Traditionally, Germany imported gas via Belarus, Ukraine and Poland and that has made Germany vulnerable to supply interruptions aimed at the transit countries. Thus, Nord Stream is critical to avoid the problematic transit countries and ensure gas supply security for Germany. Besides, Nord Stream transports Russian gas through pipelines on the bed of the Baltic Sea and delivers it to a receiving terminal on Germany's Baltic coast, from where the gas enters the gas transportation systems of other European countries via two linking pipelines in Germany, OPAL and NEL. The project makes Germany as the gas receiver and distribution centre for other EU markets, which enhances Germany's strategic status.

Besides Germany, countries such as the UK, France, Finland, Denmark and Sweden are in favor of the Nord Stream. The UK's support is because the subsidiary aim of the project is to connect the British grid. BP held talks with Gazprom about extending Nord Stream pipeline and connecting Russian gas to UK markets directly by 2016. And UK's dependence on Russian gas supply is set to grow as Centrica announced a deal to increase gas imports to 4.16bcm from Russia, which is a direct reason of the production decrease in North Sea.

There are also some countries concerned or opposed this project because of different reasons. Environmental influences are the main concerns of **Denmark, Sweden and Finland**. But in the end, they all gave approval to the project out of economic reasons or energy security factors. Denmark is a net gas exporter and totally dependent on North Sea gas. Its approval with the project can diversify energy supply and ensure energy security. Denmark's approval coincided with an agreement of the Danish energy company DONG and Gazprom, which decided to double the amounts of gas supply via the pipeline. Sweden import gas from Denmark and Norway. The approval seemed to be influenced by the failure of "Skanded". Skanded is a gas

²² <https://www.nord-stream.com/the-project/pipeline/>

pipeline project with the primary function to bring off-shore platforms to eastern Norway and connect Norway to Denmark, Sweden and possibly Poland. In April, 2009, Norway announced to suspend the project out of increasing commercial and economic risks stemming from global crisis. Nord Stream could deliver Russian gas to Sweden to compensate for declining Danish production. Furthermore, Swedish firms and local governments engaging in the project could benefit from the profits and transportation fees. Finland was concerned about the environment of the Gulf of Finland and permitted the project after though environmental tests.

As traditional transit countries, **Ukraine and Belarus** are strongly against the Nord Stream project. In 2015, the total amount of the gas through Nord Stream accounts for almost one third of the total amount of gas from Russia. This will decrease annual government income of the two countries as well as decrease their importance as gas transit countries.

Baltic nations and Poland are also strongly against the project because it makes them more vulnerable to Russia's possible energy blackmail because Russia would turn off gas to them without affecting gas supply to western big powers. Their fear can be explained considering their historical experience and geopolitical factors with Russia. Furthermore, these countries are heavily dependent on Russian gas supply, which makes them more vulnerable to gas disruption. The Polish and Baltic states' gas market is small and their demand does not necessitate an additional gas pipeline, which made their diversification plan were not implemented. Moreover, their economic status and national power put them in an inferior position to bargain with Russia about gas price and so on. Political elites from Poland and Baltic regions have expressed worry that Russia could strengthen its military presence with the excuse of protecting gas pipeline in the Baltic region.

Polish reaction against this project is strong. Radosław Sikorski, the former Polish defense minister, said in 2006 that the Nord Stream echoed the 1939 Molotov-Ribbentrop Pact, under which Nazi Germany and the Stalinist Soviet Union carved up Poland at the start of World War II.²³ To persuade EU that Nord Stream is not in the interests of the whole EU countries, Poland and three Baltic countries planned to submit an alternative pipeline "Amber", which starts from St. Petersburg via the Baltic countries and Poland to Germany. However, the Amber project was not officially presented to the European Commission because Latvia withdrew its support. Poland also issued to strengthen the solidarity emergency mechanism of gas supplies. Although Germany and UK believed such mechanism would distort the normal function of gas market, Poland and other countries succeed to put the idea of energy solidarity to the Lisbon Treaty.

These counties accused Germany of putting its national interest higher than the whole EU's interests and pursuing bilateral relationships with Russia at the expense of the EU wider interests. Despite that Russia and Germany reiterated the commercial sense of the project without targeting any third countries, the side-effect to the traditional transit countries is unavoidable. The disparity showed among EU countries in the

²³ <http://www.euractiv.com/section/europe-s-east/news/nord-stream-a-waste-of-money-says-poland/>

construction of Nord Stream is obvious and EU members are still quarreling about whether to expand Nord Stream.

Nord Stream 2

Nord Stream 2 will be built by extending the existing pipelines with another two lines. Nord Stream 2 as agreed in the shareholders' agreement signed on 4th September 2015 is planned to be an international consortium of six major companies: Gazprom, the German companies Uniper SE and BASF SE/Wintershall Holding GmbH, the Anglo-Dutch Royal Dutch Shell plc, the Austrian OMV AG and the French Engie S.A.²⁴ It will include two new pipelines that deliver an additional 55 billion cubic meters to the existing Nord Stream pipeline which bypasses Ukraine. However, the project is controversial even than Nord Stream 1 and gained disapproval from eight countries: the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania and Slovakia. These countries submitted a letter to EU on 26 November, 2015 and said the pipeline run counter the EU interest and would destabilize Ukraine situation. Germany Prime Minister, Merkel defends this project by reiterating this project is a commercial instead of a geopolitical project.

The project would leave some European areas exposed to higher gas prices and possible Russian energy blackmail. It would make Ukraine lost annual 2 billion dollars transit fees thus weaken Ukraine financially.

The Nord Stream 2 project is a critical project and will play various effects to EU member states as to the capacity of it can reach 110 bcm. Will Russia abandon the traditional gas transit routes via Ukraine? It is not clear yet. But Russia has stated that it will not invest to pipeline repair in Ukraine. However, the increase capacity in this project will definitely strengthen Russia's leverage to these countries.

Although Nord Stream is considered as one of projects of the common interest between EU and Russia, we can see that countries hold total different views about this project. Today's Russo-European energy trade is often described as a "two-level game", which take place at both the member-state and the commission levels simultaneously. The disparity among countries occurs among all big decisions in dealing with energy relations with Russia. EU calls on member states to strengthen solidarity and speak in one voice to Russia, which EU believes could improve its power to bargain with Russia. However, big powers in EU including Germany, Italy and France developed close bilateral relationships with Russia and whether a common policy on gas to Russia can be established is in question.

Nabucco and TAP (trans-Anatolian Project)

The Southern Gas Corridor is an initiative of the European Commission for the gas supply from Caspian and Middle Eastern regions to Europe. The initiative was proposed in the European Commission's Communication "Second Strategic Energy Review – An EU Energy Security and Solidarity Action Plan" (COM/2008/781). The European Union has identified a number of partner countries for this initiative, such

²⁴ <http://www.nord-stream2.com/our-company/prospective-shareholders/>

as Azerbaijan, Turkey, Georgia, Turkmenistan, Kazakhstan, Iraq, Egypt and Mashreq countries. Uzbekistan and Iran should represent, when political conditions permit, a further significant supply source for the EU.²⁵

To open up south gas corridor and diversify gas supplies, EU planned to build Nabucco pipeline with the aim of decreasing dependency on Russia by diversifying gas suppliers in order to keep EU energy security. Nabucco is being developed by Nabucco Gas Pipeline International, an Austrian registered company that was formed in 2004. The lead partner of the project is OMV of Austria and the remaining partners include: MOL (Hungary), Transgaz (Romania), Bulgarian Energy Holding (Bulgaria), BOTAS (Turkey) and RWE (Germany – joined in February 2008) – all partners hold an equal 16.67% share of the project. The project receives blessing of the European Union and of governments concerned.

The length of it was reduced from 3900km to 1300km after eastern part of the line was replaced by TANAP--Trans Anatolian Pipeline, which is funded by Azerbaijan and Turkey. Nabucco---West started from Turkey, via Bulgaria, Romania, and Hungary to Australia. In July 2013, the Azeri BP-led consortium Shah Deniz II announced to abandon Nabucco project and chose to pursue the less expensive Trans-Adriatic Pipeline (TAP). TAP will be connected with Trans-Anatolian Natural Gas Pipeline Project (TANAP), which starts from Azerbaijan through Georgia and Turkey to Europe. TAP will cross Greece and Albania to reach the ankle of Italy and it is 500 km shorter than Nabucco. The construction of the line is crucial to EU because it would enable to import gas from Caspian region such as Iran and Turkmenistan in the future.

The capacity of Nabucco is 31bcm one year. The abortion of Nabucco resulted from many geopolitical and economical reasons. The **main reason** is there is no enough gas supply for this project. Comparing with Nord Stream and South Stream, Nabucco can not channel one of the major gas suppliers to EU markets. Middle East countries like Iraq are in political chaos and cannot be a reliable supplier. Central Asian countries like Turkmenistan and Kazakhstan are locked in their gas cooperation agreement with Russia and Turkmenistan also supply gas to China. That left Azerbaijan the only reliable and important gas provider. Out of commercial and political reasons, consortium Shah Deniz II---the controller of the largest natural gas field Shah Deniz, decided to construct TAP instead of Nabucco. TAP is 500 km short than Nabucco and only via Italy and Greece, which will decrease transit fees comparing with the transit countries of Bulgaria, Romania, Hungary and Austria. Furthermore, Nabucco project is funded by EU while Azerbaijan and Turkey are behind TAP and TANAP, which would increase their countries' strategic importance as well. There is also political consideration about this decision. Southeast EU is the traditional gas market of Russia. It is unavoidable that Azerbaijan would become a gas competitor of Russia. But Azerbaijan still would like to keep good relationship with Russia out of geopolitical factors. Russian South Stream pipeline is the rival of Nabucco project. And if Azerbaijan choose to supply gas by Nabucco pipeline via Bulgaria, Romania,

²⁵ https://en.wikipedia.org/wiki/Southern_Gas_Corridor

Hungary and Austria, that will decrease this area's dependence on Russia and defeat Russia's efforts for South Stream. It is inevitable to exert negative effect to the relation between Azerbaijan and Russia, which is Azerbaijan trying hard to avoid. So Azerbaijan chooses to abandon Nabucco.

There is another factor besides the insufficient gas supply also seems to influence their choice to support the South Stream. The third countries involved in Nabucco bear various political, social and economic problems. Iraq is in social unrest under the fights of Kurdish. RWE announced it has signed a cooperation agreement with the Kurdish regional government to assist its gas production in 2010, while Iraq oil ministry responds by publishing a statement on its website "stressing that Iraq is exporting oil and gas through the Iraq oil marketing company exclusively and there is no any other authorized party to sign contracts with international companies". It is difficult to believe Iraq can serve as a reliable source. Experts believe Turkey will use its position as a key transit country to bargain with EU and Russia. And Turkey's own gas needs are significant which means large amounts of gas intended to transit may stay in Turkey rather than transit further to EU member states. As a result, critics view Turkey as a transit country that could prove to be as "troublesome" as Ukraine for the EU.

Furthermore, Nabucco fails to get support from big countries in EU and Italy, France and Hungary have all signed bilateral agreements with Russia in support of its planned South Stream pipeline, which is criticized by other member states. We can see disparity occurs again in choosing different routes to connect South gas Corridor.

TAP is only with one third of the Nabucco capacity (31bcm), with the capacity of 10bcm, which equates to 1 percent of EU total demand. The pipeline reaches Greece and Italy, which have diversified gas supply sources already. For example, Italy can import gas from Russia, Algeria, Libya as well as Qatar in the form of LNG. However, real thirsty countries like Bulgaria and Hungary are not passed through. These countries cannot change its heavy dependency on Russia by connecting to south gas corridor recently.

There also exists bright prospect in TAP. Iran possesses 15.8% of world's total gas reserves and ranks number two in the world. It is a promising supplier to EU in the future as with its rich resource and the sanction was lifted in 2016, which enables Iran back to international economy. The sanction lift allows more foreign energy companies entering the Iranian market, which will offer advanced technology and investment to develop gas production and export to EU. In February 2016, the first technical assessment mission of EU to Iran took place to help resume the energy cooperation between the two parties. "The Iran deal opens the door to a closer EU-Iran energy cooperation," said Miguel Arias Cañete, the commissioner for climate action and energy for the 28-member bloc.²⁶ Iran is now developing its LNG export capacities as well as planning new pipelines. It is possible to involve Iran in the South Gas Corridor.

South stream

²⁶ EU considers energy deals with Iran, the national, January 18th,2016

South stream is proposed by Russia as part of its coordinated gas policy (together with Nord Stream) and is also a response to the EU's initiatives of Nabucco. South Stream is a joint Russian---Gazprom and Italian---ENI venture and later joined by France EdF. It transports gas from Russia via the seabed of Black Sea to Bulgaria, Serbia, Hungary, Austria, Slovenia, northern Italy, and may extend to France possibly. A part of it is from Bulgaria to Greece and reaches southern Italy.

South stream gains support from EU countries like Italy, France, Austria, Bulgaria, Greece, but is still aborted. The main reason for the failure of this project is that it is not compliant with EU third energy package (TEP) according to EU. TEP aims to increase integration of European energy market with the cornerstone of "ownership unbundling" principle. It means a company cannot own and operate a gas transmission network simultaneously. As this principle would discourage companies from investing, the package also allows for exemptions from such requirements. TAP obtained a series of such exemptions in May 2013 followed by SOCAR is a shareholder in the TAP consortium supplying gas to EU as well as operator of Greece's gas grid. But the European commission did not show that it would reconsider the exemption. South Stream is considered as a violation to the Third Energy Package. According to EC, international agreement between Russia and Bulgaria, Hungary, Serbia, Greece, Croatia, Slovenia and Austria need to be renegotiated. The Commission official highlighted at least three major issues about the deals: First, the EU's so-called network ownership 'unbundling' rules need to be observed, he said. This means that Gazprom, which is both a producer and a supplier of gas, cannot simultaneously own production capacity and its transmission network; Secondly, non-discriminatory access of third parties to the pipeline needs to be ensured. There cannot be an exclusive right for Gazprom to be the only shipper; Thirdly, the tariff structure needed to be addressed.²⁷ It is clear that EU is discriminate against South Stream. EU also holds double standards with regard to the offshore part of the pipeline. The example of TAP and Green stream show that pipelines fall outside of EU market are not covered by the TEP. But when Bulgaria passed legislation to grant the same treatment to the South Stream Offshore pipeline, Brussels criticize it. And Russia is discouraged from participating the tender for DEPA, but when vertically---integrated SOCAR won the tender, on one in Brussels objected.

South Stream and Nabucco have been aborted for several reasons and North Stream 1 has been in operation. Related countries have never stopped arguing during the choice of routes although EU called on to strengthen solidarity on gas issue.

2.2.1.2 International regimes to strengthen cooperation

European Union is striving to establish a rules and market based internal energy market and wants to shape external energy relations with Russia according to this principles through Energy Charter Treaty (ECT) and

²⁷ See "south stream bilateral deals breach EU law, Commission says", on Euractive, 5 December 2013

the EU-Russia energy dialogue. Its external approach can be seen as extension of internal approach. Since European commission was built through treaties on the belief that cooperation could bring more advantages, member states could better resolve their tensions and conflicts, which made their behavior predictable and improve their mutual understanding as well as trust. Hence it is understandable that the Commission believes that cooperation between EU and Russia based on rules and common norms is beneficial to all parties.

Energy Charter Treaty (ECT)

Energy Charter Treaty is a legally binding treaty under international law which provides rules on energy transit, trade and investment. Its central aim is “to strengthen the rule of law on energy issues, by creating a level playing field of rules to be observed by all participating governments” (Energy Charter 2012a). For EU member states, the purpose of ECT is to ensure countries secure and stable access to natural resource and protect a reliable energy transmission to the consumers. Therefore, EU is actively to push Russia to ratify this treaty in order to improve energy supply security.

However, Russia signed the treaty in 1994 but after many years of negotiation, it stated clearly that it has no intention of becoming a contracting partner of the ECT and terminated the provision of the treaty in 2009. The treaty’s provision on pipeline grids and transit is the most unsatisfactory part for Russia. According to “the principle of freedom of transit and of non--discrimination” (Energy Charter 2012b), Russia is obliged to open its gas pipeline to other gas suppliers regardless of “origin, destination or ownership, at non-discriminatory pricing”. That means Russian pipelines could be used for outside interests, including the “southern gas Corridor” which links gas suppliers from Caspian region and Middle East through Russian territory. Without ECT, Gazprom is monopoly in the utilization of Russian gas pipelines and controlled gas exporting from Central Asia to EU. The ratification would undermine Gazprom’s monopoly position in European energy market by compelling Russia to open up its transmission infrastructure to other gas suppliers with lower gas price such as central Asia. Furthermore, the ratification could jeopardize the take and pay contracts systems prevailing between EU and Russia. ECT is not compatible with Russian interests as a gas monopoly of EU and thus it is plausible that Russia reject it. Without the biggest gas supplier’s ratification, the effectiveness and enforceability of ECT seems less. EU lodged no claims against Ukraine despite it was against ECT provisions clearly in the gas disruption in 2009. The possible reason is both Brussels and EU member states really believe in the effectiveness of the ECT mechanism²⁸.

After the gas crisis in 2009, Gazprom’s management and Prime Minister Putin began to call on a new transit framework to replace the ECT. During the EU-Russia summit in May 2009, President D. Medvedev proposed a “New Legal Framework for Energy Cooperation”, which states the importance to create a new universally acceptable and applied energy treaty. This new kind of treaty should include all major energy

²⁸ Nikolay Kavesshnikov (2010), The Issue of energy Security in relations between Russia and the European Union, European Security, 19:4, 585-605.

producers, transit countries and consumers as well as cover all important aspects of the global energy cooperation.

EU-Russia energy dialogue

The EU-Russia Energy Dialogue was launched on 30 October 2000 at the EU-Russia Summit in Paris. The purpose is to raise all issues of common interest relating to the energy sector, including the introduction of the cooperation on energy saving, rationalization of production and transportation infrastructure, European investment possibilities and relations between producer and consumer countries. The primary goal of the dialogue is to resolve “all the questions of common interest relevant to the energy sector”.²⁹ The basic idea behind the dialogue is a simple balancing of interests: the Russians need more European investments while Europeans need secure and long-term access to Russian oil and gas. But from a more cynical point of view, the EU-Russia energy dialogue is viewed as an alternative measure for EU to push Russia to commit to ECT principles which are already rejected by Russia. Both Russia and EU share a mutual interest in the dialogue, but each of them pursues on its own agenda. EU hopes that the dialogue could form a mutually agreed legal framework which facilitates investment from both parties. Yet, Russia hopes to acquire profitable midstream or downstream infrastructure in European markets, which is clearly not compatible with the unbundling clause made by the Third Energy Package.

According to EU, this dialogue should serve as a model for EU-Russia integration in other areas. The progenitor for the dialogue is the European Coal and Steel Community of 1952, which preceded the European Economic Community of 1958 and European Union of 1992. In October 2000, Putin also expressed Russia’s intention to make use of this dialogue to develop a deeper relation with EU. After the EU-Russia Summit was over, Putin described it as a “political zenith” in EU-Russia relations.³⁰

However, although EU and Russia hold beautiful wish about the dialogue, the wish to duplicate the process of EU became empty. From 2000 until now, Energy Dialogue has born little fruit and it has mostly been a talk-shop. Hopes for “energy partnership” and a more wide ranging agreement to open up energy markets remain unfulfilled, let alone the spill effect of the energy cooperation to political entity between EU and Russia.

Why is that? There are three factors including ideational, institutional and leadership differences between Russia and EU as well as some external influence could explain. At the deepest level, the ideational factor includes informal rules: beliefs, values and culture. EU and Russia hold total different views about how to achieve energy security. After decades of integration, EU holds the belief that security can be best achieved by communication and cooperation as well as integration. The notion of sovereignty has been watered down. While Russia is striving for restore of its old status by gaining hard power and emphasizing its sovereignty.

²⁹ EU-Russia Summit(ERS)(2000). Joint Statements of the President of the European Council

³⁰ Lars-Christian Talseth: A Dialogue of the Deaf: the EU-Russia Energy Dialogue 2000-2009, RUSSCASP working paper, April 2011: p.49

In the book of “Breaking of Nations” by Robert Cooper, Russia is characterized as “modern” whereas most parts of Europe are “post-modern”. This perspective can help us better understanding that Russia’s policy focuses on hegemony, ownership and independence while EU pursues interdependence and integration. Institutional factor refers to formal rules and institutions which provide legal basis for the dialogue. Comparing with EU’s long-term and comprehensive vision about the dialogue, Russia’s aim was more short term and unclear as well as less comprehensive. It may be true that Russia wants to develop deeper and integrated relations with EU but it lacks appropriate routes to achieve it. EU wants Russia to ratify Energy Charter Treaty, which was signed in December 1994 and provided the legal framework for transit of, and trade and investment in, energy. While Russia refused to ratify the ECT and objected to the provisions regarding third-party access to its vast state-owned pipeline system. To make Russia ratify ECT was objectives of the dialogue, but it failed after many efforts.

Leadership factor means all actors that exert influence to the process of the dialogue. Russia is a more powerful and efficient political actor in contrast with EU. Despite a large bureaucracy consigned to the energy sector, the powers to make real decisions are rest with only a few people. However, Brussels are highly dependent on the consent of its member states to make big decisions. The energy mix and dependence of member states are highly diverse. Therefore, the commission’s powers are better suited for resolving technical issues than highly political questions.³¹ The mismatch between actors’ power is also a factor for the failure of dialogue.

But it is deniable that EU-Russia energy dialogue offers a platform for intense discussions and made some progress. For example, Gas Advisory Council was established as a step of restructuring the dialogue to regularize the recent participant of academic community and energy companies to the EU-Russia Energy Dialogue. The EU-Russia energy roadmap set for 2050 is also issued to identify and facilitate mutually beneficial synergies. While according to Russian officials, this roadmap has met with little enthusiasm on the Russian side and a corresponding indifference within the EU.³² In November 2009, the coordinators of the Dialogue signed an Early Warning Mechanism with the aim at ensuring rapid communication and preventing further supply interruptions on the field of gas, oil or electricity. But comparing with the original aims, EU-Russia Energy Dialogue does not work as imagined.

EU-Norway, Algeria, Qatar

Norway is the most reliable gas supplier to EU and EU has been trying to increase imports from Norway. In 2013, the Norwegian pipeline capacity was 122bcm of gas per year and the actual supply was 101.5bcm. The Norwegian government reaffirmed to maintain gas export to EU at such a level.

³¹ Lars-Christian Talseth: A Dialogue of the Deaf: the EU-Russia Energy Dialogue 2000-2009, RUSSCASP working paper, April 2011: p.49

³² Lars-Christian U.Talseth: The EU-Russia Energy Dialogue, traveling without moving, working paper FG 5, 2012/01, April 2012, SWP Berlin

Comparing with Russia, Norway is considered as a more reliable energy supplier for EU. Norway is not EU member state, but it's an European Economic Area Agreement member and therefore adopts EU energy market rules in its legislation. EU-Russia energy dialogue was launched in 2002 and aims to develop cooperation with Russia on a wide range of energy issues: international energy issues, regional energy supply and demand, policy developments in EU and Norway, implementation of EU energy rules in Norway, cooperation on technology, carbon capture and storage.³³ The recent focus on energy security has further strengthened the EU's energy partnership with Norway. Launched in 2013, the annual EU-Norway Energy Conference discusses energy cooperation. Through EU-Norway energy dialogue and the annual energy conference, they have fostered a stable energy relation, which contributes the gas supply security to EU. The Norwegian government reaffirmed to maintain gas export to EU at the current level. But the future amount of gas import from Norway is not clear because of many challenges, such as limited investment as low gas price, high cost for operation and the new gas reserves found in north-arctic is remote and hard to access. To enlarge gas imports from Norway in the future is not for sure. On 9 February 2015, the Dutch government announced a reduced 16.5 bcm cap for the Groningen field for the first half of 2015.

Table 1: Share of Algerian gas in 2008 imports of selected EU member states

Country	Pipeline	LNG	Total
Italy	32 %	100%	34%
Spain	83%	17%	35%
France	n/a	60%	16%
Portugal	100%	n/a	42%

Source: own calculations based on BP (2009)

Algeria is the third largest gas exporter after Russia and Norway. Total import amount from Algeria is possible to increase in the future. In 2013, Algeria is the EU's third largest gas supplier and occupied 11% of total EU gas imports. The main importers of Algerian gas are Spain, Italy and France. Medgaz (capacity of 8bcm/y), the Pedro Duran Farell Gasline(capacity of 12bcm/y) and the Enrico Mattei Gasline(capacity of 33bcm/y) are three main gas pipelines connecting Algeria and Europe.

³³ <https://ec.europa.eu/energy/en/norway>

EU has established platforms for cooperation and dialogue with countries in Mediterranean areas in three priority areas: natural gas, electricity system and renewable energy and energy efficiency. The gas platform was launched on 11 June 2015 with the objective of facilitating and promoting the production, transport and trade of natural gas in the Mediterranean region. This platform initiative rightly emphasizes the importance of energy cooperation in the Mediterranean and especially with Algeria. The country is the largest in Africa and a partner of vital importance to the EU. However, the main gas fields in Algeria, including Hassi R'Mel, Hamra and Rhourde Nouss are being depleted and it is urgent to develop new gas reserves to fill up the gap. There are problems such as lack of investment, technical problems and regulation issues that delay the progress of these projects. In the future, EU will improve investment for the unexploited and unexplored area in Algeria.

2.2.2 EU's internal efforts for gas security

Besides its external efforts such as building and improving infrastructure and establishing dialogues regimes to keep its gas supply security, EU is also working to improve internal infrastructure and to issue energy related rules and laws in order to construct an internal energy market. Internal infrastructure is essential to connect gas source of member states to cope with crisis. Furthermore, a well-accepted and obliged rule system can better regulate actions of member states.

2.2.2.1 Third energy package and related rules

There are three energy packages adopted by EU from 1996 to 2009 in order to establish an internal energy market. The first legislative package (Directives 96/92/EC concerning common rules for the internal market in electricity and 98/30/EC on common rules for the internal market in natural gas) was replaced in 2003 by a second legislative package, which allowed new gas and electricity suppliers to enter Member States' markets and enabled consumers to choose their own gas and electricity suppliers. In April 2009, a third legislative package seeking to further liberalize the internal electricity and gas market was adopted.

The architecture of internal energy market is clear in the Third Energy Package³⁴ and in complementary legislation³⁵. The main issues concerning with completion of the internal market includes: the liberalization of energy market, the establishment of independent regulators and the creation of Trans-European networks.

Liberalization of energy market--- Unbundling

³⁴ The Third Energy Package includes two directives and three regulations: Directives 2009/72/EC and 2009/73/EC, Regulations (EC) No 713/2009, 714/2009 and 715/2009.

³⁵ In particular, Regulation No 994/2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, REMIT, and the proposed Regulation on guidelines for trans-European energy infrastructure.

Unbundling is the separation of energy supply or generation from the operation of transmission networks. If a company which produces gas or electricity owns the transmission networks at the same time, it may prevent other energy suppliers using its infrastructure. That hinders a fair competition and can lead to a higher price for consumers. There are three models of organization: full 'ownership unbundling', independent system operator (ISO) and independent transmission operator (ITO). Ownership unbundling means all integrated companies sell off their transmission networks and no producers can hold a major share in the transmission system operator. ISO means that the entire operation of transmission network must be leaved to an independent company while energy producers may still own the infrastructure. ITO refers to that energy suppliers could own and operate the network but must do so through a subsidiary, which enjoys autonomy, independence and necessary investment. The most popular unbundling model is the model of full ownership unbundling. The ITO-model is applied by approximately one third of the gas TSOs. Today, 96 of approximately 100 transmission system operators in Europe have been certified as compliant with one of the Third energy package's unbundling models. The Commission will continue to monitor the situation and will also remain vigilant to ensure compliance with the EU competition rules.

The independent regulation system

The third energy package laid out the outlines for internal energy market but the implementation of it needs independent regulation from countries as well as EU. Regulation plays an indispensable role to ensure a transparent and competitive internal market. **National regulators** must be independent both from energy companies and political power. Governments must provide enough resource with regulators to perform their duties. To punish companies which are against third energy package, national regulators can issue binding decisions or impose penalties. Furthermore, all energy operators have to provide accurate data to regulators. Regulators from different countries in EU must cooperate with each such information exchange to enhance competition, the opening-up of the market and an efficient and secure energy market system.

In order to reach a better cooperation among energy regulators from different countries, **the European Agency for the Cooperation of Energy Regulators (ACER)** was also established³⁶. It started its work in March 2011 and it is independent from the Commission, national government as well as energy companies. The agency is mainly responsible for promotion of cooperation among national regulators; review the implementation of EU-wide network development plans; deciding on cross-border issues if national regulators cannot agree or they ask it to intervene; monitoring the functioning the internal energy market including retail prices, wholesale energy trade and so on.

Due to the cross border nature of Europe's energy market, two organizations were created to ensure the cooperation: European Network for Transmission System Operators for Gas (ENTSO-G) and European Network for Transmission System Operators for Electricity (ENTSO-E). They are responsible to develop

³⁶ Regulation (EC) No 713/2009

standards and draft network codes to help harmonize the flow of electricity and gas across different transmission systems, to draft a 10-year investment plan every two years and coordinate the planning of new network investment as well as monitor the development of new transmission capabilities.

Trans-European Networks

Decision 1364/2006/EC lays down outlines for trans-European energy networks that identify projects of common interest and priority projects among trans-European electricity and gas networks. Projects of common interest enjoy priority for the granting of financial aid provided for under Regulation No 2236/95/EC. The budget allocated to the TEN-E is mainly established for financing feasibility studies. Other instruments may also step in to part-finance investments, such as the Structural Funds in the convergence regions. Commission proposed a regulation to build a common framework for the notification of investment projects in energy infrastructure in the EU. This proposal was accepted by the Council and Parliament in February 2014. The regulation demands Member States to approve the Commission's investment projects in the area of energy infrastructure.

In a report to the June 2011 Energy Council, the Commission estimated that about EUR 200 billion of investment would be required until 2020 in energy infrastructure across Europe. In light of this estimation, the Commission, in its communication entitled 'A Budget for Europe 2020', proposed a new mechanism---the Connecting Europe Facility (CEF) to fund priority projects in the field of energy, transport and critical digital infrastructure from 2014 to 2020. In November 2013, Parliament endorsed the deal reached with the Council on the budget for the CEF, with EUR 5.12 billion earmarked for the development of trans-European energy infrastructure projects. The Regulation on energy infrastructure guidelines identifies 12 priority corridors and areas covering electricity, gas, oil and carbon dioxide transport networks, and provides measures on streamlining and speeding up permit granting and regulatory procedures for projects of common interest. In 2013 the Commission proposed a list of 248 European projects of common interest in line with the procedure and criteria set out in the regulation. This list will be reviewed every two years. In March 2014, the European Council asked the Commission to put forward by June specific interconnection objectives to be attained by 2030.³⁷

The facts about the development of infrastructure have been analyzed in detail in last part and it is essential for the completion of the internal market.

As we can see, the Third Energy Package and concerning legislation provide outlines for the internal energy market, providing common rules for the internal energy market. The construction of infrastructure is hardware for the internal market because it is essential and basic to enable gas flow freely across countries. The next part mainly focuses the progress gained in gas projects and what needs to be done in the future.

³⁷ http://www.europarl.europa.eu/atyourservice/en/displayFtu.html?ftuId=FTU_5.7.2.html, European Parliament

2.2.2.2 Improvement of infrastructure

After the two weeks long gas disruption in January 2009, European commission issued Regulation 994/2010 on Security of Gas Supply. EU has been working to implement this regulation through the improvement of infrastructure, including the implementing gas pipelines (interconnection and reverse flows) and increasing LNG facilities and underground storage capacity. **Reverse flow** is an efficient and cost effective way to increase entry capacity, and it enables countries accessible to new gas supply. Reverse flow is vital for countries with only one gas source such as Bulgaria to cope with possible gas disruption. We can see from the table that reverse flow has been substantially implemented as the number of interconnection points with this capacity has increased from 12 in 2009 to 21 in 2014.

Table2: Number of unidirectional and bi-directional cross-border interconnection points in the EU in 2009 and 2014

	In EU*		With EU**	
	2009	2014	2009	2014
Number of bi-directional interconnection points	12	21	1	3
Number of unidirectional interconnection points	37	32	24	27
Total number of cross-border interconnection points	49	53	25	30

* The analysis does not take into account low-pressure pipelines which cross the border to serve local demand and which are not part of the high-pressure transmission network and any cross-border interconnection with non EU Member States, with the exception of Switzerland. Source: JRC analysis on GIE and ENTSOG maps.

** The analysis considers all pipelines cross-border points among an EU Member State and other neighbouring Countries (excluding Switzerland). The interconnection between the Republic of Serbia and Bosnia and Herzegovina (i.e., Zvornik) is not considered.

Source: JRC analysis on GIE and ENTSOG map

As the figure shows, the new bi-directional interconnections enable gas flow in EU member states in north-south direction (with Denmark-Germany, Austria-Italy, Greece-Bulgaria and Romania-Hungary) and in east-south direction (with Germany-Poland, Austria-Slovakia). But it is not perfect yet as the Baltic region is still an energy island without gas connections to continental Europe. Moreover, southeastern Europe is much less connected compared with central and western Europe. To further complete the European gas network, European Commission adopted the first list of 248 energy infrastructure projects of common interest (PIC) in 2013 including gas and electricity transmission, storage and liquefied natural gas (LNG), which urgently need to be realized to further strengthen the integrated market. These projects can obtain financial support from EU under the Connecting Europe Facility and 5.85 billion euro has been dedicated for energy

infrastructure. The list is updated every two years to add new ones and remove obsolete ones. In 2015, 195 CIPs were presented on the list.

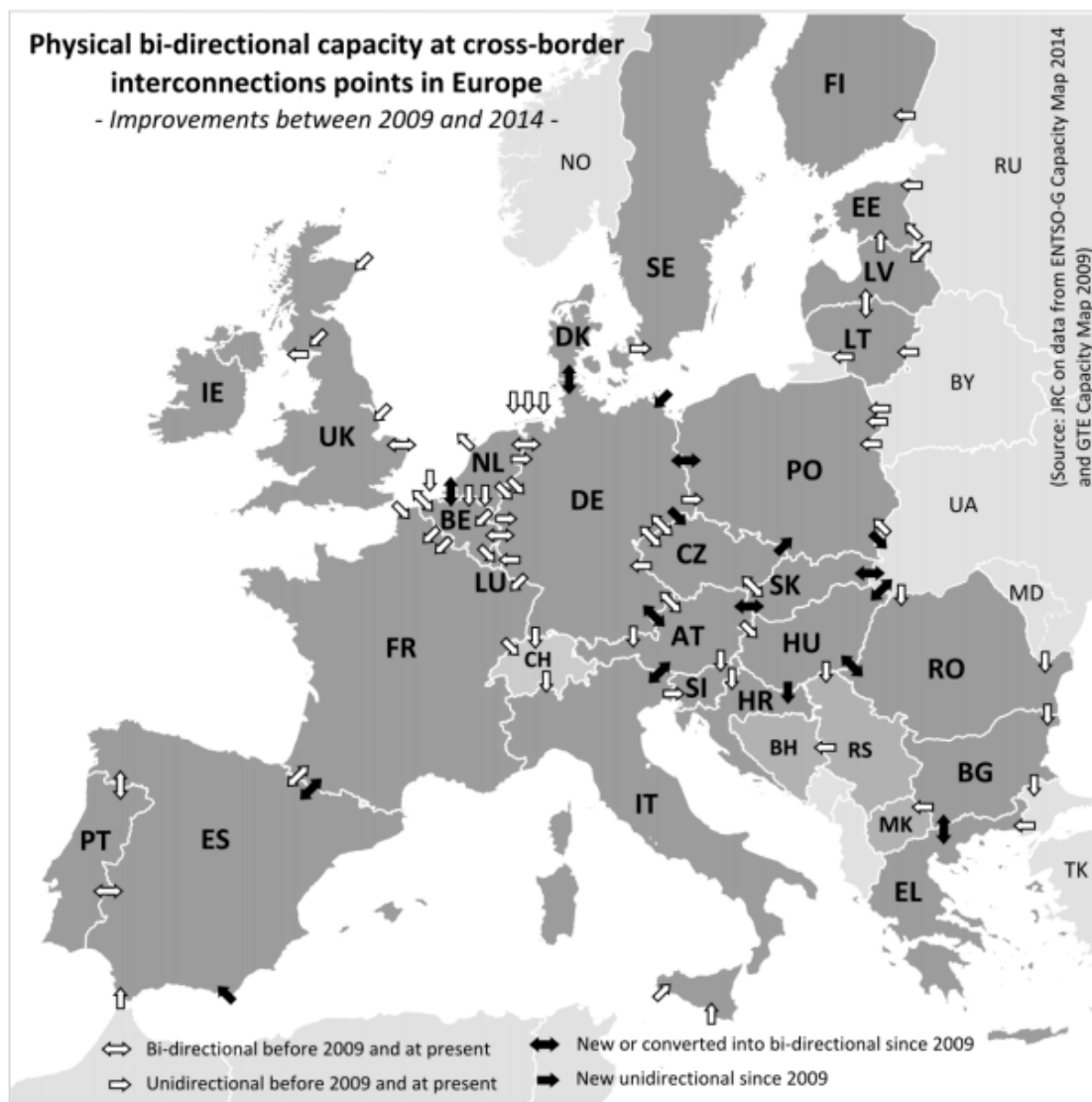


Figure2: Map that indicates the physical bi-directional capacity (i.e., reverse flow) at cross-border interconnection points in the EU and Switzerland for 2009 and 2014, pointing to locations where improvements in the physical bi-directional have taken place

EU pays utmost attention to end the energy isolation of Baltic regions and to integrate these countries to the European gas network. GIPL and Baltic connector are on the CIPs lists and will get financial aid from EU. **GIPL** is the first gas pipeline to connect Poland and Lithuania and is also the first gas pipeline to connect Baltic regions and European continent. As a project of common interest, GIPL obtained 295 million euro via the Connecting European Facility (CEF) and the total cost is 598 million euro. The pipeline is planned to finish by 2019. The capacity of the pipeline is 2.4 billion cubic meters from Poland to Lithuania one year. The construction of this pipeline is vital to end the isolation of three Baltic countries and diversify its gas source by connecting the continental Europe.

Baltic Connector will be the first gas pipeline to connect Finland and Estonia and it is also on the list. It could transport gas in both directions and could end the isolation of Finland, which is fully dependent on

Russian gas supply. The pipeline will be operational by 2020 and is with the capacity of 7.2 million cubic meters per day. Once completed, Baltic connector and GIPL will help finalize Baltic gas ring and improve gas security of the eastern Baltic Sea region.

As with southeastern Europe, Bulgaria is the most vulnerable and the related projects are also on the list. IGB project---Greece and Bulgaria

The gas interconnector Greece-Bulgaria (IGB pipeline) provides a direct link of gas pipeline transmission between Bulgaria and Greece. The project is financially supported by EU through the European Energy Program for Recovery (EEPR). It will play a strategic role in the southeastern Europe to diversify gas source and tackle with possible gas crisis for Bulgaria, which was affected most in the gas disruption in 2009. It could be connected to Trans-Adriatic Pipeline and enable Bulgaria to import gas from Azerbaijan. The pipeline will commence its construction in may 2016 and should be ready by mid-2018. The total cost of the project is likely to reach EUR 225 million and will have an initial annual transit capacity of 3 billion cubic meters (bcm), which could be upgraded to 5 bcm at a later stage.³⁸

Giurgiu-Ruse pipeline--- Romania and Bulgaria

The pipeline has a maximum transport capacity of 1.5 billion cubic metres of gas per year from Romania to Bulgaria, and an initial capacity of 500 million cubic meters per year from Bulgaria to Romania. The project will be finished by August in 2016. It is important for both countries to diversify gas supplies especially for Bulgaria.

IBS---Serbia and Bulgaria

Serbia and Bulgaria have signed an agreement on the construction of a gas interconnection in 2015. The pipeline is expected to be built by 2018 and for gas to start flowing through it in 2019. European Commission Vice-President for the Energy Union Maroš Šefčovič said on June 10 that the gas interconnection project was one of the European Union's priorities and that Brussels would consider giving financial support to the project.³⁹

The two-directional gas pipeline is 150 kilometers with annual capacity of 1.8 billion cubic meters. The gas interconnection with Bulgaria could offer Serbia the possibility of receiving gas flowing through the Trans-Adriatic Gas Pipeline (TAP) and the Trans-Anatolian Gas Pipeline (TANAP), but also the liquefied natural gas (LNG) terminal in Alexandroupolis, which will be connected to TAP.

The "European Energy Security Strategy" which was adopted by European Commission on 28 May 2014 identified LNG as a relevant tool for diversification. Thus LNG is considered as one of the most efficient tools to short terms gas disruptions. The number of re-gasification plants has increased from 17 to 22 from

³⁸ Natural gas Europe: Greece, Bulgaria seal the deal on IGB, December 11th, 2015, <http://www.naturalgaseurope.com/greece-and-bulgaria-agreement-igb-27058>

³⁹ Natural gas Europe: Serbia, Bulgaria to work on gas interconnection, June 24th, 2015, <http://www.naturalgaseurope.com/serbia-bulgaria-to-work-on-gas-interconnection-24245>

2009 to 2014, with two floating storage and re-gasification units (one in Italy and one in Lithuania) and two on-shore plants (one in the Netherlands and one in France). The nominal annual aggregated send-out capacity increased from 134 to 189 bcm per year.⁴⁰ As Table 1 shows, Spain and the United Kingdom have 10 LNG facilities together and exert an important role in EU as LNG hubs. However, the capacity to transfer gas from Spain and the United Kingdom to other areas of EU is restricted for many reasons, such as LNG price is much higher than gas via pipeline from Russia. One LNG facility in Baltic region needs to be mentioned. **Klaipeda LNG terminal** in Lithuania started operate in 2014 and enable Lithuania as well as its neighbors to access alternative gas. Although it is not on the list of CIPs, it is an important move to realize gas independence to some degree. Before gas pipeline interconnections are finished, this LNG facility would play a big part. It has a maximum capacity of 4 billion cubic meters one year. For now, the five year contract between Lithuania and the Norwegian company Statoil, will provide only 0.54 bcm of gas annually. This is an estimated minimum capacity at which the Klaipeda LNG facility needs to operate to pay for itself and meet roughly one fifth of annual Lithuania needs. It improved Lithuania's position to renegotiate on gas price with Gazprom. In 2014, Gazprom agreed to cut Lithuanian gas to 370, a reported discount of 20 percent. The under-constructed and finished infrastructure including pipelines, LNG and storage facility in Baltic regions will end the gas isolation of the three countries and improve their security.

Table 3: Total number of LNG facilities, nominal annual aggregated capacity and maximum daily aggregated send-out capacity by Member State in EU in 2009 and 2014

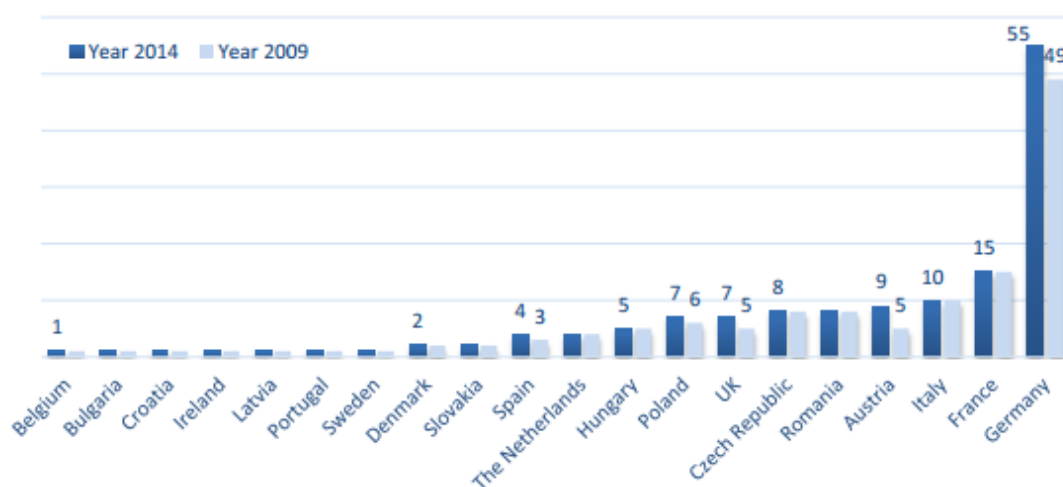
	Number of facilities		Nominal annual aggregated capacity (Bcm/y)				Maximum daily aggregated send-out capacity (Mcm/d)			
	2009	2014	2009	2014	Change 2014-2009	Percent change 2014-2009	2009	2014	Change 2014-2009	Percent change 2014-2009
<i>Belgium</i>	1	1	9	9			40,8	40,8		
<i>Greece</i>	1	1	5,3	5,3			17,6	17,6		
<i>Lithuania</i>	-	1	-	4	4	+	-	11	11	+
<i>Netherlands</i>	-	1	-	12	12	+	-	39,6	39,6	+
<i>Portugal</i>	1	1	5,5	7,9	2,4	43,6	21,6	32,4	10,8	50
<i>France</i>	2	3	17	23,8	6,8	40	66	93,8	27,8	42,1
<i>Italy</i>	2	3	11	14,7	3,7	34,7	36,9	50,9	14	37,9
<i>United Kingdom</i>	4	4	31,8	52,3	20,5	64,5	141,8	165,6	23,8	16,8
<i>Spain</i>	6	6	54,4	60,1	5,7	10,5	158,7	164,7	6	3,8
Total EU	17	21	134,0	189,1	55,1	41,1	483,4	616,4	133	27,5

Underground gas storage facility (UGS) would serve as a buffer in gas disruption scenarios. According to GSE there are 143 underground gas storage facilities (UGS) facilities in the EU in 2014 and improved by 11% compared with 2009. The total capacity is 100Bcm in 2014 with a growth of 21% than 2009. We can see from table 1 that the majority of UGS facilities located in central-western Europe. There are 55 UGS facilities in Germany in 2014, accounting for almost one third of the total numbers. Italy and France have 10

⁴⁰ : Rodríguez-Gómez N., Zaccarelli N., Bolado-Lavín R.; 2015; Improvement in the EU gas transmission network between 2009 and 2014; EUR 27522 EN; doi: 10.2790/708926

and 15 respectively in 2014. The UGS capacity in southeastern Europe still needs to be improved. Chiren UGS is the sole gas storage facility in Bulgaria and to increase its capacity is also on the CIPs list. Bulgaria plans to double the capacity of the Chiren storage at a total cost of more than 200 million euro and the project will get financial support from EU. **Inčukalns gas storage facility** in Latvia is the only functioning gas storage facility in the Baltic region. The highest capacity is 4.47 billion cubic meters, of which 2.23 billion meters are active and are enough to meet two years' of consumption of Latvia.⁴¹ The gas storage is also used by Estonia, Lithuania and Russia. Poland may also become a customer when the interconnection is accomplished. The storage facility is very important to balance gas demand and secure gas supply in this energy isolated areas currently.

Table 4: Number of UGS operational at the end of the year



Source: JRC analysis on GSE maps for 2009 and 2014, and from LBEG 2010, 2013

As of the adoption of the Security of Supply Regulation⁴², Europe is now in a better situation to deal with gas disruption crisis today than seven years ago. Stress test exercise in 2014 is conducted to assess the resilience of the European gas system to cope with a severe disruption of gas supply to the EU in winter. It shows the implementation with the regulation on gas supply security indicates clear improvement in the gas supply security situation of EU since 2009.

In 2011 heads of member states recognized the importance of the internal energy market and set a clear deadline for its completion by 2014. A well-integrated energy market is a fundamental pre-requisite to achieve the energy objectives: energy in EU should be affordable and competitively priced, environmentally sustainable and secure for everybody. Although it was not finished by time, it gained many progress in many respects. The process of completing internal gas market needs both hardware such as perfect of

⁴¹ <http://www.lg.lv/?id=194&lang=eng>, Latvijas gāze.

⁴² Regulation(EU) No 994/2010 concerning measures to safeguard security of gas supply and repealing Council Directive 2004/67/EC, OJ L 295/1

infrastructure and software, and software, namely a common rules system. The architecture for the internal energy market is laid out in the third energy package and in complementary legislation.

The progress of internal energy market

In 2011 the Heads of State or Government admitted the importance role played by an internal energy market and decided to complete it by 2014, underlining that no EU Member State should remain isolated from the European gas and electricity networks after 2015⁴³. In November 2012 the Commission reported exhaustively on the state of the internal energy market, taking stock of what had been achieved and looking forward by identifying three main challenges to focus future work on⁴⁴. The challenges related **firstly** to the need to implement, apply and act in accordance with existing legislation, **secondly** to the need to make our energy systems fit for a low-carbon future and **thirdly** to put the consumer centre stage as a key enabler of the necessary transition and also as the ultimate beneficiary of liberalization efforts.

In 2014, EU published an annual report⁴⁵ on the development of the internal energy market. There are many positive results achieved. On the aspect of **common rules**, Network Codes are being developed and applied in the gas and electricity wholesale markets. Priority needs to be given to allocation capacity and congestion management of the networks in order to enable all participants utilize infrastructure fairly and non-discriminately. In 2013, PRISMA-platform was established, on which the interconnection capacity for the networks of 28 TSOs responsible for transporting 70% of gas in Europe is auctioned in a transparent and uniform manner. The Polish GSA-platform and the Hungarian-Romanian RBP are also early implementation of the gas network code on capacity allocation.⁴⁶ Moreover, rules made in the 2011 REMIT Regulation⁴⁷ improve oversight on market integrity and market abuses, thus enhance transparency.

In terms of gas price, wholesale gas prices remained stable between 2008 and 2012. February 2012 and March 2013 were much colder than predicted, but markets continued to function well, sending gas to where it was most valued and preventing shortages from occurring anywhere in Europe.

Improvements in gas infrastructure are significant. Many missing gas pipelines are completed or under construction. The new LNG facilities diversify gas suppliers and strengthen positions to negotiate with Russia. Cross-border trade in gas between EU countries has increased. Gas pipelines are also being used more efficiently thanks to common rules on the use of gas networks. The interconnections of gas pipelines

⁴³ Conclusions of the European Council of 4 February 2011, https://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/trans/119253.pdf

⁴⁴ Commission's Communication "Making the internal energy market work" of 15 November 2012, http://ec.europa.eu/energy/gas_electricity/doc/20121115_iem_0663_en.pdf

⁴⁵ European Commission "Progress towards completing the Internal Energy Market" of 13 October 2014, http://ec.europa.eu/energy/sites/ener/files/documents/2014_iem_communication_0.pdf

⁴⁶ European Commission "Progress towards completing the Internal Energy Market" of 13 October 2014, http://ec.europa.eu/energy/sites/ener/files/documents/2014_iem_communication_0.pdf

⁴⁷ Regulation(EU) No 127/2011 on wholesale energy market integrity and transparency, OJ L 326/1

diversify gas supplies. Several long term gas contracts have been renegotiated with Russia which cut the price and increase flexibility. EU legislation makes sure that energy companies cannot exclude competitors from access to pipelines or withhold the construction of important infrastructure. EU rules also guarantee fair trading on wholesale markets and prevent price manipulation

There are also challenges although progress has been made. Some critical gas infrastructures to ensure gas security are not completed out of many reasons. Many rules of legislation are not completely implemented by member states. There is a long way to go to complete the construction of internal energy market.

However, there is a long-time debate about whether an internal market itself will enhance the gas supply security. The profit-oriented actors in market would like to import the cheapest gas. Therefore, it may not invest for the infrastructure which connects the normally uncompetitive gas sources to diversify supplies.

The possible result of the internal market is to increase rather than decrease dependence on Russia and this is not the aim of EU.

2.2.2.3 Russia's reaction to EU gas market liberalization

Downstream restructure

Gazprom, as the largest gas company in Russia, is a model of vertical integrated gas company. To consolidate and improve its exports, Gazprom has been attempting to acquiring assets in downstream distribution and transmission companies, and even in gas-consuming industries. Downstream integration would not only ensure its export, but also produce more profits by capturing the profits margins of middlemen in the various downstream segments. To reach this goal, Gazprom has started to acquire assets abroad since the end of 1980s by setting up joint ventures in transmission, marketing and trading with incumbent operators in Europe. It went to create marketing subsidiaries in certain European countries and acquire stakes in local companies. For example, in Austria, Gazprom could sell gas directly to customers through subsidiary GWH and Centrex. In Germany, Gazprom holds shares in Wingas, WIEH and WIEE. And in Italy, it holds possible 10% stake in ENI power with direct sales of gas for electricity production. The core of the Third Energy Package is “unbundling” of gas production company from the distribution and transmission networks, which could allow new gas participants make use of networks in a non-discriminative way and at a fair price. The liberalization of gas market leads to more competition among gas sellers and finally benefits consumers. To avoid “indiscriminate acquisition” of EU midstream facilities by non-EU actors, Commission enacted a “reciprocity clause” applicable to third countries, which stipulates companies of non-EU members are authorized to operate in EU markets if abiding the same unbundling principles within the internal market. And the investment undertakings from companies of non-EU members would be blocked if deemed detrimental for energy security of EU. In Russian perspective, the third country clause is “anti-Gazprom” clause because it obstructs Russia's access in the EU market as it's an integrated company. This clause is opposed by Russia and Vladimir Putin said that “the third energy package could be

equaled to confiscation of property”. Lithuania is the first country to implement the unbundling principle. In 2012, Lithuanian government decided to implement full ownership unbundling in its main gas company--- Lietuvos Dujos, which was owned by Gazprom, E.ON and Lithuanian state. It reached agreement with Germany E.ON and purchased its share. But Gazprom refuses the purchase and keeps exerting pressure on Lithuania. This incident is important because it serves as a model for future.

Amendments of take or pay contract

Liberalization of gas market would lead to greater competition among suppliers and more spot market sales, which makes long-term contracts a friction between EU and Gazprom. EU authorities consider that take or pay contract is contrary to the Union’s competition policy and is obstacle for new participants’ access in EU market. It is unavoidable for Gazprom to re-examine of these long-term contracts or re-negotiate some clauses which are deemed incompatible with the flexibility needed for the operation of a single natural gas market.⁴⁸ Among the “questionable” clause are those concerning the duration of contracts, the price indexation formula and flexibility regarding minimum and maximum quantities the purchaser must take⁴⁹. When formulating contract prices, the gas company is called to take spot price indices into consideration because there is a substantial gap between gas price on spot market and the oil-indexed prices in long-term contracts. Between August 2008 and November 2009, spot prices were on average 50 percent lower than prices indexed to crude and petroleum product prices in take or pay contracts in Europe.⁵⁰ Some European gas companies including E.ON and ENI have been negotiating with Gazprom to amend their contracts. According to the press, German companies have achieved positive results with regard to gas price and volumes.

Enhance export capability

Russia has finished construction of Nord Stream 1 which bypasses Ukraine and connects EU and Russia directly. Nord Stream 2 is also on plan and will greatly improve the export capacity. Besides ensure its market shares in Europe, Russia also works hard to ensure gas demand by diversifying its markets. Russia realizes its over dependency on gas export to Russia and decides to seek alternative markets, such as China, Japan and South Korea. Certain reserves in Western Siberia being developed as part of the Altai project could be devoted to supply for China.

⁴⁸ Chevalier, J.M. and Percebois, J., 2007. *Gaz et electricite: un defi pour l’Europe et pour la France*. La Documentation francaise, Paris

⁴⁹ Sadek Boussena and Catherine Locatelli: Gas Market developments and their effect on relations between Russia and the EU, March 2011, OPEC Energy Review.

⁵⁰ Sadek Boussena and Catherine Locatelli: Gas Market developments and their effect on relations between Russia and the EU, March 2011, OPEC Energy Review.

Chapter 3 the reason for failure of common external gas policy of EU

3.1 definition of a common external energy policy

A common external energy policy includes the diversification of energy sources, the security of energy transmission routes and a respond mechanism in energy supply crisis etc. In this article, a common external energy policy refers to a common stance as well as a common recognized strategy of member states when dealing with gas relationship with Russia.

Energy is a core issue during the process of European integration, the European Coal and Steel Community (the ECSC) established in 1952 and the European Atomic Energy Community Treaty (EAEC) founded in 1957 provided examples of early supranational governance in the energy area. The signing of the Merger Treaty in 1965 created the European Community (EC) by incorporating ECSC and EAEC under the control of the same set of institutional structures and additionally creating the European Economic Community (EEC) to initiate economic integration. Since then, the focus has gradually shifted to economic integration and member states began to follow different paths which reserved energy as a state competency rather than EU level issue.⁵¹ While in the oil shock in 1973, when members of OPEC decided to increase prices of oil, the economies of EU member states were affected greatly. The oil shock led the Commission to advocate the precaution that “to reduce the risk of failure of certain streams of supply, sources must be sufficiently spread and none must occupy a too exclusive place.”⁵² But the suggestions of the Commission are mostly ignored until 1990s. The power of the Commission is limited as member states are reluctant to cede sovereignty to a supranational authority.

The 1986 Single European Act introduced measures to establish an internal market by the end of 1992, providing the groundwork for legislation on the internal energy market implemented from the 1990s. Energy external objectives lacked substantive legislation to achieve them. No Community action was set out in the external dimension in either Maastricht (1992), Amsterdam (1997) or Nice (2001) Treaties.

The energy demand of EU has been increasing with economic development and the depletion of its own energy. To cut off emissions of carbon-dioxide and fulfill the promise to tackle climate change, gas is a better alternative and plays an important role in the energy mix in EU member states. Out of geographical proximity and the rich gas reserves, Russia is the main gas supplier to EU. After the gas disruption in recent years, EU calls on the member states to act in a “spirit of solidarity” to ensure the gas supply security.

To act in a “spirit of solidarity” or to speak in “one voice” has been reiterated in various official documents and in EU legislation since 2004. The idea of a common energy policy was proposed at the Hampton Court

⁵¹ Eda Kusku, “enforceability of a common energy supply security policy in the EU: an intergovernmentalist assessment”, *Caucasian Review of International Affairs*, VOL.4 (2)---Spring 2010,

⁵² Keith Fisher, “A Meeting of Blood and Oil: the Balkan Factor in Western Energy Security,” *Journal of Southern Europe & Balkans* 4, no:1 (2002), 77

Summit in October 2005. After the Summit, the European Commission published a Green Paper on March 8, 2006, which issued the necessity of cooperation among EU. In the speech “The External Energy Policy of the European Union”⁵³, J. Solana said “We also need a credible European external energy policy. Clearly, we do not have one yet. In 2006, the European Council endorsed the paper "An external energy policy to serve EU energy interests". But we have to match words with deeds. It is up to us to avoid the kind of fragmented, bilateral negotiations which leave all of us worse off. A more united, and comprehensive approach would enhance our bargaining position. Perhaps this cannot happen overnight. But it's important to get started. For instance by ensuring a better flow of information on bilateral negotiations. And by showing more discipline and loyalty within these bilateral settings to wider European commitments.” The Polish Prime Minister Donald Tusk proposed a Musketeer’s Pact in 2005 which requires fellow members to assist if energy supplies to any state were under threat. In the speech “European Energy Security Policy” made by A. Piebalgs, he said “the third driver of energy security is being more united and disciplined in our external energy relations. Promoting sound markets principles and investment protection in our neighbor countries and beyond. And developing joint crisis mechanism and strategic reserves.”⁵⁴

The proposal of July 2009 for a Regulation to replace the 2004 Gas Security of Supply Directive emphasized “member states should devise specific measures to exercise solidarity, including. commercial agreements between natural gas undertakings and compensation mechanisms.” European Commission proposed member states to act in solidarity spirit when signing agreements between three or more member states and to compensate economically in the event of a supply shortage at a pre-defined cost.⁵⁵ There is a shift in the denotation of solidarity from acting in the “spirit of solidarity” to an arrangement on financial compensation. In response to Russian gas supply disruption and because the eastern member states’ concerns about the reliability of Russian gas supplies, a European Parliament report in 2007 urged member states to consult and keep each other informed of major bilateral energy projects and agreements with a third country and to work with the European Commission to “neutralize” any negative effects of bilateral agreements that run contrary to other states’ interests, “in accordance with the principle of solidarity”⁵⁶. While the reality is that member states’ energy policy continues to defy the expectation of the solidarity and cooperation. Many authors have demonstrated that the European Commission’s effort for an EU external energy policy is beneficial to itself to increase its influence.

⁵³ J. Solana “ the external energy policy of the European Union”, *speech at the annual conference of the French Institute of International Relations (IFRI)*

⁵⁴ A. Piebalgs, ”European Energy Security Policy”, *Speech as the European Business Summit, 21 Feb 2008*

⁵⁵ Anke Schmidt-Felzmann(2011) EU Member States’ Energy Relations with Russia: Conflicting Approaches to Securing Natural Gas Supplies, *Geopolitics*, 16:3, 574-599

⁵⁶ European Parliament, “Report on towards a Common European Foreign Policy on Energy (2007/2000(INI),” Committee on Foreign Affairs A6-0312/2007 (11 Sep. 2007) section B, para. 27, p9

Although EU has addressed repeatedly that the solidarity among member states when dealing with third gas supplier could strengthen bargaining power and improve gas supply security, the reality is that there is no political consensus on strategies about how to deal with gas relationship with Russia and member states cannot agree to have a common and collective stance. In contrast, the solidarity mainly concentrated on seeking practical, technical agreements among member states to help each other tackle gas supply reduction and survive in gas crisis. There are various reasons for a lack of a common stance when dealing the gas relationship with Russia, such as the gas dependence on Russia, diversification situation and geopolitical factor. Furthermore, compared with bilateral gas relationship pursued by EU member states, will a common stance bring more benefits to EU countries is still not clear. The appropriateness of the EU's Internal Energy Market liberalization as a means of achieving energy supply security is itself highly contested. In fact the objectives pursued by EU member states towards Russia are much more closely related to the Regions and Empires approach than the Markets and Institutions view on energy relation with Russia.

3.2 factors about failure of a common external policy to Russia

The recent level the energy integration inside EU shows that there is a potential for cooperation but only up to point where member states would disagree about the best course of action⁵⁷. Energy is a sensitive and significant area for a nation therefore member states are reluctant to transfer this competence to the supranational level, which is evident that the energy chapter of Lisbon Treaty has additional clauses that provide member states with the ability to keep supply of energy as a state competence. Although solidarity and a common energy policy are reiterated in different official papers and speeches, it is clear that different member state still continue their own gas policy with Russia.

3.2.1 Reasons of divergence among member states in a common gas strategy to Russia

A number of factors lead to this consequences. **Firstly**, the energy mix in different member state varies greatly thus the status of gas in their energy consumption is different. Besides, the gas dependency on Russia in EU member states differs from one and another. The western and old member states are more diversified in gas supply both in sources and routes, while CEE countries are more dependent on Russia because their geographical location and lack of alternatives. **Secondly**, the disparity of the bargaining power and standing in relation to Russia is huge. Countries like Germany, France and Italy import large amount of Russian gas and contribute greatly to Russian economic revenue, which enable them in strong positions to negotiate with Russia in gas supply contracts and gas price and so on. But, CEE countries such as Poland or Bulgaria do not import so big quantities thus they are not in a favorable positions to negotiate with Russia. **Finally**, member

⁵⁷ Eda Kusku, "enforceability of a common energy supplu security policy in the EU: an intergovernmentalist assessment", *Caucasian Review of Internatinal Affairs*, VOL.4 (2)---Spring 2010,

states have total different attitudes about the reliability of Russia as a gas supplier. Because of historical and geopolitical experience, new member states like Poland and Estonia are suspicious about Russia's reliability. Yet, the old member states underscore the benefit to cooperate with Russia. How countries assess Russia as an international actor and how they assess Russia's reliability as a gas supplier contributes greatly to what energy policy they pursue. In conclusion, member states have their own national preference out of their own energy mix, gas dependence on Russia, bargaining power as well as attitudes to Russia.

External energy policies of member states are driven by their own country interest instead of the whole interest of EU. That means a common gas policy would be supported only if the policy fits for the interest of member states, especially the powerful member states such as France, Germany, Italy and UK because their choices are decisive. With the enlargement of EU in 2004, 2007 and 2013, the energy dependence of EU to Russia reinforced with more CEE countries' access. These countries such as Poland, Slovakia and Bulgaria hold negative attitudes against Russia out of historical and geopolitical experience. They would like to secure energy security through this supranational organization and have been calling on EU to take strong positions against Russia and to decrease dependency on Russia. Apparently, western EU member states are inclined to continue or even improve cooperation with Russia because the relative low price of gas. There is therefore no consensus about a common gas strategy to Russia.

Firstly, energy mix differs greatly from western member states and CEE countries. To protect energy supply security, they have put emphasis to different energy. For example, countries like France, Finland and the UK are heavily rely on the nuclear energy. More than 40% gross energy consumption is derived from nuclear in France in 2012⁵⁸. And Baltic countries are working to build nuclear plants to decrease its energy dependence on Russia. But some countries are apprehensive about nuclear energy, such as Germany, Austria and Denmark. After Fukushima nuclear leak accident in 2011, Germany started to consider give up nuclear power and announced that it will shut off all the 17 nuclear power plants before 2020. The heterogeneity of energy production leads to different levels of vulnerability vis-à-vis external energy suppliers. Moreover, member states vary greatly about the percentage of total gas imports that from Russia, which means that some countries are more vulnerable than others if there is a gas disruption. Member states can be divided into three groups concerning their dependency levels on Russian gas. The first group is countries with the lowest dependence on gas imports from Russia, including those countries which import no Russian gas at all. This group includes Spain, Portugal, Denmark, Ireland, Netherlands and the UK and so on. Denmark and Netherland have rich gas resources and are net gas exporters to other EU countries. Therefore they are not enthusiastic about gas import security from Russia. And for countries like Spain and Portugal are geographically remote for Russia and do not have connected pipelines, they import gas from Algeria, Libya through pipelines and import LNG gas from Qatar. The second group is made from countries with medium

⁵⁸ <https://www2.deloitte.com/content/dam/Deloitte/global/Documents/Energy-and-Resources/gx-er-merket-reform-france.pdf>

dependence on Russia, such as Germany, France and Italy. They do import large amount of gas from Russia which constitutes the majority of Russian gas exports to Europe. Gas is substantial in their energy consumption and their imports contribute large amount of cash for Russia. Germany, France and Italy established special relationships with Russia to ensure energy security. The last group encompasses member states with a high dependence on Russia, including Finland, Estonia, Lithuania, Latvia, Slovakia and Bulgaria which rely 100% on Russian gas. And countries like Poland, Bulgaria and Estonia consume a great amount of coal, which accounts for more than 30% of their energy mix. In order to fulfill the greenhouse emission task, these countries would decrease coal consumption. Compared with other low-emission energy, gas is a good alternative and the imports of gas may climb up in the future. It is clear that the role of gas from Russia varies so greatly among member states. Some countries in Western Europe import no gas from Russia and a gas disruption would pose no threat to them. Therefore they are not as zealous as some eastern European countries which almost 100% dependent on Russian gas in the common external gas relations of EU. From this point, it is reasonable and understandable that countries hold different positions in gas relationship with Russia. Furthermore, countries with high dependency on Russia also lack of accessible alternatives while western member states are more diversified in gas supply. Germany imported gas primarily came from Russia (45%), the Netherlands (26.5%), and Norway (25.9%)⁵⁹ in 2012. Italy imported 35.2% of total gas from Russia, 32.2% from Algeria and LNG gas from Qatar in 2012⁶⁰. France imports gas from Russia, Norway and Algeria. Sweden receives gas from Denmark although its proximity to Russia. However, CEE countries do not have LNG terminals and other alternatives of gas source. They are the most vulnerable countries during a gas disruption.

Secondly, the gas volume imported by member states are also influence their bargaining position with Russia. The gas relationship between EU and Russia and is interdependent. To ensure affordable and stable gas supply from Russia is important to EU. Russia's interest lies in the stable demand of gas because EU member states' energy import is vital to Russian income. Germany and Italy import large quantities of gas from Russia every year and their gas volumes together account for almost half of all Russian gas supply to EU. This put them in a stronger position to bargain with Russia about gas price as well as gas contracts. This also can better secure their gas supply from Russia because it would cost greatly for Russia too if there is a gas disruption. Yet, countries with small quantities of gas imports from Russia are in a weak position because they cannot cause big harm to Russia. Moreover, the share of Russian gas supplies in total energy consumption is different distinctly between old and new member states. Some CEE countries consume about three times more gas in their national energy consumption than the western member states. Russian gas is of greater importance for the new member states. For bigger and powerful member states, gas relationship

⁵⁹ Source, Eurostat

⁶⁰ AEEG, 2013 National report to the European Commission

between them and Russia is a part of their special bilateral relationship. Their energy deals of national champions can be linked to other foreign policy agreements. Therefore, the perception of Russia as a potential threat to energy security and individual member state's relations with Kremlin vary substantially, not all member states consider it is urgency to protect energy security with a common external energy policy to Russia.

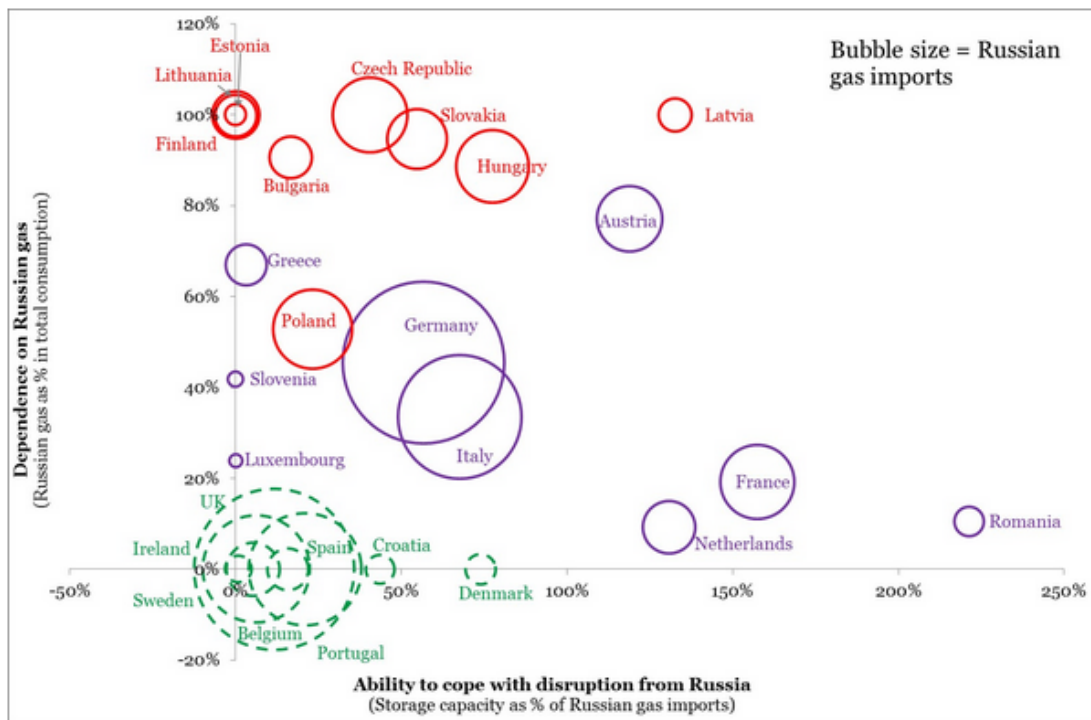


Figure 2: Energy security cacophony in Europe

Source: IEA 2014 Natural Gas Information

Note: Due to lack of information, Malta and Cyprus have been excluded from the figures. These two countries consume little gas and certainly receive no gas from Russia.

In figure 2, the horizontal axis shows the ability of member states to cope with a major disruption of energy supplies from Russia and the vertical axis presents the situation of dependence level of different countries on Russian gas, which reflects the vulnerability of member states in the possible gas disruption. The size of the circles shows the commercial interests of member states in keeping open and secure gas flows from Russia. According to the interests in keeping or diversifying away from Russian gas, EU member states can be divided in to three groups: firstly, countries with green color are neutral member states; these nations do not import gas from Russia directly and therefore have no formal contracts with Gazprom. Secondly, countries with purple color is secure countries; these states import gas from Russia but are protected from disruptions because they have sufficient storage capacity or because they have a very strong, long-lasting, and

established commercial and political relationship with Russia, such as powerful states Germany and Italy. Furthermore, the purple countries have diversified gas sources or they maybe possess indigenous supplies and enough LNG facilities to diversify away from Russia (France, the Netherlands, Italy, and Greece).

“Insecure” member states are with red color; these countries are either already very dependent on Russian gas supplies (more than 80 percent of their total annual consumption) or are expected to become more dependent on Russian gas (Poland).

Finally, different attitudes hold by member states out of historical and geopolitical experience with Russia also contributes to the different gas policies driven by member states. In order to systematically depict member states’ attitude to Russia, an index of friendliness towards Russia has been built⁶¹. The index orders Russian attitudes from 0 to 1, in which 0 means the lowest rate of friendliness and 1 means the highest. There are four-type categorizations, which have been labeled as “the Eastern divorced”, “vigilant critics”, “acquiescent partners” and “loyal wives” respectively. This group of “eastern divorced” is composed of Estonia, Lithuania, Poland, Latvia, Czech Republic, and Slovakia. The past historical experience contributes a lot to their cold attitude towards Russia. Baltic countries are significant to Russia in strategic defense against invasion from western powers. In 1939, Soviet Union and Nazi-Germany signed the Molotov-Ribbentrop pact, which divided northern and eastern Europe in “sphere of influence” between Soviet Union and Germany. Finland, Estonia and Latvia were assigned to the sphere of Soviet Union influence and Lithuania was assigned to the influence of Nazi Germany because it not boards on Russia. In 1940, Soviet Union troops invaded into these three countries and annexed them into Soviet Union territory. Nazi Germany invaded these area for a short time in 1941 and Soviet Union retook them in 1944. These countries were under control of USSR until 1991 when they won independence. The occupation of USSR caused catastrophe to people there according to these countries. Baltic countries have reiterated the invasion history and asked apologies as well as financial compensation from Russia even nowadays. And the question of Russian minorities in the Baltic States, particularly in Estonia and Latvia, is a main source of conflict between these States and Russia. In contrast with Russia, these countries are small in territory and national power and it is very easy to become vassal states. Moreover, they are highly dependent on Russian energy and economic power, which deepen their vulnerability and increase their suspiciousness on Russia. All countries in this group have been influenced by Russia’s unilateral coercive politics. In this area, gas is a useful weapon and a political instrument for Russia. Therefore, Baltic countries have the least friendliness towards Russia because of the history factors. This attitude would affect their gas policy to pursue independency and decrease reliance on Russia. Except energy policies, national security also seems to worry

⁶¹ Stefano Braghiroli and Caterina Carta: The EU's attitude towards Russia: condemned to be divided? An analysis of the Member States and Members of the European Parliament's preferences,

this group of countries, which tends to assume atlanticist positions. All those countries supported the project of NATO' enlargement to Ukraine and Georgia, regardless of Russian opposition.

Poland and Czech Republic can be regarded as having very similar attitudes towards Russia. Poland is located between two great powers--- EU and Russia, thus plays an important role in EU and Russia relationship. Poland is also a significant transit state for Russian gas to Western Europe. In history, Poland has been invaded and occupied three times by Russia and this historical experience would pose shadow on their bilateral relationship unavoidably. Slovakia seems to have a softer approach towards Russia, it did not register any particular conflict with Russia and tend to have a more acquiescent attitude in dealing with the Russian dossier.

The group of the vigilant critics includes three western countries and four CEE countries. Bulgaria, Romania, Hungary and Slovenia defeated Nazi Germany with the help of USSR in World War Two. They built communist governments and kept close diplomatic relationship with Soviet Union during cold war. The intensified control in politics and economy as well as in social life resulted in people's unsatisfactory and dislike against Soviet Union. In 90s, these countries overthrew communist party government controlled by Soviet Union and established democratic government. The shadow of being controlled history would affect their opinions about gas relationship on Russia. But compared with Baltic regions counties, they hold a more positive attitude towards Russia and establish more close economic and energy relationship with Russia. Comparing with CEE and Baltic countries, western European countries are relatively geographically remote with Russia and had less unhappy historical experience with Russia. Therefore they hold friendly attitude with Russia. But there also difference among them. The UK is the more hostile among the biggest member states. Moscow diplomatically defined it as a strategic, though "problematic" partner. It is located far from Russia and its commercial exchanges rate with Moscow is one of the lowest if compared to other EU members. The UK tends to follow the position of United States in all issues which hurts Russian sensitiveness. Moreover, its position of energy supplier puts it in a position of total independence from Russian natural gas resources. In this regard, London marks its "insularity" vis- à-vis the other big MS, in confirming the special character and autonomy of its foreign policy. Portugal is geographically remote and has less historical relations with Russia. Its economic exchange with Russia is not significant and imports gas from Algeria and Nigeria instead of Russia. Because of the lack of relevant stake, Portugal seems indifferent about the EU common external relation with Russia. Denmark, Ireland, the Netherlands, Belgium and Luxembourg are considered as small member states with weaker foreign policy agenda and with a lower stake in relation to Russia. They enjoyed low level of economic ties and import few or even no gas from Russia. Denmark and the Netherlands are gas exporters and totally independent from Russian gas supply. These counties tend to assume a rigid stance in human rights matters and their relation with Russia are sometimes affected by human rights issues. For sxample,Denmark experienced severe bilateral disputes with Russia as it hosted the 2002 Chechen congress and refused to extradite the Chechen leader Akhmed Zakaev.

France and Germany are two great powers in EU and their relations with Russia affect the EU external energy relations significantly. France does not enjoy a comparatively close economic relation with Russia and its energy dependency on Russia is relatively lower than the average EU level. But it holds a pro-Russia position in the south stream pipeline and often boasted its preferential channels of communication with Moscow. Its reciprocal relation with Russia is more political in order to strengthen its position in international issues. Germany has a close economic relation and a highly gas dependence on Russia. Its Ostpolitik tradition has brought it about having a balanced and often acquiescent position towards Russia. Angela Merkel defined the partnership with Russia as one of a special kind, in stating the importance “to talk to rather than against” each other, also in delicate questions, such as the antimissile shield and the enlargement of NATO⁶².

Italy is more active to keep a good relation with Russia and is considered as a strategic partner of Russia. It has a high economic exchange level and energy dependence level on Russia. Indeed, all Italian premiers tended to stress the importance of economic ties with Russia. In several occasions, the former premier, Berlusconi emphasized his friendly personal relationship with Putin and defended his positions vis-à-vis European partners. Italy proved in several occasions to be a “loyal wife” for Russia, even if its loyalty, in certain cases, resulted obscured by its solid atlanticist commitment. But compared with other EU member states, Italy enjoyed a more friendly relation with Russia.

Austria scores low rate of economic exchanges with Russia, but with a high energy dependence on Russia. Austria signed agreements in order to be included in the South Stream. It is not involved in any direct dispute with Russia and tends to maintain overall good relations with Moscow. Austria exerts a low leverage in EU diplomacy but it would like to defend Russia in decision making in EU. **Greece** is depicted as a Russian “Trojan horse” in EU and boasts its historical, cultural and even religious relation with Russia. Its rate of energy dependence is high, even if rates of commercial exchanges are not among the highest if compared to other MS. Greece concluded agreements on energy supply with Russia and proved to be a staunch opponent of the Nabucco Pipeline Project and an active supporter of the Southern Streamline. Thanks to its loyalty, Greece has never faced diplomatic or commercial harassments by Russia, and has been rewarded by being included in the Southern Streamline trajectory. The low leverage of Greece vis-à-vis other EU MS presumably dimensions its ability to threaten the EU's cohesion. Notwithstanding, Greece proved to be a solid ally for Russia, which tried to push forward its cause at any occasion.

From this analysis we can conclude that new member states including CEE countries and Baltic nations hold the least unfriendliness with Russia out of their historical and geopolitical experience. But the old member states are more friendly, especially countries with close economic and energy relations with Russia. This divergence of different countries would definitely affect the external common gas policy to Russia.

⁶² Speech of Angela Merkel at the 43th Munich Conference on Security Policy, published on 2 October 2007, retrieved from <http://www.securityconference.de/konferenzen/rede.php?id=178&sprache=en&> , accessed on the 10 September 2008

Estonia	0	<i>Eastern Divorced</i>
Lithuania	0	
Poland	0.09	
Latvia	0.14	
Czech Republic	0.17	
Slovakia	0.21	
Romania	0.38	<i>Vigilant Critics</i>
Slovenia	0.38	
Sweden	0.40	
Bulgaria	0.43	
Hungary	0.45	
United Kingdom	0.47	
Portugal	0.55	<i>Acquiescent Partners</i>
Denmark	0.62	
France	0.62	

Ireland	0.62	
The Netherlands	0.62	
Belgium	0.69	
Germany	0.69	
Spain	0.69	
Luxembourg	0.69	
Finland	0.74	
Italy	0.76	<i>Loyal Wives</i>
Austria	0.78	
Greece	0.90	

Table 5: An Index of Friendliness towards Russia

International relations are mutually, **Russia’s various foreign policies and strategies** also affect member states’ attitude. Although European Commission prefers to develop a common external energy relations with Russia, the Moscow and powerful member states still keeps close and unique bilateral relations. It is for Russia’s interests that EU member states cannot share a common energy stance therefore Russia exerts “divided and rule policy” to EU member states. Big powers have strong economic power and administrative capability but small countries have limited power. Russia put more emphasis to establish special and sound bilateral relationships with big powers in EU whereas small countries get limited attention in Russian foreign policy. The three Russian Foreign Policy doctrines (2000, 2008 and 2013) adopted since President Putin came to power in Russia all made clear that only a small group of EU member states, notably Germany, France and Italy, are deemed to be a particular “resource for advancing Russia’s national interests in European and world affairs” and that cooperation with these states contributes to the stabilization, growth and modernization of the Russian economy⁶³. In addition, the Foreign Policy Concept of 2008 made special

mention of Spain, Finland and Greece. Among the twenty-eight member states, Germany and Italy are the two that maintain by far the largest trade volumes with Russia⁶⁴. In 2008, Russian exported goods with a total worth of 33 billion US dollars and constituted about 7 percent of total Russian export that year. 12,76 percent of all Russian imports come from Germany while Russian share of total German imports is 4,4 percent although large volume of gas was included. France, the UK and Netherlands are viewed as strategic energy partners because of modern energy technology transfer⁶⁵.

Powerful countries which enjoy leverage in the EU common policy are happy to reciprocate the special treatment they get from Russia in order to ensure the energy supply security of their own countries. This was criticized by other member states as obstacle for a common external energy relation of EU to Russia. Nord Stream project is a test for EU solidarity and also shows Russian more emphasis on powerful western EU countries. The first phase of Nord Stream pipeline was finished and put into operation even it was strongly opposed by CEE countries. In June, 2015, Gazprom stated it would build Nord Stream Two project in order to improve the capacity of the pipeline. This enlargement project is considered as a political move of Russia rather than a purely commercial one because the first Nord Stream pipeline is not utilized fully and the gas demand of Europe from Russia is not expected to grow soon⁶⁶. There is a hot and intense debate about the project. Although related countries and energy giants such as OMV, BASF and E.ON repeated it is a commercial project and would increase energy security as well as benefit energy consumers, the CEE and Baltic countries insist it would cement the dominance of Gazprom of the EU market and expose them to Russian coercion with energy weapon. The discord and disparity of energy policy among member states are beneficial to Russia. Nord Stream project is an example that Russia puts more attention on the energy relations with powerful member states while ignores the dissatisfaction of small and “non-important” countries.

Furthermore, Russia uses different bilateral channels to deploy information asymmetrically to its own advantage. One recent example is the Memorandum of Understanding (MoU) signed between Edison and DEPA on Russian gas exports to Italy and Greece. On 24 February Gazprom signed a MoU with Italy's

⁶³ Ministry of Foreign Affairs of Russia (2000) *The Foreign Policy Concept of the Russian Federation*, approved by the President of the Russian Federation V. Putin on 28 June 2000, available at <http://www.fas.org/nuke/guide/russia/doctrine/econcept.htm>; Ministry of Foreign Affairs of Russia (2008), *The Foreign Policy Concept of the Russian Federation*, 12 July 2008, available at <http://archive.kremlin.ru/eng/text/docs/2008/07/204750.shtml>; Ministry of Foreign Affairs of Russia (2013), *Concept of the Foreign Policy of the Russian Federation*, approved by President of the Russian Federation V. Putin on 12 February 2013, available at http://www.mid.ru/brp_4.nsf/0/76389FEC168189ED44257B2E0039B16D (15 March 2015).

⁶⁴ See Eurostat (2014) EU-Russia Summit EU28 trade in goods deficit with Russia fell slightly to 66 bn euro in the first nine months of 2013, STAT/14/13, 24 January 2014, at http://europa.eu/rapid/press-release_STAT-14-13_en.htm (15 March 2015).

⁶⁵ Anke Schmidt-Felzmann, IS THE EU'S FAILED RELATIONSHIP WITH RUSSIA THE MEMBER STATES' FAULT? *L'Europe en Formation* 2014/4 (n° 374), p. 40-60

⁶⁶ Anouk Honoré, “The Outlook for Natural Gas Demand in Europe” (Oxford Institute for Energy Studies (OIES), 2014).

Edison and Greece's DEPA on the delivery of Russian gas via the Black Sea, to Italy and Greece. The agreement revives the Italy-Turkey-Greece-Interconnector (ITGI), a project that a few years ago lost a bid for gas from Azerbaijan. This project reminds us the South Stream, which designed to bring Russian gas to Austria via Bulgaria, Serbia, Hungary and Slovenia. The south Stream was proposed by Russia as a rival of Nabucco project and won support from countries like Italy and Hungary. While EU announced the project does not comply with the third energy package and Moscow cancelled the project in December 2014. Italy was a main supporter and a stake holder through the energy company ENI.

On 15 December 2015, Italian Prime Minister Matteo Renzi accused Germany of applying double standards when asking Rome to comply with sanctions against Russia, yet at the same time having no problems with striking a potentially lucrative deal with Gazprom⁶⁷. Rome is still angry at EU's decision to stop the South Stream and Italians believe the Nord Stream project "amounts to a powerful Germany putting its economic needs ahead of the bloc's collective diplomacy."⁶⁸ Although ITGI is much smaller and easier to build, the question of whether the pipeline will actually be constructed is largely irrelevant. This 'new' southern gas pipeline should really be seen as a 'compensation' to Italy for Moscow's withdrawal from South Stream, which would then neutralize Italian criticism of Nord Stream II. However, Italian government officials appear not to have been consulted about the MoU. Italian government dismissed the Gazprom-ITGI announcement as a Russian manoeuvre designed to force its assent. "The government was furious at the companies for the way this was handled, at being put in a situation which made it seem as if the government was behind the plans."⁶⁹ By not informing Rome Gazprom inadvertently creates the impression that it only wanted to make it look like Italy gave its assent. This strengthens the view that the MoU is nothing more than disinformation. Given that the intransparency and asymmetrical information, related countries such as Bulgaria and Turkey could compete fiercely to become the gas hub.

Russian disinformation tactic is very effective as the bilateral energy deal between member states and Russia is not always transparent and countries are active to become gas hub which could improve their strategic position and improve gas security. This tactic would create confusion and division among EU member states and hinder the development of a common external gas policy of EU to Russia.

3.2.2 Some examples to show the disparity among member states on "solidarity"

Nation state is still the main actor in international arena and energy is a significant part in national security. Although the establishment of EU starts form energy sector, it is evident that the step for a common energy

⁶⁷ Dr. Sijbren de Jong, Confuse, Divide and Rule - How Russia Drives Europe Apart, *institute for European studies*

⁶⁸ Peter Spiegel and James Politi, "Italy's Renzi Joins Opposition to Nord Stream 2 Pipeline Deal," *Financial Times*, December 15, 2015, <https://next.ft.com/content/cebd679c-a281-11e5-8d70-42b68cfae6e4>.

⁶⁹ Oleg Vukmanovic and Stephen Jewkes, "Pipe Dreams: Gazprom Courts Southern Europe to Exclude Ukraine | Reuters," accessed March 9, 2016, <http://mobile.reuters.com/article/idUSKCN0W8117>

stance to Russia is slow. Most member states in EU resolutely guard their sovereignty over their external energy policies and reserve this power at national level. As Stanley Hoffman argues, self-interested states are quite obstinate in the face of European integration⁷⁰. The cooperation of member states should bring benefits to countries; otherwise it will not be realized. The pressure from interest groups (energy companies or we can say national champions) within member states would shape the external policy of their governments. Geopolitical goals such as containment of Russia from controlling EU gas market are not their aims. Their external energy policies should reflect the aim to guarantee maintenance of least costly and stable gas supply for their domestic consumers or maybe the biggest interests of companies. At the company level, most market actors want to continue or expand business with Russia. The UK energy giant--- BP wants to continue its involvement in Russia even after its subsidiary TNK-BP was forced to sell its 62.9 percent majority stake in the Kovykta gas field in eastern Siberia to Gazprom in summer 2007. Royal Dutch Shell continues the development of Sakhalin-2 oil field regardless of having to agree to pay dividends of some 1 billion a year to the Russian Government after protracted Russian pressure because of delayed production. Even disillusioned actors such as the Ventspils port in Latvia and the Mazeikiu refinery in Lithuania would probably welcome the re-opening of the now dry oil pipelines. The French Total received a 25 percent stake and Norwegian Statoil/Norsk Hydro 24 percent in the company developing the Shtokman gas fields in the Barents Sea. German companies tend to get the best deals for their Russian operations, due to having given Gazprom access to their own downstream operations in the course of several asset swaps. The Italian EN was included in the building of the South Stream pipeline from Russia through the bed of the Black Sea and then through Bulgaria to Slovenia, Austria and Italy. A key reason for the eagerness of these and many other European companies to continue involvement in the Russian energy sector and develop joint projects is that they control dwindling resources mainly in the North Sea. Any stake in Russian energy helps to maintain their sales, in a situation where an increasing share of their sales is from 'foreign' sources⁷¹. EU member states with big powers such as Germany and Italy especially would rather to adopt separate policies according to their own situations to safeguard their energy supply from Russia. This tendency is reflected in the energy chapter of EU treaties, including the final amendments introduced with the Lisbon Treaty. The energy chapter of Lisbon Treaty has additional clauses that provide member states with the ability to keep supply of energy as a state competence. These reservations show that member states are not yet prepared to adopt a common position in their deals with energy providers.

However, countries that gain most from a common external energy policy are very active and enthusiastic as it can bring more benefits for them. Larger countries have rich administrative power and resource as

⁷⁰ See Stanley Hoffman, "Obstinate or Obsolete? *The Fate of the Nation-State and the Case of Western Europe*", in *The European Union: Readings on the Theory and Practice of European Integration*, ed. Brent F. Nelson and Alexander Stubb (USA: Lynne Reiner, 2003)

⁷¹ Pami Aalto, Jean Monnet: European perspectives for managing dependence, R. Ortung, J. Perovic and A. Wenger (eds) *Dealing with an Assertive Russia: Power, Perceptions, and the Role of Energy* (2009).

leverage and keep a special and stable energy relationship with Russia. They do not need EU as back to ensure gas supply. But relatively small countries need EU institutions and support from other member states on energy relation with Russia. Countries like Poland, Estonia and Latvia persist in uploading their policy preference to EU and actively lobbying other member states and EU institutions to form a common external gas policy to Russia. Besides energy, the issue of uploading their interests or bilateral problems with Russia to the EU level is a protracted one for the group of central and eastern member states. EU represents all interests of member and its policy tends to reflect the interests of individual states that have successfully uploaded to the EU level. That can partially explain why solidarity has been reiterated again and again in official papers. For example, Poland has always spared no efforts to call on solidarity and a common stance to deal with relation to Russia. It proposed to build an “energy NATO” in 2006 which consisted of “European Energy Security Treaty”. The aim is to develop an absolutely new kind of political instrument linking states in the area by mutual energy security guarantees. The purpose of ‘NATO energy’ proposal would be a commitment “to cooperate in bringing assistance to a Party affected by restrictions in energy supplies, and to build and develop the necessary organizational and technical infrastructure designed to permit such cooperation”⁷². More specifically, the Energy Treaty would have a clause of mutual assistance among the Treaty signatories, as in the case of NATO, whereby “a threat to the energy security of one... will be a threat to the energy security of all...” In order to secure energy supply, the proposal also established the objective of diversification of energy sources and transit routes. Between late 2006 and autumn 2007, as a response to Russia’s blockade of Polish meat exports on alleged hygiene grounds, Poland was successfully blocking any negotiation attempts to sign a new EU-Russia treaty, insisting that the ban on its meat be first lifted. Poland during this time was also calling for a liberalization of Russia’s energy sector. Donald Tusk’s new government replaced the very anti-Russian government of Prime Minister Kaczynski in late 2007, promised to continue seeking alternatives to Russian supplies, but left the door open for modifying its predecessor’s anti-Russian policy. Poland is strongly against Nord Stream pipeline which bypasses Poland and connects Western Europe and Russia directly. As Nord Stream decrease the importance of Poland as transit country and leave it under Russian possible gas coercion and it also replace the Yamal 2 project. Polish Defense Minister Radek Sikorski described the Nord Stream project as Molotov-Ribbentrop pact of 1939 and criticized that Germany betrayed the energy solidarity of EU. In 2014, Polish premier Donald Tusk proposed the roadmap towards a energy union of Europe. He made it clear by stating that “Europe should confront Russia’s monopolistic position with a single European body charged with buying its gas”, “Europe should make full use of the [domestic] fossil fuels available, including coal and shale gas.”⁷³ The energy union strategy of EU was clearly influenced by the Poland, though with some of the sharp edges removed.

⁷² Natorski, M. & Herranz Surrallés, A. (2008). ‘Securitizing Moves To Nowhere? The Framing of the European Union Energy Policy’, *Journal of Contemporary European Research*, Vol. 4, No. 2, pp. 71-89.

⁷³ <http://www.energypost.eu/energy-union-now-never-european-energy-policy/>

The strategy did not mention collective purchasing of gas. Comparing with Poland, **Germany** intends to deepen energy cooperation with Russia with the most evident example---the construction of Nord Stream. It is in German's opinion that the main source of threat was the coupling of rising global demand of energy with the fact that the most energy resources are located in regions of the world characterized by political instability⁷⁴. German foreign minister announced that EU needs to find energy security means not only for EU member states but also for producing and transit countries, especially on the European continent and its neighborhood. "Regional cooperation", according to the German foreign minister, would include the North Sea, Northern Africa, Russia and the Gulf States⁷⁵. Germany established a special energy relationship with Russia. The construction of Nord Stream was uploaded as common interest projects of EU even if many member states' negative attitudes. Although the debate about the Nord Stream Two project is hot among member states and many CEE countries strongly opposed this project, it is predicted that the project will be constructed yet.

Member state also show totally different attitudes about the EU backed Nabucco project and South Stream project proposed by Russia. It is clear that although EU's policy should represents the interests and positions of all member states, a common external policy cannot be formulated without the support of big powers such as Germany, France and Italy. And the close and special bilateral relationships between these countries and Russia are often criticized by other member states as destruction of solidarity principle.

3.3 alternatives to ensure gas security

Since the EU member states cannot share a common perception on the reliability of Russia as a gas supplier and form a common external strategy to develop gas relation with Russia, the measures about how to ensure gas supply security under this situation should be talked about. The powerful countries such as Germany, Italy and France could better ensure their gas supply security because of their special bilateral relationship with Russia; and western member states have other gas sources besides Russia. Yet CEE countries and Baltic countries are likely to be the most affected countries and the most unsecure regions. Efforts should be taken to continue to diversify gas resource on the external side. The internal efforts seem to be the core task for gas security of supply in the coming years. Infrastructure building could diversify gas resource to the CEE and Baltic region, integration of electricity and gas system and improve energy efficiency would help to decrease gas demand. Regional cooperation seems to be a better way without the formation of common stance of twenty eight EU member states.

Possible gas source alternatives

⁷⁴ The danger of these global dynamics was plainly formulated in expressions such as "global hunger for resources" and "world order politics threaten to collide" (Steinmeier 2006b).

⁷⁵ Natorski, M. & Herranz Surrallés, A. (2008). 'Securitizing Moves To Nowhere? The Framing of the European Union Energy Policy', *Journal of Contemporary European Research*, Vol. 4, No. 2, pp. 71-89.

In the future, the gas production inside EU will continue to decrease and the export capability of Gazprom is also in question because there is not enough investment. It is important for EU to diversify gas suppliers thus better guarantee gas security. The most promising gas sources are Turkmenistan and Iran.

Azerbaijan and Turkmenistan are two promising gas suppliers in Caspian area. The under constructed TAP could transmit Azeri gas to EU but only in a small quantity. While Turkmenistan is very abundant in gas reserves and has a bigger capability to export. In 2014, the total production of natural gas is 62.3 bcm and the total exports amounted to 40.1 bcm⁷⁶. It has the sixth-largest natural gas reserves in the world. But the main reason that it can export gas to EU is there is no direct pipelines connection to Europe. It has no choice but to export gas to Russia at a much lower price. Prior to the 2014 crisis, Gazprom was paying \$36 per McM when the average gas price to Europe was \$136. In September 2006, Gazprom agreed to pay \$100 per McM with the average price to Europe was \$162. With the increase of average gas price, Gazprom offered to pay \$150 per McM in 2008 while China agreed to pay \$195 per McM after the completion of pipeline connecting Turkmenistan and China⁷⁷. Turkmenistan has accused the monopoly of Gazprom but Gazprom refused to pay a higher price and stated Russian gas pipelines are the only way to export Turkmenistan gas. Besides, the country also lacks required infrastructure and prevents it from exporting LNG.

The gas export to Russia and China raised doubts about whether there is additional gas to export to Europe. In 2008, Gaffney, Cline & Associate ---a British company hired by Turkmenistan government claimed a discovery that South Yolotan-Osman field in south eastern Turkmenistan is the fourth or fifth largest gas field in the world. This fact boosts the confidence of the government and may make it possible to export gas to Europe. The completion of TAP connecting Azerbaijan and Europe might help to import gas from Turkmenistan. But there are jurisdiction disputes about the status of Caspian Sea, which could be an obstacle in this sphere. In a conclusion, the lack of pipelines and LNG facility and disputes over Caspian Sea as well as the domestic policy discouraging foreign investment all together make it is difficult to import gas from Turkmenistan in a short term.

In the Middle East area, Iran seems a credible source for gas supply in a long term for Europe. Iran possesses 15.8 percent of world's total gas reserves and ranks the second largest gas reserves after Russia⁷⁸. With the lift of most of its sanctions imposed by the western world, it becomes a very promising gas supplier. "The Iran deal opens the door to a closer EU-Iran energy cooperation," said Miguel Arias Cañete, the commissioner for climate action and energy for the 28-member bloc. The EU's first technical assessment mission took place in January 2016 with the aim to restore energy cooperation between EU and Iran gradually. The lifting of sanction could make Iran accessible to advanced technology and abundant

⁷⁶ BP Statistical Review of World Energy, June 2014

⁷⁷ Mert Bilgin, Geopolitics of European Natural gas demand: Supplies from Russia, Caspian and the Middle East, *Energy Policy* 37 (2009) 4482-4492

⁷⁸ See Oxford Institute for Energy Studies, What the Ukraine crisis means for gas markets, March 2014; EIA; OPEC

investment to help develop its domestic gas reserves, because there is huge domestic demand of gas as with the extremely low price thus production should be greatly increased to realize exports. The lack of infrastructure is the main obstacle for Iran to export its energy. There are no pipelines connecting Iran to Europe currently. Iran's gas grid is linked with Turkey through the Tabriz-Ankara pipeline; it can export to Europe if there is a connection between Turkey and Europe. EU also showed a particular interest to include Iran to the Southern Gas Corridor. If the agreement on Persian pipeline between Turkey and Iran reached, the EU would be able to import 25-30 bcm yearly⁷⁹. Iran also is planning to build a pipeline with 10bcm/year to connect with Oman, which makes it possible to export gas via the Omani LNG hub. Iran shows great interest in developing LNG export capacities and it is estimated to raise its LNG production from 131bcm in 2009 to 226bcm by 2030⁸⁰. Therefore, Iran is a promising alternative energy suppliers for Europe with the improvement of gas export infrastructure.

From the European commission level, **improvement of infrastructure** would be pursued continually. EU Commission might put diversifying gas supplies as its task, but it is unlikely to produce fruitful results. The gas crisis of 2009 revealed a serious problem--- the lack of interconnection and reverse flow capacity of pipelines from west to east. Even though there is gas redundancy in western EU, but gas cannot be transported to the affected countries under serious gas shortage. In the following years, a great effort has been taken by EU and member states to instruct the missing pipelines and upgrade the existing compressor stations allowing reverse flow. For example, the EU allocated about € 4 billion on one time for improving energy infrastructures. About one third of this amount of money was put in gas infrastructures, such as connections of borders and reverse flow devices. The "Connecting Europe Facility" (CEF) will support € 5.85 billion to build energy projects from 2014 to 2020. Besides construction of pipelines, a number of new LNG import facilities have been in plans. LNG facilities allow EU member states to import gas from distant suppliers and eliminate the constraint of geographical proximity. LNG could diversify gas suppliers and increase EU's gas security and strengthen its position to negotiate with Russia. In recent years, LNG gas imports occupied about 10 percent of EU total gas imports and mostly come from Qatar, Algeria and Nigeria. LNG facilities mainly located to Western Europe such as the UK and Portugal as well as Spain. Most CEE countries and Baltic countries are still dependent on one energy source and therefore it is important to make sure these countries have access to a gas hub including LNG facility. For example, Lithuania finished the first LNG facility of Baltic region in 2014 and greatly increased the gas security, which also enable Lithuanian to renegotiate the gas price with Gazprom. Poland is building its first LNG facility now. The European Network of Transmission System Operators (ENTSO) Ten Year Network Development Plan identifies 39 LNG projects altogether, and among them 13 considered as Projects of Common Interest. The

⁷⁹ See Reuters. Iran reports Turkey gas deal, Ankara stands back, 23 July 2010

⁸⁰ See ATKearney. The Future of the European gas supply. December 2011

total amount of import capacity of these LNG is 147 bcm per year⁸¹. Furthermore, gas storage provides as a buffer for gas disruption and might be prioritized in a gas crisis. EU leaves the obligation of gas storage to the member states themselves. A possible suggestion is to establish an outline on EU level about the gas storage regulations similar to oil storage. An information-shared platform to increase transparency of commercial gas storage is necessary.

Integration of energy system

The construction of energy infrastructure is expansive and sometimes difficult to finance. For example, to tackle with a possible gas disruption from Ukraine, it is estimated that about €6.9 billion of investment will be required in a mix of pipelines, new LNG terminals and gas storage facilities. Under a high gas demand scenario such as in a cold spell winter, this investment increases to €14.1 billion⁸². Gas infrastructures are planned and constructed separately electricity, which means the chance to make use of electricity infrastructure to increase gas security, is missed. The cooperation between ENSTO-E and ENSTO-G is limited although each of them achieved progress in integrating internal market. To integrate the gas and electricity system is more cost-effective and maybe a better solution to fix the financing problem. In both current and high demand situation, investment required is possibly to cut in half (to €3.7 billion in the Current Trends scenario and to €7.7 billion in the High Demand scenario). This cost reduction resulted from an optimal leveraging of the synergies between gas and power systems, by displacing the use of gas-based generation or reduce the percentage of gas utilization in areas with less congestion risks, or by re-importing the electricity using existing electricity transmissions. Besides, leveraging the power system from other regions is also beneficial to decrease gas peak demand in the regions having issues. On the demand side, the application of already existing oil back-up capacities in gas-heavy industries would also contribute significantly to this reduction. Both these aspects benefit to cut the overall gas demand during crisis situations, which avert the construction of un necessary gas infrastructure thus is more cost efficient.

Treating energy efficiency as an effective way to reduce gas demand

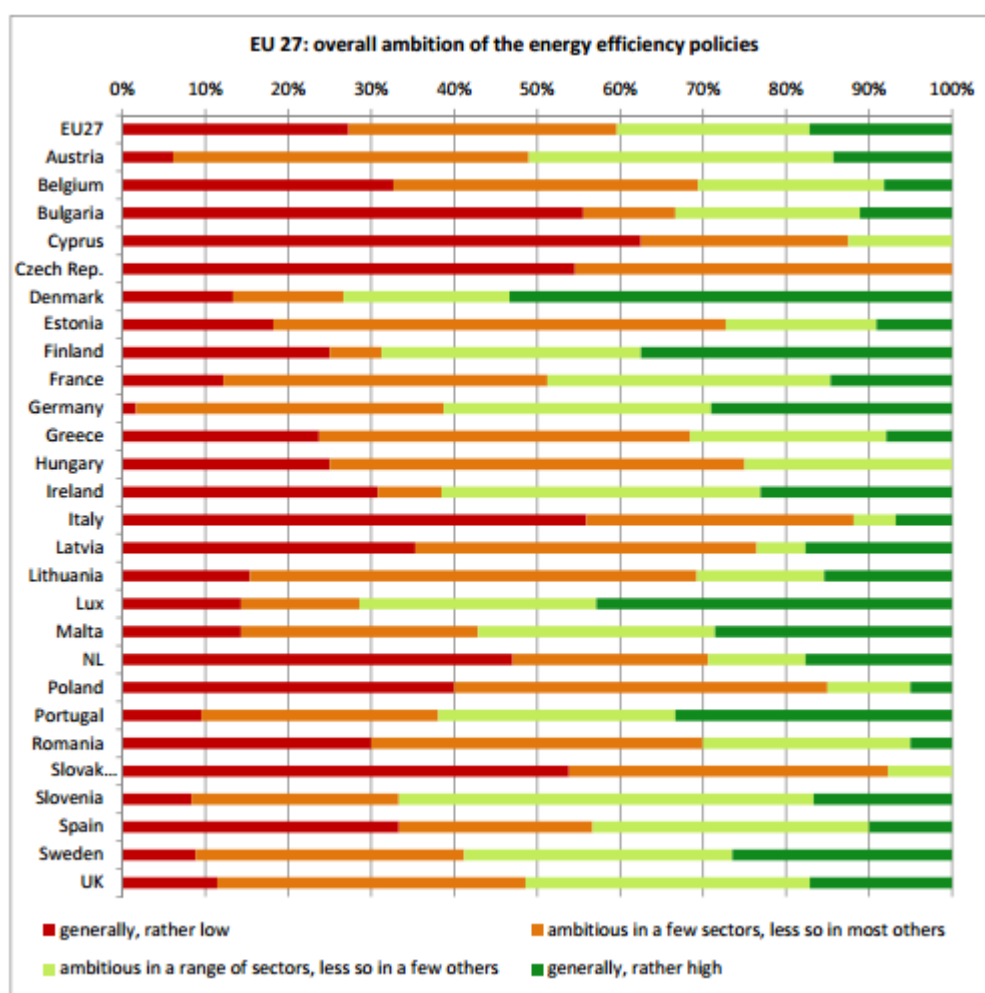
To reduce gas demand would mitigate the influence of gas disruption for gas imported countries. There are different ways to decrease gas demand, such as increase energy efficiency, develop renewable energy to replace gas and so on. In 2014, the Commission concluded in its Energy Efficiency Communication that the EU could achieve energy savings of about 20 percent until 2020. On this basis, European leaders agreed to improve energy efficiency by 27% at least until 2030. EU Commission President Jean-Claude Juncker and

~~Commissioner for Energy Miguel Arias Cañete~~ have stated publicly that “having in mind an EU level of

⁸¹ JONATHAN GAVENTA, MANON DUFOUR, LUCA BERGAMASCHI, MORE SECURITY, LOWER COST A SMARTER APPROACH TO GAS INFRASTRUCTURE IN EUROPE, Energy Union Insight Series#1, March 2016, https://www.e3g.org/docs/E3G_More_security_lower_cost_-_Gas_infrastructure_in_Europe.pdf

⁸² JONATHAN GAVENTA, MANON DUFOUR, LUCA BERGAMASCHI, MORE SECURITY, LOWER COST A SMARTER APPROACH TO GAS INFRASTRUCTURE IN EUROPE, Energy Union Insight Series#1, March 2016, https://www.e3g.org/docs/E3G_More_security_lower_cost_-_Gas_infrastructure_in_Europe.pdf

30%” of energy efficiency by 2030. If the target of 30% improvement of energy efficiency can be achieved, gas imports will decrease by 96bcm and overall gas use falls by 27% compared with 2014 scenarios⁸³. Although improve energy efficiency could bring benefits, countries are not doing enough to achieve the goals set by EU. The latest Commission Impact Assessment shows that the 20 percent goal until 2020 will be missed by 3 percent if no additional measures are taken⁸⁴. Member states have different perceptions about the function of energy efficiency; some countries recognize the positive economic, environmental and political influence bring about by improve energy efficiency and drive related regulations and funding to support it, while other countries are suspicious about it and only do the minimum according to the European directives. The overall ambition of energy efficiency differs a lot among member states, as we can see from the figure. CEE countries hold overall rather low ambition, such as Czech Republic, Poland, Slovakia and Romania. Therefore, EU legislation plays a crucial role especially for countries in which energy efficiency is not priority and does not attract enough political attention.



⁸³ JONATHAN GAVENTA, MANON DUFOUR, LUCA BERGAMASCHI, MORE SECURITY, LOWER COST A SMARTER APPROACH TO GAS INFRASTRUCTURE IN EUROPE, Energy Union Insight Series#1, March 2016, https://www.e3g.org/docs/E3G_More_security_lower_cost_-_Gas_infrastructure_in_Europe.pdf

⁸⁴ EC Impact Assessment in support of the White Paper on energy and climate goals for 2030

Table 6: ambitions of energy efficiency among member states

There are several reasons about countries' indifference: lack of advanced technology or financing routes to improve current projects, lack of related legal and regulations to back up the implementation and the resistance from current energy suppliers operating entrance barriers. Even if there is enough capital, experts underlined that other obstacles are unresolved--- legal, institutional and information sharing etc. Energy advice or energy audit program is key to information barrier. This program plays a vital role in transforming markets and in combating information barriers, especially when implemented in a package with other policy incentives. There are a number of countries which have a long tradition of public-funded, product-independent energy advice through dedicated advice centres, serving households and in some cases SMEs. Among specific energy efficiency policy instruments, it was seen as the most effective in the survey (74 % of the experts agree that it is very or partly effective)⁸⁵. Furthermore, during the implementation of EU directive, there also exist some problems. In some countries, numbers of regional and local energy agencies are insufficient and there is a staff shortage concerning with energy efficiency. The insufficient of related agencies and working staff would definitely affect the implementation of EU directives and enforcement of legislation. There is a huge space about the energy efficiency left to EU member states and the energy security could be better secure when the 30 percent goal is achieved.

Regional cooperation

Regional approaches to EU energy policies is termed as “Schengenisation” of energy, making reference to the Schengen Convention eliminating contra- European border controls. The purpose of regional cooperation is to achieve EU energy policy objectives with considering the specific preference and situations of member states. Achieving regional cooperation and convergence is crucial to build “a fully integrated single energy market”⁸⁶ Nationally-decided gas supply security measures and infrastructure projects often have influence beyond their borders. For example, if one country in Baltic region builds an LNG facility, the other two countries may find it more difficult to finance LNG facility in their countries and partly because the overall gas demand in this region is limited. And the Nord Stream Two project makes south eastern European countries more anxious and suspicious about the position of Germany and the security of themselves because Russia could cut gas transit through Ukraine without affecting western member states. When there is a difficulty to form a common external gas strategy of all EU 28 countries, it seems to be a better solution for regional cooperation between countries with geographical proximity and similar priority. Regional

⁸⁵ Christiane Egger, Progress in energy efficiency policies in the EU Member States - the experts perspective: Findings from the Energy Efficiency Watch Project 2012, http://www.energy-efficiency-watch.org/fileadmin/eew_documents/EEW2/EEW_Survey_Report.pdf

⁸⁶ Christian Egenhofer, Anna Dimitrova & Julian Popov, Regional Energy Policy Cooperation in South East Europe: Towards an Energy Union, Centre for European Policy Studies, <https://www.ceps.eu/sites/default/files/Final%20Policy%20Proposal%20Regional%20Energy%20Policy%20Cooperation.pdf>

cooperation seems to be a complementary and promising alternative when there are some difficulties for the cooperation of the EU 28 countries.

Member states have different priorities in dealing the energy challenges. Energy security remains a central issue for CEE countries while western and northern EU member countries care more about energy efficiency and environmental protection. There are some important regional cooperation forms, such as the Visegrad countries' V4 initiative (Poland, the Czech Republic, Slovakia and Hungary), the Pentalateral Energy Forum (PF, which involves France, Germany, the Benelux countries, Switzerland and Austria) and the related North Seas Countries Offshore Grid Initiative (NSCOGI, for ten nations bordering or close to the North Sea), as well as the Mediterranean Energy Forum. There are different models of cooperation: simple information sharing; joint information and knowledge creation in selected areas; common policy in selected areas and joint instruments. These different models can be applied alone or in parallel.

The regional cooperation forum mostly emerged in top-down process, such as the Energy Community. Compared with this process, the Pentalateral Forum was a bottom –up process. It was initiated by TSOs and established by national regulators and national governments. The forum made specific markets rules and institutions to facilitate market integration of this region. This bottom-up model later became “target model” for EU other regions.

Regional cooperation could offer various benefits: better connection could improve energy security and offer flexibility to a wider range of energy sources; it is also beneficial for the integration of renewable energy sources. According to a report by E3G and Imperial College, “moving to a regional, strategic approach to grid planning with full resource sharing could save 25—75 billion dollars in the period to 2040, compared to the current incremental member-state approach”. Especially in the south east Europe, regional cooperation forums are crucial for the realization of energy efficiency target and completion of their national targets as well.

Conclusion

The energy cooperation is the most important part in EU-Russia relationships. Owing to geographical proximity and energy distribution reality, EU is heavily dependent on imports from Russia. As a energy export-oriented economy, Russia also relies on the EU market which contribute to its revenue greatly. Compared with oil and solid fuels, gas is a more specific energy form because most of it is transported through pipelines and it is difficult to change suppliers because pipeline construction costs long time and a great deal of money. Gas cooperation between EU and Russia began since Soviet Union times, but in recent years the gas disputes between Russia and Belarus in 2006 and with Ukraine in 2009 affected the stable gas supply to EU. The fear that Russia's “gas containment policy” prevailed and how to ensure gas supply security became a hot topic. There are external and internal efforts that EU has taken to ensure its gas supply security. On the external side, EU has been working to build pipelines to bypass problematic transit

countries such as Belarus and Ukraine and diversify gas supplies by connecting Mediterranean areas with Europe. Nord Stream connects Russia and Europe directly under the Baltic Sea and won support from many powerful countries in EU, such as Germany and France. However, it also sparked hot debates among EU member states and some CEE countries like Poland thought this pipeline is German's betrayal the solidarity principle of EU energy policy. While in German's opinion, this project is a pure commercial project and is for the interest of whole EU. As some countries believed Russia was an unreliable gas supplier and EU should decrease its dependence on Russia, EU proposed to build Nabucco project in order to open up South Gas Corridor, which means to reach new gas source in Mediterranean area and maybe Middle East area in the future. but the main reason for the abortion of Nabucco is that EU could not find enough gas to fill in the pipeline. And some member states' support for the South Stream---the rival of Nabucco also led to the failure of it. South Stream was initiated by Russia and won support of many member states including Italy, Greece and Bulgaria etc. Gazprom acts as the main owner of this pipeline, which is not compatible with the unbundling clause regulated in the Third Energy Package and led to its abortion at last. Azerbaijan is the only accessible gas supplier in the southern gas corridor come so far and decided to choose the less expansive TAP pipeline. Although TAP is an important move to open up southern gas corridor, the total amount of gas from Azerbaijan is insignificant and cannot change the current dependence of EU on Russia. To ensure stable gas supply at a reasonable price, EU also establishes regimes to facilitate communication and improve predictability of Russia. Energy Community Treaty is one example, which provides regulations for energy related investment, trade and transit. But the inside clause required contracting parties to open up its infrastructure to other suppliers without discrimination, which is not compatible with Gazprom's interest because it damages its monopoly status on European market. Without the main energy supplier's---Russia's ratification, the effectiveness of ECT decreased. The EU-Russia Energy Dialogue is another important platform to negotiate energy issues. But there are ideational, institutional and leadership conflicts between the two parties, therefore the fruit of this dialogue is few. An ultimate conflict between the EU and Russia is the clash of values---EU's "liberal" consumer-market versus Russia's "monopoly" producer-market. EU also develops various forums to strengthen gas cooperation with other suppliers. On the internal side, EU believes the integration of internal energy market is beneficial to ensure gas security and the interests of consumers. The completion of internal energy market contains hardware and software. Hardware refers to the improvement of gas infrastructure, ranging from the construction of missing gas pipelines from west to east to the establishment of LNG facilities as well as the upgrade of storage capacity. Software means the related regulation and legal framework. EU needs to formulate common legal systems in order to coordinate the actions of member states and better realize gas security.

It is clear that bilateral gas relations between member states with Russia prevail although solidarity has been reiterated and is omnipresent in various official papers. Nation states are reluctant to give up their sovereignty about energy related policy to EU level out of many reasons. The special bilateral relationship

between powerful countries with Russia is considered as undermine of the common external gas policy from EU to Russia. The national preferences of countries are shaped by their different energy mix and the status of gas in their energy consumption. Compared with CEE and Baltic regions, Western Europe are in an advantageous position in negotiation with Russia because they have diversified import sources and import a huge bulk. And CEE and Baltic countries hold a more negative attitude against Russia out to historical and geopolitical reasons. In a conclusion, the specific energy situations and different perception about Russia lead to the different policies of member states in dealing with gas strategy with Russia. Some countries call on EU to decrease dependence on gas imports from Russia as well as speak in one voice to Russia in order to ensure gas security, while others especially powerful member states are beneficial from the gas cooperation with Russia through bilateral relationship and prefer to increase gas imports from Russia. This disparity of national position makes it difficult to form a common external gas policy to Russia.

CEE countries and Baltic countries such as Poland and Hungary are active to call on a common external gas policy because they can better negotiate with Russia thus ensure gas security with the support of western powerful countries. There are some alternatives for EU and these countries to ensure energy security without a common gas external policy. Improvement of gas related infrastructure should be continued because they will help diversify gas sources for these countries. Besides, integration of gas and electricity systems could improve utilization of infrastructure and is cost-effective. Other than hardware, to raise energy efficiency could reduce energy consumption and be beneficial to environment as well. CEE countries are not very ambitious and active in the efficiency improvement owing to lack of money and technology. The public and government also do not give priority on the energy efficiency improvement as well. In the future, EU should act as a powerful driving force in these regions to attract attention or push countries to improve energy efficiency. Without consent of 28 countries, regional cooperation is a better way for regional energy market integration and gas supply security.

Through the above analysis, it is clear that countries in EU can be divided into two groups with one group composed of CEE countries mainly. This group country emphasize the possibility of Russian deliberate and politically motive gas disruption because they have relative weak power thus their fates are at the mercy of big neighboring country. The other group includes mainly western and powerful member states which stress the benefits to continue close cooperation with Russia. National interests are the primary reason for the different external policy of member states to Russia. The concept of solidarity has developed from a comparatively vague and broad understanding of act “in the spirit of solidarity” to a much more concrete understanding as financial and technical assistance to each other in gas crisis. This evolution of solidarity concept clearly shows that member states actions are decided by their own costs and benefits instead of concern for the interests of other member states or the whole good of the EU. Therefore, there is a huge gap between the “solidarity” rhetoric and the reality of member states’ conflicting approaches in securing the national gas security. It is also argued that the reiteration of “solidarity” in official papers reflects the will of

European Commission to acquire greater influence in the sphere of external energy policy. Through presenting the importance of gas supply security to EU and analyzing the various national preference of member states, the aim of this paper is to clarify that a common external gas strategy and a common stance of EU 28 member states is unlikely to come into effective.

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