EUROPEAN UNION'S NATURAL GAS TRADE WITH RUSSIA: COMPETING PRIORITIES OF SUPPLY SECURITY AND SUPPLY DIVERSIFICATION

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ABSTRACT

EUROPEAN UNION'S NATURAL GAS TRADE WITH RUSSIA: COMPETING PRIORITIES OF SUPPLY SECURITY AND SUPPLY DIVERSIFICATION

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This thesis examines the bilateral relations of European Union and Russia in terms of energy trade. The main question of this thesis is whether European Union could realize its energy strategies of supply security and supply diversification in its natural gas trade with Russia. The main argument of this thesis is; Russia has been undermining the EU's energy strategy, by using the contradictions between the EU's energy strategy priorities of supply security and supply diversification. Emphasizing the significance of supply security for the European Union, Russia undermines the EU-sponsored projects of supply diversification. The fact that, Russia will be the principal supplier of natural gas to Europe, is likely remain as the key actor in energy market of EU. However, Russia is also dependent on EU for its hydrocarbon exports. Consequently Russia's role as EU's primary supplier in natural gas , and EU's role as Russia's main hydrocarbon importer, are likely to be the main factor that will continue to shape the thereon energy security in the foreseeable future.

Keywords: Natural Gas, The Southern Gas Corridor, The South Stream, Russia, The European Union.

ÖZ

AB-RUSYA DOĞALGAZ TİCARİ İLİŞKİLERİNDE ARZ GÜVENLİĞİ VE ÇEŞİTLENDİRME ÖNCELİKLERİ

AYDIN, Ayşe Esra

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Temmuz 2012, 121 sayfa

Bu tez Rusya ve Avrupa Birliği arasındaki ikili enerji ticareti ilişkisini incelemektedir. Bu tezin temel sorusu; Avrupa Birliği'nin Rusya ile doğal gaz ticaretinde arz güvenliği ve arz çeşitlendirilmesi amaçlarını gerçekleştirip gerçekleştiremeyeceğidir. Bu tezin temel argümanı ise şöyledir; Rusya AB'nin enerji stratejisinin temel öncelikleri olan arz güvenliği ve arz çeşitliliği arasındaki çelişkiyi kullanarak AB'nin enerji stratejisini zayıflatmaktadır. Avrupa Birliği için arz güvenliğinin önemini vurgulayan Rusya, bununla birlikte arz çeşitlendirilmesi için geliştirilen AB destekli enerji projelerini başarısızlığa itmektedir. Rusya Avrupa'nın ana doğal gaz tedarikçisi olduğundan, Avrupa enerji marketindeki konumunu her zaman korumaya devam edeceği anlaşılmaktadır. Rusya da hidrokarbon ihracatı için Avrupa'ya olan bağımlılığı da söz konusudur. Rusya'nın Avrupa'nın birinci hidrokarbon tedarikçisi olması ve Avrupa'nın da görünür gelecekte Rusya'nın başlıca ithalatçılarından olması Avrupa enerji güvenliğini belirlemeye devam etmektedir.

Anahtar Kelimeler: Doğal Gaz, Güney Gaz Koridoru, Güney Akım, Rusya, Avrupa Birliği.

To My Dear Parents Esin & Barbaros and Beloved Brother Tolga,
Whom I Owe Much Because of Their Never-Ending Support in My Life...

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LIST OF ABBREVIATIONS

PGNiG	Polskie Górnictwo Naftowe i Gazownictwo
LNG	Liquefied Natural Gas
RWE	Rheinisch-Westfälisches Elektrizitätswerk
SPE	Belgian Energy Company
NEL	The North European Gas Pipeline
OMV	Austrian Energy Company
CEGH	Central European Gas Hub
KVGN	Royal Dutch Gas Association
SPE	Special Purpose Entity
EEZ	Exclusive Economic Zone
DESFA	Greek Energy Company
GATT	General Agreement on Tariffs and Trade
ECT	Energy Charter Treaty
NICO	Naftiran Intertrade Company
TPAO	Turkish Petroleum Corporation
EGL	Swedish Energy Company
BOTAŞ	Turkish Petroleum Pipeline Corporation
SOCAR	State Oil Company of Azerbaijan Republic
BTS	Baku–Tbilisi–Ceyhan Pipeline
IAGS	Institute for the Analysis of Global Security

CHAPTER 1

INTRODUCTION

1.1. Scope of the Thesis:

This thesis endeavors to illustrate the contradictions between the EU's energy strategy priorities of supply security and supply diversification in its natural gas trade relations with Russia. To illustrate this, the EU supported projects of Southern Gas Corridor and Russian supported project South Stream have been examined in this thesis. This thesis also examines the importance of the natural gas in European energy market and its relation with Russia due to its newly emerged energy security strategy.

In every second of our lives we need energy in any form. In today's world the absence of energy is regarded as an apocalypse because, the lack of energy has serious consequences. Without energy the people would have a harder time carry out their jobs and an even harder time getting anywhere, so that the factories, shops and other workplaces were unable to operate, the agriculture will decelerate and so on. That is why energy has a big importance in maintaining our life. To fully understand the importance of energy security, it is important to know the effects of the energy in economic and political terms to a country.

Today, energy is considered one of the most vital subjects in political and economic arena, that the economic growth of the countries was measured by their energy consumption. The place of energy in the economy is also very important. Energy is the backbone of the industry starting from the production process to the transportation of the goods. It carries great importance in a countries economic competitiveness and employment rate. That is why the fastest growing economies in the world have the highest energy consumption rates. However, as the World's energy resources are in decline these growing economies of the world desperately needs new energy resources to support their industrial growth, while the current resources are

started to deplete one by one. The balance in the world political arena is changing accordingly with the change of power in the energy producing countries.

According to the 2010 statistics of BP, the world energy consumption grew by 5,6% which is recorded as the strongest growth rate since 1984[1]. While the world economy grows, the energy consumption grows too. Being one of the largest developing country and the fastest growing economy in the world, China has a big influence in the world energy market. China's energy consumption rates of 2010 according to the BP statistics; its energy consumption grew by 11.2% compared to the previous year[2]. In addition to that, China overrun US and seizes the title of the world's largest energy consumer with its 20, 3% energy consumption in this year[3]. So that it would not be wrong to say that the countries which have easy and cheap access to the energy, increases their competitiveness in the world economics. That is why, while the energy poverty rapidly increases, energy became a tool to rule.

In this context we can assume that, energy is important not only in the economic field but also in the security field. That is why energy today considered as one of the most sensitive issues in the world security. The countries which hold the majority of the world energy resources become important actors in world politics. Their voice starts to sound louder and they can easily become one of the permanent players in the world politics. That is why the energy rich countries use their energy card as a strategic tool for politics and foreign policy. This energy card is used on the trader side as; selling its energy resources for its own profits, and in response to this, the consumers try to secure their energy supply with supply security and diversification. Also trading energy became an important issue in foreign economic policy because it makes both trader and seller countries depended to each other and creates a stage of

[1] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.2
[2] *Ibid*.
[3] *Ibid.*

interdependency[4]. Therefore energy prizes directly affect countries' economic stability and security. That is why sustainable energy policies and ensuring the supply security and diversification of supply with energy security policies is crucial to every country.

The emergence of energy security goes back to the subversive oil crises in 1970s. An intense and insecure environment occurred in all over the world that leads many countries to seek new resources of energy. Many countries started to have an interest finding new energy resources not only in their territories but also in the territories of the other countries to decrease their energy vulnerability. Thus, this environment called forth the creation of 'energy security' concept.

According to some academicians, the formation of this concept doesn't fully formed yet. They believe that the energy security concept is a multi-dimensional concept since producers, consumers, and national and international companies were all bind to each other[5]. On the other hand The International Energy Agency defined the energy security concept as "*Promoting diversity, efficiency and flexibility within all energy sectors*"[6]. However, in this thesis I only look at the energy security of European Union in two concepts; supply security and supply diversification. I will be examining the supply security and the supply diversification in accordance with the definitions below.

The supply security provides protection to countries for high and increasing exorbitant rates in the global energy prices, and to possible distress and disruption or cases of failure in the energy resources. With the supply security a country can meet its energy demand without harshly affecting its economy or its citizens. This means an

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[4]Westphal, Kirsten. "*Energy in International Relations - Dominance of Politics over Economics?*" Paper presented at the annual meeting of the International Studies Association, Le Centre Sheraton Hotel, Montreal, Quebec, Canada, Mar 17, 2004, p.1,2

[5]Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011 ,p.3

[6] International Energy Agency, '*About IEA*',< http://www.iea.org/about/index.asp > , (accessed on 30 March 2012)

uninterrupted availability of resources which depends to the geological, economic and political dynamics[7]. Whereas for the supply diversification the big goal is create a context where the country is not dependent on a single resource and with that they can distribute the risks of energy security. While the energy poverty increases, this will cause production to decrease so that the future dependence on imports increases. The diversification of import points and routes as pipelines will decrease the risk of energy security.

The transport and industry sectors of EU's economy consume nearly half of the total energy in the EU. Also some members of EU are in the top lines of the World industrial production like Germany. Plus the declining rates of production and increasing consumption of energy in the European Union creates a great need for energy and thus energy security. European Union, with its twenty seven members, has a large share in the world energy platform. Natural gas is the primary energy supply for Europe and Eurasia[8]. Europe's natural gas consumption increases 7, 4% in 2010 compared to 2009 statistics[9]. This will lead an increase in the natural gas imports of EU. Russia comes to scene in that point.

According to the World Factbook, Russia is the number one country in oil production in 2010 with 10.12 million bbl/day (estimated.)[10]. Russia exports 5,43 million bbl/day according to 2009 numbers and this makes them the second biggest country in the world in oil exportation[11]. When we looked into the natural gas field, Russia produces 583.6 billion cu m according to 2009 numbers, which makes them the

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[7] Checchi, Arianna and Behrens, Arno and Egenhofer, Christian. (2009) *Long-Term Energy Security Risks for Europe: A Sector-Specific Approach*. CEPS Working Document No. 309, 29 January 2009., p. 2

[8] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012)
[9] Ibid.

[10] The World Factbook, Central Asia, Russia, Economy Overview, <https://www.cia.gov/library/publications/the-world-factbook/geos/rs.html >, (accessed on 20 September 2011)
[11] *Ibid*.

second biggest country in the world in natural gas production[12]. In the field of exportation of natural gas they are the number one in the world with 179.1 billion cu m[13].The biggest partner of EU in the energy field is Russia. Being the world largest natural gas exporter according to the 2009 statistics, Europe carries great importance in the Russian energy market. The Russian gas export to EU covers about 46.8% of its overall trade in 2010[14].

Gazprom is the largest firm of the Russia which is a state controlled monopoly in natural gas market and controls nearly the 90% of the Russia's gas production and one fourth of the world's natural gas reserves[15]. It provides approximately the quarter of Russia's tax receipts[16]. The fear from Russian energy monopoly is based on this state owned Gazprom. Gazprom is mainly controlled by the 'siloviki' which is the former members of the Russian intelligence service who are personally close to Putin[17]. Thus, if we consider that some members of the EU are former Soviet republics, they don't want any Russian dominance again in their territory. But Russia as I stated above doesn't want to lose its power over EU energy market. That is why after the EU's announcement of the Nabucco Project, Russia announces its own view of solution to the energy security of Europe which is South Stream Project. Russia's latest project, South Stream is another project that Russia plans to export natural gas from Russian coasts to European Union other than Yamal-Europe, Nord Stream and Blue Stream pipelines.

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[12] The World Factbook, Central Asia, Russia, Economy Overview, <https://www.cia.gov/library/publications/the-world-factbook/geos/rs.html >, (accessed on 20 September 2011)
[13] *Ibid.*

[14] Economy Watch, '*Russia Trade, Exports and Imports*', <http://www.economywatch.com/world_economy/russia/export-import.html>, (accessed on 13 February 2012)

[15] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.2
[16] *Ibid.*
[17] *Ibid.*

1.2. Argument of the Thesis:

The main question of this thesis is; weather EU could realize its energy strategies of supply security and supply diversification simultaneously in its natural gas trade with Russia. To answer this question I will look at the search of Europe for new resources for their natural gas needs. It seems that, for EU it is impossible to let Russia out from their energy market. More importantly it is inevitable for Europe to let Russia be their main supplier of natural gas. This is because the market dependency of the post-soviet countries which are also EU member states. Their dependency levels affect the EU to act against Russia in energy matters. In addition to that what European Union search for is an uninterruptable reliable and cost efficient country that they can trade with. These features are present in Russian supplies. The only problem with Russia is that there are transit countries that deliver the Russian gas to Europe. However this transit problem is removed with the new proposed pipeline of Russia, the South Stream.

However, the general view about Russia as a world energy leader was very negative among Europe. This view I believe originates from the Cold War times. It is true that Russia after the fall of Soviet Union tries to regain its place and prestige in the international community. To reach their goal they have a strong tool like hydrocarbons. But while the trade in the Russian natural resources is gaining weight their economic dependence to selling these goods are also increasing. So that there is a mutual dependency is occurring between Russia and EU.

This thesis argues that Russia has been exploiting the underlying contradiction among the EU's energy strategy priorities; namely supply security and supply diversification. Emphasizing significance of supply security for European Union, Russia undermines the EU sponsored projects of supply diversification.

1.3. Organization of Chapters:

In this thesis there are six chapters. The first chapter is the introduction where I stressed the importance of energy in today's politics and its place in Europe and Russia. In the second chapter I will focus on the European Union member states and their natural gas dependency levels country to country. In addition to their individual situations in dependency to natural gas, I will look at the overall situation in European Union and try to interpret the future dependency levels.

In the following chapter, in the light of the dependency levels to Russian natural gas of Europe from the second chapter, I will examine the steps of formation process of the EU's energy security concept. In this chapter I will also look at the EU's inner energy dimension and energy policies and whether they are enough to create an energy security concept against Russia.

In the fourth part of the thesis, I will look at the formation of EU's Southern Gas Corridor and its historical evolution. I will look at four strong projects which are proposed to be the part of the Southern Gas Corridor. I will look at their routes, financing and costs one by one. In addition to these I will look at the overall problems that these projects are facing, especially the financing and the supply problems.

The fifth part examines the Russian South Stream project as a reaction to the other evolving European projects. I will look firstly at the historical evolution of the project. Then I will give information about the South Stream. I will look at the feasibility of the project, the financing and the route of the project. In addition to these I will look at the views about the South Stream, the cons and pros.

The sixth chapter is conclusion. In the light of the dependency levels and the resource problem of the EU's Southern Gas Corridor Projects, I will argue that the South Stream is a clear cut solution rather than those projects of Southern Corridor. This resource problem will force Europe to choose between supply security and supply diversification. I will argue that EU will choose supply security over supply

diversification since they have no solid resource for their Southern Gas Corridor projects. I will also support my claim with the reliability of the Russian resources in the Cold War era. Also there are problems of delay among the EU supported projects. All of the projects don’t have any ready resource. That is why I will argue that Russia has ready resources strong investors behind the project.

CHAPTER 2

NATURAL GAS DEPENDENCE OF EUROPEAN UNION COUNTRIES ON RUSSIA

This chapter focuses on the dependence levels of the European Union countries on Russian natural gas. I will briefly talk about the energy relations of EU and Russia and give a framework of the general picture of the natural gas trade relations between Russia and EU. After that, I will examine the 27 members of the EU one by one by looking their Russian natural gas dependence levels. To do that I divide the countries into four categories in accordance with the United Nations division of Europe; Eastern Europe, Northern Europe, Southern Europe and finally Western Europe[18]. I will argue that while the dependence levels increase to Russian gas in the country and union basis, there is interdependence between Russia and EU. That is why these levels are not something to be fear fiercely. In this chapter, the main intention is to create a better understanding of EU dependence on natural gas in the country basis, to create a fundamental for the third chapter where I discuss the contribution of Russia to the creation of the Energy Security Concept of Europe in terms of supply security and diversification.

2.1. The Current Situation in Russia- EU Energy Trade:

The energy relation of Europe and Russia dates back to the 19th century[19]. At that time Russian Empire supplied Europe oil from the Bakinskiy oil and gas region[20]. After the establishment of Soviet Union, the first time that Soviet gas came to Europe

[18] United Nations, "*Composition of macro geographical (continental) regions, geographical sub-regions, and selected economic and other groupings*",<http://unstats.un.org/unsd/methods/m49/m49regin.htm>, (accessed on 9 May 2012)

[19] Gusev, Alexander. '*Energy Relations Between The European Union and Russia: contend, problems, prospects'*, Diplôme des Hautes Etudes Européennes et Internationales Année universitaire 2007/2008, p.4

[20] *Ibid*.

was the gas delivers to Austria which was started in 1968[21]. Before the OPEC Crisis, Austria and Germany wanted a multicity in their energy resources because of the unstable environment of the Middle East, and despite strong objections from U.S, the Austrian OMV was the first western company that made a long term contract with the former USSR[22]. After Austria the second European country to get Soviet gas became Germany[23]. In 1970, West Germany signed a long term contract with Soviet Union[24]. After that Italy and France started to get Soviet gas[25]. And thus was taken the first steps in the entry of the Russian gas to Europe. Starting from 1970s, the hydrocarbon trade between Europe and Russia gained importance[26].

Today the declining rates of production and increasing consumption of energy in the European Union, creates a great need for energy. When we look at the Figure 1, we can see the rapid increase in the Europe's natural gas demand from 1960 to 2010. The slightly decrease in the years of 2008-2009 was due to the climate change and warmer winter as well as the economic recession in the EU[27]. The academicians and the researchers were predicting more increase in the next 20 years. The dependency on natural gas in Europe increases depending on to the interruptions of oil supplies, restrictions on CO2 emissions, high emissions from coal-based generation and the

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[21] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.94

[22] South Stream AG. , Cooperation, '*Austria*', < http://south-stream.info/index.php?id=24&L=1>, (accessed on 7 October 2012) - Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.159

[23] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.94
[24] *Ibid*.

[25] Smeenk, Tom. '*Russian Gas for Europe Creating Access and Choice*', 2010 Clingendael International Energy Programme, Jurriaans Lindenbaum Grafimedia b.v.,Netherlands, 2010, p. 111

[26] Gusev, Alexander. '*Energy Relations Between The European Union and Russia: contend, problems, prospects'*, Diplôme des Hautes Etudes Européennes et Internationales Année universitaire 2007/2008, p.5

[27] Honore, Anouk. '*Southern Energy Corridor Project vs. Economic Recession and Natural Gas Demand in Europe'*, The Oxford Institute for Energy Studies, CERI – Science-Po, Paris, May 2011, p.8

uncertainty of safety in nuclear power due to recent nuclear crisis in the Fukushima nuclear plant after the earthquake in Japan .The new laws and regulations about the carbon emissions will lead an increase in the usage of the natural gas in Europe and thus natural gas become one of the dominant fuels in EU. Plus this increase in usage of natural gas depends to its nearly equal expense with coal[28].

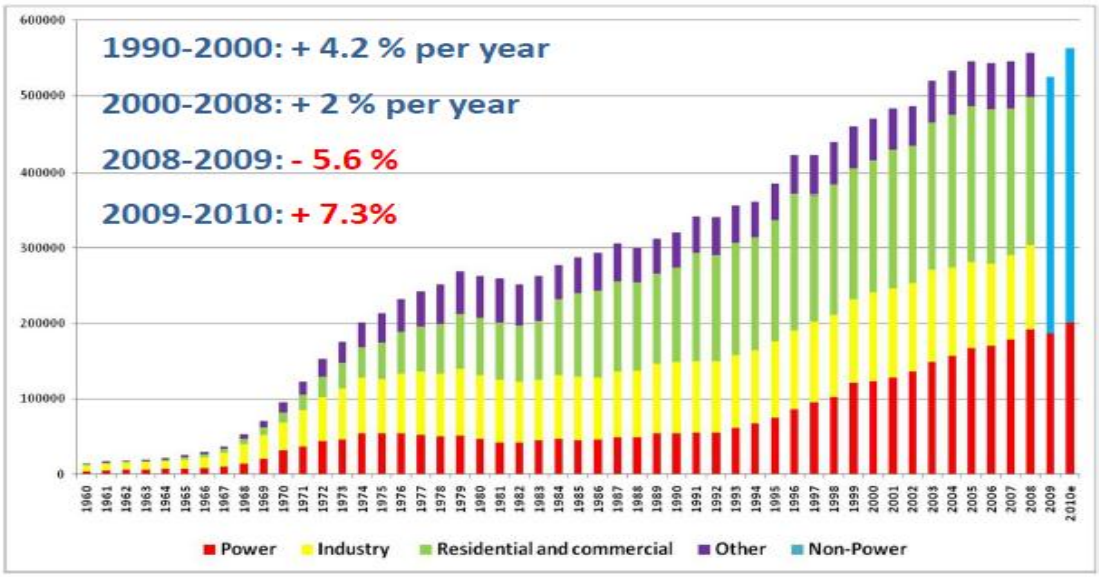

Figure 1: Gas Demand in Europe 1960 – 2010

Source: Honore, Anouk. '*Southern Energy Corridor Project vs. Economic Recession and Natural Gas Demand in Europe'*, The Oxford Institute for Energy Studies, CERI – Science-Po, Paris, May 2011, p.5

The reactions of this natural gas dependence of Europe, the diversity of dependence of energy among EU member countries creates differentiating approaches to Russia[29]. Peter Mandelson clarifies the situation of EU by saying "*no other country reveals our differences as does Russia*" during his speech in Bologna in 2007[30]. To see the energy dependence of European Union countries on Russia more clearly, I divided

[28] Checchi, Arianna and Behrens, Arno and Egenhofer, Christian. (2009) *Long-Term Energy Security Risks for Europe: A Sector-Specific Approach. CEPS Working Document No. 309, 29 January 2009,* p. 4

[29]Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009.., p.92

[30] Ibid., p.93

European Union Member States accordingly with the UN's geographical composition, which are; Northern Europe, Western Europe, Eastern Europe and theSouthern Europe[31].

2.2. Northern Europe: United Kingdom, Ireland, Sweden, Denmark, Finland, Latvia, Lithuania, Estonia:

The energy market of UK is one of the most advanced energy markets in EU and presently, it doesn't need any Russian boost. UK covers its need of energy by their production of oil and natural gas in the North Sea and imports from Norway[32]. However like the rest of the EU, the consumption of natural gas increases in UK. According to the BP statistics consumption increased 8, 3% from 2009 to 2010, while the production decreases 4, 3%[33]. On the other hand, the production of the natural gas and oil in the North Sea is in decline[34]. There hasn't been a major discovery in the field but there are small fields that have been found, so we can assume that this field is far from ending for Europe[35]. But its continuity as major oil and natural gas supplier depends on the availability of the investments and advantages in the technology to extract the old fields[36]. Knowing the risk, UK started to look for backup in case of depletion in North Sea. One of the proposed solutions for that situation is to get natural gas from Russia, and build a Russia-UK pipeline route[37]. I believe that it is inevitable for UK not to connect or expel Russia in the energy matters while Russia being the

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[31] United Nations, "*Composition of macro geographical (continental) regions, geographical sub-regions, and selected economic and other groupings*",<http://unstats.un.org/unsd/methods/m49/m49regin.htm>, (accessed on 9 May 2012)

[32] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.173

[33] BP, BP Statistical Review of World Energy 2011, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012)

[34] Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011 ,p.42

[35] *Ibid*.

[36] *Ibid*.

[37] Parliamentary Office of Science and Technology, Postnote, '*The Future of UK Gas Supplies'*, October 2004, No.230, p.3-4

number-one supplier of energy to Europe. As a matter of fact, there is a high possibility that the Nord Stream pipeline will provide natural gas to UK. According to The Scotsman, one of the most famous newspapers in Scotland, there have been discussions between Russia and UK about linking the Nord Stream pipeline to Britain[38].

The second country that I will examine in the Northern Europe is Ireland. Ireland doesn't import any direct natural gas from Russia[39]. They have a domestic production which covers %10 of their domestic natural gas demand[40]. Rest of this domestic demand was covered by the imports from UK[41]. About 96% of its gas was imported from Europe with the interconnector pipelines from UK[42]. New discoveries have been made in Ireland's Corrib Filed. With this new field, Ireland's dependency of natural gas expected to decrease about 60%[43]. They do not think about getting Russian natural gas in the future, and the reason they throw out is the possible interruptions of Russian gas to Europe[44]. But if Britain starts to get Russian gas from Nord Stream pipeline, than Ireland would be more dependent to Russian gas because of the interconnection between two countries in the energy matters because their main

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[38] The Scotsman, '*UK in Nord Stream Link Talks*', Published on Wednesday 7 March 2012, http://www.scotsman.com/the-scotsman/business/uk-in-nord-stream-link-talks-1-2156188# , (accessed on 19 April 2012)

[39] Feklyunina, Valentina. *'Russia's International Images and its Energy Policy. An Unreliable Supplier?'*, Europe-Asia Studies, Volume 64, Special Issue: 'Russia and the World', Issue 3, 2012,p.455

[40] Energy Delta Institute, Energy Business School, Country Gas Profiles, Ireland,<http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-gas-profile-ireland#t42853> , (accessed on 19 April 2012)

[41] *Ibid*.

[42] Shell Ireland, Corrib Natural Gas, Securing our Energy Future, <http://www.shell.ie/home/content/irl/aboutshell/our_business_tpkg/e_and_p/corrib/security_supply/>, (accessed on 20 April 2012)

[43] Energy Delta Institute, Energy Business School, Country Gas Profiles, Ireland,<http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-gas-profile-ireland#t42853> , (accessed on 19 April 2012)

[44] Shell Ireland, Corrib Natural Gas, Securing our Energy Future, <http://www.shell.ie/home/content/irl/aboutshell/our_business_tpkg/e_and_p/corrib/security_supply/>, (accessed on 20 April 2012)

supplier Britain will be dependent on Russian gas. Also the decline in the North Sea resources will affect the situation too.

Sweden is 100% dependent on natural gas imports[45]. That is because they have no production. However, Sweden is not importing natural gas from Russia. Most of the country's energy need is met by nuclear power[46]. About 3, 0% of the needed power is met by natural gas, which has the smallest share in the energy demand chart of Sweden[47]. Sweden's natural gas demand is dependent on imports from Denmark which corresponds to the Sweden's total imports of natural gas[48]. In 2010 Sweden's natural gas imports from Denmark was 1673 million cubic meters[49]. To decrease energy dependency with diversification, there are some proposed pipeline projects in Sweden. With the Polish gas monopoly PGNiG, Sweden was planning to get natural gas from Norway with the proposed Scanled pipeline[50]. However the Scanled pipeline project was postponed due to the completion of Medgaz[51]. Recently, Sweden is planning to

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[45] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Sweeden, p. IV.363

[46]Belkin, Paul. "*The European Union's Energy Security Challenges*," CRS Report for Congress , 30 January 2008,< http://www.fas.org/sgp/crs/row/RL33636.pdf >, (accessed on 28 October 2011), p.CRS 22

[47] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Sweeden, p. IV.356

[48] Energy Delta Institute, Energy Business School, Country Gas Profiles, Sweden, <http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-gas-profile-sweden#t44793 >, (accessed on 19 April 2012)

[49] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Sweeden, p. IV.360

[50] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009p.172

[51] Bilgin, Mert. '*Geo-economics of European Gas Security: Trade, Geography and International Politics*', Insight Turkey, Vol.12, No.4, 2010, p.189

create this diversification with the Gazprom's Nord Stream pipeline project, Sweden is planning to import Russian gas[52].

Like UK, Denmark has crude oil facilities as well as natural gas production facilities in the North Sea[53]. Recently there is new natural gas fields have been discovered in the south-western region of the Danish North Sea[54]. With the new energy security summits in Europe, the government of Denmark is willing to spend money for investments in the natural gas fields and increasing the natural gas production in the Danish North Sea. Also they are willing to do these investments because; they wanted to maintain their position in the European Union as a net exporter of natural gas until 2020[55]. According to the reports of Danish natural gas, the demand of natural gas in Denmark is expected to exceed the production approximately in 2021[56]. When we look at their 2010 production of oil, it has been decreased about -3, 0% and their consumption have increased 12, 2% compared to the previous year, 2009[57]. That is why Denmark is also one of the participants of the Russian Nord Stream pipeline.

Finland is the energy partner of Russian gas monopoly Gazprom for more than 35 years[58]. The St. Petersburg, Vyborg and Imatra pipelines were supplying natural gas to Finland's energy market 7,5bcm annually[59]. The Russian gas to Finland was

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[52] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.166

[53] Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011 ,p.42

[54] Herberth Smith, '*Denmark'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.105
[55]*Ibid*., p.111
[56] *Ibid*.

[57] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012) , p.24,25

[58] Gazprom, Export, Foreign Partners, Finland,< http://www.gazpromexport.ru/en/partners/finland/ >, (accessed on 23 April 2012)

[59] European Commission, *EU-Russia Energy Dialogue: The First Ten Years 2000-2010*, Brussels: European Commission Directorate-General for Energy, 201,European Commission, Market Observatory for Energy, March 2010, Country File: Russia, p.12

covering the demand since 1971[60]. Finland is also a former Soviet country. Due to the former agreements and structure of the Soviet Union Finland's energy consumption is highly dependent upon Russian gas. In 2004 statistics, Finland's 98% of domestic consumption is depending on Russian natural gas supplies[61]. Today their natural gas consumption has increased 9, 9% compared to 2009 statistics[62]. In the 2008 statistics, we can see that their dependency increased to %100 of their consumption[63].

Another EU member former Soviet country which is highly depending to Russia in EU is Latvia. Russian pipelines; Valday, Pskov and Riga brings natural gas supplies to Latvia[64]. According to the 2004 statistics Latvia's 100% natural gas consumption is depending to the supplies from Russia[65]. When we looked at the 2008 statistics the dependency level stayed the same for Latvia[66]. The deadlock of this dependency may occur because of the 'Baltic Energy Island'. Latvia, Lithuania and Estonia together called 'Baltic Energy Island' because although their energy system has interconnections with each other, they don't have connection with the rest of the EU[67]. So that they don't have any access to the other resources that come to Europe rather

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[60] Gazprom, Export, Foreign Partners, Finland,< http://www.gazpromexport.ru/en/partners/finland/ >, (accessed on 23 April 2012)

[61] Gelb, A. Bernard. '*Russian Natural Gas: Regional Dependence'*, CRS Report for Congress, 5 January 2007, RS22562, p.CRS -3

[62] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, *(*accessed on 30 May 2012), p.24,25

[63] Vitaly Protasov, EU-Russia Gas Relations: a View From Both Sides, International Association for Energy Economics, Fourth Quarter, 2010, p.28

[64] European Commission, *EU-Russia Energy Dialogue: The First Ten Years 2000-2010*, Brussels: European Commission Directorate-General for Energy, 2011
European Commission, Market Observatory for Energy, March 2010, Country File: Russia, p.11

[65] Gelb, A. Bernard. '*Russian Natural Gas: Regional Dependence'*, CRS Report for Congress, 5 January 2007, RS22562, p.CRS -3

[66] Vitaly Protasov, EU-Russia Gas Relations: a View From Both Sides, International Association for Energy Economics, Fourth Quarter, 2010, p.28

[67] Herberth Smith, '*Latvia*', EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.230

than the Russian gas. This situation makes these countries fully dependent to Russian natural gas[68]. At the same time, in these three countries Russian natural gas monopoly Gazprom owns great shares of the countries gas utilities, so that Gazprom has great influence in the domestic gas markets of these countries[69]. Russia had used its energy card to the Baltic States very often such as the case of the Latvia in 2003 when Russia stopped supplying the Latvian oil terminal in Ventpils by simply claiming that the there are no demands for using the Ventpils[70].The driven force behind this motive of Russia for most people is a power play to secure its controlling share of the Ventpils[71].

Lithuania doesn't have any natural gas resources[72]. Russian gas imports cover the %100 of the total gas import of Lithuania[73]. That is because Lithuania is also a former soviet republic just like Latvia. Lithuania has strong energy ties with Russia due to historical and geographical reasons[74]. Lithuania provides electricity to the Russian territory Kaliningrad and in return they have some counter-leverage on Russia, but this advantage seems diminishing[75]. Lithuania together with Latvia opposed to the Russian project Nord Stream[76]. They experienced cuts in their oil and gas deliveries as Russian

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[68] Herberth Smith, '*Latvia*', EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.230

[69] Baran, Zeyno. '*EU Energy Security: Time to End Russian Leverage*', The Washington Quarterly, Volume 30, Number 4, Autumn 2007, p.133

[70] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.12

[71] *Ibid*.,p.13

[72] Herberth Smith,' *Lithuania'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.240

[73] Feklyunina, Valentina. *'Russia's International Images and its Energy Policy. An Unreliable Supplier?'*, Europe-Asia Studies, Volume 64, Special Issue: 'Russia and the World', Issue 3, 2012,p.455

[74] Gusev, Alexander. '*Energy Relations Between The European Union and Russia: contend, problems, prospects'*, Diplôme des Hautes Etudes Européennes et Internationales Année universitaire 2007/2008, p.18

[75] Larsson,Robert. '*Nord Stream, Sweden and Baltic Sea Security*', FOI Base Data Report: FOI-R--2251--SE, Defence Analysis, Swedish Defence Research Agency, March 2007, Stockholm, p.41

[76] *Ibid*.

reaction to the decisions of their governments in contrast to Russian interests. On July 2006, Russia shut the Lithuanian pipeline[77]. The Russian excuse about the cutoff was that, it happened because of a technical difficulty and refused the offers to examine the damaged pipe or assist in the repairing process of other countries[78]. However it is believed that the real reason for this cut off was about the Russian energy company couldn't get one of the energy infrastructures in Lithuania[79].

Estonia, like Lithuania gets its 100% of total gas imports from Russia[80]. Estonia doesn't have any natural gas production[81]. Estonia was also one of the countries that affected from the Russian usage of energy as political tool[82]. A good example for this could be the event on May 2, 2007; Estonia faced cuts in their oil delivery from Russia because of the issue about relocation of a Soviet era memorial statue from a central square of Tallinn[83]. Estonia managed to decrease their usage of natural gas sharply from 1990 to 2010[84]. However the 100% of the consumption of natural gas still comes only from Russia[85]. To decrease the dependency to Russia Estonia is planning to build

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[77] Neuman, Marek, EU-Russian Energy Relations after the 2004-2007 EU Enlargement: An EU Perspective, Journal of Contemporary European Studies, Vol.18, No.3, September 2010, p.346

[78] Baran, Zeyno. '*EU Energy Security: Time to End Russian Leverage*', The Washington Quarterly, Volume 30, Number 4, Autumn 2007, p. 134
[79] Ibid., p.133

[80] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.164

[81] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Estonia, p. II.4

[82] Larsson,Robert. '*Nord Stream, Sweden and Baltic Sea Security*', FOI Base Data Report: FOI-R--2251--SE, Defence Analysis, Swedish Defence Research Agency, March 2007, Stockholm, p.53

[83] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.13

[84] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Estonia, p. II.8

[85] Vitaly Protasov, EU-Russia Gas Relations: a View From Both Sides, International Association for Energy Economics, Fourth Quarter, 2010, p.28

LNG import terminals[86]. Thus, Russian energy dominance makes Estonia dependent to Russia because of their 100% dependence on Russian gas and make Estonia stand weak in order to oppose to the demands of Moscow[87].

2.3. Western Europe: France, Germany, Belgium, Netherlands, Austria, Luxembourg:

The bigger member states, such as France and Germany have serious gas imports[88]. These states are mainly in the Western Europe. I will start with France. The 98% of the France's consumption of natural gas is imported[89]. While the primary energy supply of France is nuclear power, the natural gas is in the top three of the primary energy supply[90]. The supply diversification of France is strong. They secure their energy by getting energy from various sources. France gets its gas imports from approximately fifteen different sources by various routes from Norway, Netherlands, Algeria, etc.[91]. In addition to these routes and sources, France also gets Russian natural gas. The share of total gas imports from Russia was 21% in 2004[92]. In the 2007

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[86] Michael Ratner,Paul Belkin, Jim Nichol and Steven Woehrel, '*Europe's Energy Security: Options and Challenges to Natural Gas Supply Diversification*', Congressional Research Service, CRS Report for Congress,13 March 2012, R42405,p.25

[87] Smith, C. Keith. '*Russia and European Energy Security: Divide and Dominate*', Center for Strategic & International Studies, October 2008, Washington, p.17

[88] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.16

[89] Herberth Smith, '*France'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012
, p.148

[90] Aglika Ganova, European Union Energy Supply Policy: Diversified in Unity, Institut Europeen des Hautes Etudes Internationales, Diplome des Hautes Etudes Europeennes et Internationales, Nice, May 2007, p.38

[91] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009.., p.87

[92] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.164

statistics, we can see that this share increased to 22, 60%[93]. In this situation France has no energy security fear thanks to their energy policy. However, France has been taking Russian gas supplies since 1975[94]. France is the third biggest importer of Russian gas[95]. In 2010 the natural gas export rate of Russia to France climbed to 9, 8 billion cubic meters[96]. In an environment where Europe's own natural gas resources depleted slowly, France wants to develop long-term stronger relationship with Russia[97].

Another big user of natural gas in European Union is Germany because of its huge industry. Germany is titled as the world's 3rd largest gas importer after US and Japan[98]. It has the fourth largest economy by nominal GDP in the world[99]. Thus, just like France, their natural gas consumption was met by various countries such as, Netherlands, Holland, Norway, Russia, etc.[100]. To secure their widely used natural gas they have large storage facilities which have the capacity that can meet German's 19% of annual natural gas consumption[101].In addition to these facilities Germany also operates crude oil and natural gas facilities in the North Sea, just like Denmark and

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[93] Feklyunina, Valentina. *'Russia's International Images and its Energy Policy. An Unreliable Supplier?'*, Europe-Asia Studies, Volume 64, Special Issue: 'Russia and the World', Issue 3, 2012,p.455

[94] South Stream AG., Cooperation, '*France'*, <http://south-stream.info/index.php?id=62&L=1>, (accessed on 7 October 2011)

[95] Pierre, Noël. *'Beyond Dependence: How to deal with Russian Gas'*, European Council on Foreign Relations, Policy Brief ECFR/09, November 2008, p.9

[96] Gazprom, Export, Foreign Partners, France,< http://www.gazpromexport.ru/en/partners/france/>, (accessed on 23 April 2012)

[97] Gusev, Alexander. '*Energy Relations Between The European Union and Russia: contend, problems, prospects'*, Diplôme des Hautes Etudes Européennes et Internationales Année universitaire 2007/2008, p.17

[98] Energy Delta Institute, Energy Business School, Country Gas Profiles, Germany, <http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-profile-germany#t42791>, (accessed on 19 April 2012)

[99] *Ibid*.

[100] ENI, Natural Gas, European Market, '*Where does Germany's natural gas supply come from?*', < http://www.distrigas.eu/content/germany/de-en/natural-gas-de-en/european-market-de-en.html#1402>, (accessed on 27 February 2012)

[101] *Ibid*.

UK[102].Germany has energy trade ties with Russia since 1973[103]. Russia has the biggest share in Germany's gas imports with 35751 mcm with the share of 37, 8% according to the 2009 statistics[104]. The Russian gas imports covers 25% of the consumed gas in Germany[105]. When we look at the overall situation, Germany in 2009 was dependent to the Russian gas imports about 42.5% of their total natural gas consumption[106].That is nearly the half of their total consumption. But this dependence is mutual because Germany is the biggest client in the Russian natural gas market[107]. Since the Russian economy increasingly dependent on the energy exports, we can name the relationship between Russia and Germany as interdependence. Exports from Russia to Germany and Italy covers nearly 40% of the Gazprom's entire profit[108]. With the gas pipelines supplying Germany, Russia is able to supply France and Netherlands too, so that Germany also has an importance of transit country to Russia in supplying gas to Europe[109].

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[102] Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011 ,p.42

[103] Energy Delta Institute, Energy Business School, Country Gas Profiles, Germany, <http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-profile-germany#t42791>, (accessed on 19 April 2012)

[104] *Ibid*.

[105] Gusev, Alexander. '*Energy Relations Between The European Union and Russia: contend, problems, prospects'*, Diplôme des Hautes Etudes Européennes et Internationales Année universitaire 2007/2008, p.71

[106] Vitaly Protasov, EU-Russia Gas Relations: a View From Both Sides, International Association for Energy Economics, Fourth Quarter, 2010, p.28

[107] Gazprom, Export, Foreign Partners, Germany,< http://www.gazpromexport.ru/en/partners/germany/>, (accessed on 23 April 2012)

[108] Pierre, Noël. *'Beyond Dependence: How to deal with Russian Gas'*, European Council on Foreign Relations, Policy Brief ECFR/09, November 2008, p.9

[109] Gazprom, Export, Foreign Partners, Germany,< http://www.gazpromexport.ru/en/partners/germany/>, (accessed on 23 April 2012)

Belgium has no natural gas production[110]. That is why Belgium is 100% importer of natural gas[111]. Their natural consumption mainly relies on imports from, Algeria, Norway, and Denmark[112]. Only 5% of their total natural gas import comes from Russia[113]. This Russian natural gas supply comes from the transit pipeline of NEL[114]. Belgium is an important natural gas transit country in European Union[115]. As a transit country, Belgium has stronger supply security compared to the other European countries that has no status of transit country and natural gas production. Gaz de France (France), Electrabel (France), Distrigas (Italy), Wingas (Germany-Russia), RWE (German) ,SPE (France), Nuon (Sweden) , Essent (Germany) are some of the suppliers on the Belgian energy market[116]. So that we can say that Belgium has created a secure energy market that has supply diversification. However they have also a dominant player in their energy market. The main exporters of natural gas to Belgium are Netherlands' Groningen field[117]. Together with Luxemburg Belgium's total natural gas consumption increased 10, 9% from 2009 to 2010[118].

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[110]Herberth Smith, '*Belgium'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012,p.49

[111] BP, BP Statistical Review of World Energy 2011, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012)

[112] Stern, Jonathan. '*Security of European Natural Gas Supplies*', The Royal Institute of International Affairs, Sustainable Development Programme, July 2002, London
TAP, About TAP AG Company, <http://www.trans-adriatic-pipeline.com/about-us/tap-ag-company/>, (accessed on 1 May 2012), p. 13

[113] Commission of the European Communities, Commission Staff Working Document, Assessment Report of Directive 2004/67/EC on Security of Gas Supply, Brussels, July 2009, p.64

[114] FluxysG, '*Building a strong natural gas market in North-Western Europe'*, Key Figures, <http://www.fluxysg.com/en/aboutfluxysg/aboutfluxysg01.aspx>, (accessed on 25 April, 2012)

[115] Herberth Smith, '*Belgium'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.49
[116] *Ibid*.

[117] U.S. Energy Information Administration, International Energy Outlook 2011, September 2011, DOE/EIA-0484(2011), p.46

[118] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012)

The fourth country that I will examine in the Western Europe is Netherlands. Netherlands is a natural gas producing country. They are one of the important natural gas producers in the EU in terms of energy security. With UK, Netherlands produce nearly three quarters of the total European Union gas production[119]. Netherlands holds the second largest natural gas reserves in EU with its 2,335 natural gas supply per capita[120]. This makes them the second largest gas producer and exporter in Europe[121]. The source of their production comes from the natural gas facilities of Netherlands in the North Sea[122]. The natural gas has 45% share in the Netherlands total primary energy supply in 2009[123]. The gas production is increased 77295 mcm to 88516 mcm in 2006 to 2010[124]. Although Netherlands is among the largest natural gas providers of Europe and while the production of natural gas is increasing, they still import Russian gas using the Yamal-Europe gas pipeline[125]. Nevertheless the future isn't so bright for Netherlands because the natural gas reserves in the Netherlands are diminishing. From 2006 to 2010 the natural gas reserves decreased 1950 bcm to 1211 bcm[126].The Russian

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[119] Pierre, Noël. *'Beyond Dependence: How to deal with Russian Gas'*, European Council on Foreign Relations, Policy Brief ECFR/09, November 2008, p.6

[120] Energy Delta Institute, Energy Business School, Country Gas Profiles, Netherlands, <http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-gas-profile-netherlands> ,(accessed on 25 April 2012)

[121] Herberth Smith, *'Netherlands'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.292

[122] Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011 ,p.42

[123] Energy Delta Institute, Energy Business School, Country Gas Profiles, Netherlands, <http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-gas-profile-netherlands> ,(accessed on 25 April 2012)

[124] *Ibid.*

[125] Gazprom, Export, Foreign Partners, Netherlands, <http://www.gazpromexport.ru/en/partners/netherlands/> , (accessed on 23 April 2012)

[126] Energy Delta Institute, Energy Business School, Country Gas Profiles, Netherlands, <http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-gas-profile-netherlands> ,(accessed on 25 April 2012)

natural gas share in the total gas consumption of Netherlands is 6,18% which is rather low[127]. Thus in the future it is expected that these numbers were increase.

In Austria the natural gas is 24, 8% of their total energy demands[128]. Like Belgium, they don't have any natural gas production[129]. However the consumption of natural gas rapidly increases. Between the years 2009-2010, the natural gas consumption of Austria increased about 8, 6%[130]. In the EU territory, their main natural gas supplier is Norway and in 2010 they imported 1410 mcm natural gas from Norway[131]. However Russia has the biggest share in the Austrian natural gas energy market with 5698 mcm import in 2010[132]. The natural gas imports to Austria dates back to the Soviet times. The first Russian gas delivers to Austria started in 1968[133]. It was the first time that Soviet gas came to Europe[134]. Austrian OMV was the first western company that made a long term contract with the former USSR[135]. The main reason for that early relation with Russia is that, Austria after OPEC crisis wanted to reduce the Middle East share of energy in their energy market[136]. In that territory, the Russia is the

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[127] Feklyunina, Valentina. *'Russia's International Images and its Energy Policy. An Unreliable Supplier?'*, Europe-Asia Studies, Volume 64, Special Issue: 'Russia and the World', Issue 3, 2012,p.455

[128] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Austria, p.IV.94

[129] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.24

[130] *Ibid*.,p.25

[131] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Austria, p.IV.98

[132] *Ibid*., p.IV.99

[133] South Stream AG. , Cooperation, '*Austria*', < http://south-stream.info/index.php?id=24&L=1>, (accessed on 7 October 2012)

[134] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009.p.94

[135] South Stream AG. , Cooperation, '*Austria*', < http://south-stream.info/index.php?id=24&L=1>, (accessed on 7 October 2012)

[136] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.159

cheapest way to get natural gas without dealing with the Middle East. Today Russia and Austria also have partnership status. Russian Gazprom and Austrian OMV energy companies made a memorandum on May 2007 and based on this memorandum they signed the Agreement of Cooperation on January 25, 2008[137]. According to this agreement Russian Gazprom received 50% stake from the Central European Gas Hub (CEGH) which is fully owned by the Austrian OMV and also the parties agreed to cooperate in establishing joint underground gas storage in Austria and in neighboring countries[138].

In Luxembourg, they don't have any natural gas reserves and production[139]. That is why they are fully dependent on natural gas imports. Natural gas has a dominant place in Luxembourg's total energy supply mix[140]. The electricity was generated by natural gas in Luxembourg and it provides over 90% of total inputs to electricity generation[141]. In Luxembourg together with Belgium the change of natural gas consumption increased about 10, 9% between years 2009 and 2010[142]. Luxembourg has natural gas trade relations with Belgium and Germany[143]. Their main gas supplier is Norway[144]. But the Russian gas also has access to the Luxembourg energy market. The

[137] South Stream AG. , Cooperation, '*Austria*', < http://south-stream.info/index.php?id=24&L=1>, (accessed on 7 October 2012)
[138] *Ibid*.

[139] Energy Delta Institute, Energy Business School, Country Gas Profiles, Luxembourg, <http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-gas-profile-luxembourgh>, (accessed on 25 April 2012)

[140] International Energy Agency, Oil & Gas Security, Emergency Response of IEA Countries, 2010, <http://www.iea.org/papers/security/uk_2010.pdf >, (accessed on 25 May 2012), p.3
[141]*Ibid*., p.11

[142] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012)
[143] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012),p.24

[144]International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Luxembourg, p.IV.263

Russian gas in The Luxembourg energy market in 2010 was about 327 million cubic meters[145].

2.4. Eastern Europe: Czech Republic, Hungary, Poland, Slovakia, Bulgaria, Romania:

Natural gas has the third biggest share in the Czech Republic's total energy demand with its 18% share[146]. The natural gas production in the Czech Republic is in miniature numbers. The local production covers only the 1, 3% of the total consumption of gas[147]. That is why they need imports to fill the gap. The natural gas importers of Czech Republic are Norway and Russian Federation. But the main gas exporter of Czech Republic is Russia since it is a former soviet republic that has strong ties with Moscow. Czech Republic then called Czechoslovakia, was supplied by the Russian gas since 1967[148]. The share of Russian gas in Czech Republic's total gas consumption is more that 70%[149]. According to the 2008 statistics the Czech Republic's dependence to the Russian gas imports was 78, 3% and day by day it is growing[150]. The natural gas consumption in the Czech Republic is increasing rapidly and between the years 2009- 2010 the increase in the natural gas consumption is about 13, 7%[151].

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[145] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Luxembourg, p.IV.262
[146] *Ibid*., p.IV.312

[147] Herberth Smith, '*Czech Republic'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.100

[148] Gazprom, Export, Foreign Partners, Czech Republic,<http://www.gazpromexport.ru/en/partners/czech/>, (accessed on 23 April 2012)

[149] Gusev, Alexander. '*Energy Relations Between The European Union and Russia: contend, problems, prospects'*, Diplôme des Hautes Etudes Européennes et Internationales Année universitaire 2007/2008, p.71

[150] Vitaly Protasov, EU-Russia Gas Relations: a View From Both Sides, International Association for Energy Economics, Fourth Quarter, 2010, p.28
[151] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012)

Hungary is also among the consumer side of the natural gas in European Union. However in southern Hungary, a promising field of natural gas has been found recently but unfortunately exploiting the field is harder than it looks due to its depth and high temperature[152]. For now, it seems that Hungary will keep its position as a natural gas consuming country. Their consumption of natural gas increased over years 2009 to 2010 about 7, 7%[153]. Their main gas exporters are France, Germany and Russia[154]. Their energy relation with Russia dates back to 1970s. The first Russian gas delivers was done in 1975 to Hungary[155]. Hungary in 2008 was 76, 9% dependent on the Russian gas imports[156]. Before that in 2007 this number was 74, 90%[157]. So that it is clear that just like other European countries the dependence to the Russian gas in Hungary is also increasing. The exploitation of the new field in the southern Hungary will bring a kind of boost in the natural gas market but they would still be needing the natural gas exports to feed the countries total consumption.

Poland is among both consuming and producing countries[158]. In OECD Europe, Poland is the ninth largest gas consumer[159]. The natural gas in Poland's energy sector is

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[152] George A. Olah, Alain Goeppert and G. K. Surya Prakash (eds): '*Beyond oil and gas: the methanol economy*', 2nd updated and enlarged edition by: George Kauffman, Foundations of Chemistry, Wiley-VCH, Germany, p.46

[153] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012)
[154] *Ibid*.,p.29

[155] South Stream AG., Cooperation, '*Hungary'*, <http://south-stream.info/index.php?id=18&L=1>, (accessed on 6 October 2011)

[156] Vitaly Protasov, EU-Russia Gas Relations: a View From Both Sides, International Association for Energy Economics, Fourth Quarter, 2010, p.28

[157] Feklyunina, Valentina. *'Russia's International Images and its Energy Policy. An Unreliable Supplier?'*, Europe-Asia Studies, Volume 64, Special Issue: 'Russia and the World', Issue 3, 2012,p.455

[158] Chyong, ChiKong. "*The Economics of the South Stream pipeline in the context of Russo-Ukrainian gas bargaining*", <http://www.usaee.org/usaee2011/submissions/OnlineProceedings/Chyong_The Economics of the South Stream pipeline in the context of Russo – Ukrainian gas bagaining.pdf>, (accessed on 9 November 2011), p.8

[159] Energy Delta Institute, Energy Business School, Country Gas Profiles, Poland, <http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-gas-profile-poland>, (accessed on 25 April 2012)

the third largest one with the 12, 6% share in the total energy demand [160]. However their domestic gas resources are very limited. These resources are nearly equal to the 0, 05% of the world total natural gas reserves and had they have been decreasing[161]. In 2010 the production of natural gas in Poland was 4, 1 bcm, whereas the consumption was 14, 3 bcm[162]. That is to meet the full demand Poland is importing natural gas. Their main imports come from Germany and Russia[163]. Poland has getting Russian gas since 1944[164]. They are using the Yamal Europe pipeline to import Russian gas through Belarus[165]. The Russian gas imports were 63% compared to the total gas imports in Poland[166]. Their energy sector was closed to investment up until 2010 because the Polish government stated that before opening the energy market they need to make liberalizations in order to decrease the Russian dependency on energy[167]. That is why they have many anti-Russian policies in the energy field.

Slovakia has an important role as the transit country in European Union. Slovakia transmits about %20 of the total natural gas consumption of Europe from

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[160] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Poland, p.IV.308

[161] Energy Delta Institute, Energy Business School, Country Gas Profiles, Poland, <http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-gas-profile-poland>, (accessed on 25 April 2012)

[162] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, *(*accessed on 30 May 2012), p.24,25

[163] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Poland, p.IV.312

[164] Gazprom, Export, Foreign Partners, '*Poland'*, <http://www.gazpromexport.ru/en/partners/poland/ >, (accessed on 23 April, 2012)

[165] European Commission, *EU-Russia Energy Dialogue: The First Ten Years 2000-2010*, Brussels: European Commission Directorate-General for Energy, 2011
European Commission, Market Observatory for Energy, March 2010, Country File: Russia, p.12

[166] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009 p.164
[167] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009 p.164

Russia through Slovak-Ukrainian boarder[168]. Their domestic production of natural gas is barely existent[169]. However, as for having the one of the fastest growing economy in the European Union and the OECD, the consumption rates are increasing[170]. Between 2009 and 2010 the consumption of natural gas in Slovakia increased 14, 5%[171]. Also the natural gas in total energy demand has a nearly 30% share in Slovakia[172]. They are 100% dependent on Russian gas imports[173]. In 2008 they signed a 20 year agreement about the natural gas delivery from Russia[174].

On the Bulgarian side, Bulgaria is nearly 100% dependent on Russian gas[175]. The only country that exports gas to Bulgaria is Russia[176].The first links in the field of natural gas began in 1974 between Russia and Bulgaria[177]. Their domestic natural gas supply capacity is limited[178]. Their Galata field in the Black Sea supplies a very small share of the total consumption of natural gas[179]. In 2009 the domestic production of

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[168] Herberth Smith, '*Slovakia'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.367

[169] Energy Delta Institute, Energy Business School, Country Gas Profiles, Slovakia , <http://www.energydelta.org/mainmenu/edi-intelligence-2/our-services/country-gas-profiles/country-gas-profile-slovakia#t43064 >, (accessed on 25 April 2012)

[170] *Ibid*.

[171] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012)

[172] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Slovak Republic, p.IV.328

[173] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.164

[174] Gazprom, Export, Foreign Partners, '*Slovakia'*, <http://www.gazpromexport.ru/en/partners/slovakia/> , (accessed on 23 April, 2012)

[175] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.164

[176]South Stream AG., Cooperation, '*Bulgaria',* <http://south-stream.info/index.php?id=17&L=1>, (accessed on 4 October 2011)

[177] *Ibid*.

[178] Herberth Smith, '*Bulgaria'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.71

[179] *Ibid*.

natural gas in Bulgaria was 0,353 billion cubic feet[180]. In 2010 the Russian exports to Bulgaria was 2, 16 billion cubic meters of natural gas[181]. Bulgaria signed an intergovernmental agreement with Russia on January 18, 2008 about constructing a transit pipeline across Bulgaria in cooperation with Bulgarian government and the ownership was given equally to Gazprom and Bulgarian partners[182].

Romania' natural gas market is the largest one in Central Europe[183]. In 2010 Romania produced about 10,959 mcm of natural gas and consumed about 14,649mcm while they were importing the 2,271mcm of natural gas[184]. Natural gas in Romania has the share of 32% of the total energy mix[185]. Over the years of 2009 an 2010 the natural gas production of Romania decreased 2, 9% while their consumption has 0, 6% increased[186]. Romanian import partners are Uzbekistan and Russia[187]. The first Russian natural gas was given to Romania in the year of 1979[188]. The share of Russian natural

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[180] U.S. Energy Information Administration, Country Data, Bulgaria, Country Analysis Brief, <http://www.eia.gov/countries/country-data.cfm?fips=BU#ng>, (accessed on 27 April, 2012)

[181] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, *(*accessed on 30 May 2012), p.28

[182] South Stream AG., Cooperation, '*Bulgaria',* <http://south-stream.info/index.php?id=17&L=1>, (accessed on 4 October 2011)

[183] Herberth Smith, '*Romania'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.335

[184] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , p.II.5

[185] Commission of the European Communities, Commission Staff Working Document, Assessment Report of Directive 2004/67/EC on Security of Gas Supply, Brussels, July 2009, p.73

[186] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, *(*accessed on 30 May 2012), p.24,25

[187] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , p.II.25

[188] South Stream AG., Cooperation, '*Romania'*, <http://south-stream.info/index.php?id=23&L=1>, (accessed on 4 October 2011)

gas in the Romanian total gas imports in 2004 was 100%[189]. Romania signed an agreement in 2007 about providing the Russian gas to Romania till 2030[190].

2.5. Southern Europe – Italy, Slovenia, Greece, Portugal, Spain, Malta, Cyprus:

At the Southern Europe, Italy has one of the biggest energy markets in Europe. Italy has its own sources of natural gas. They have the second largest LNG capacity in Europe[191]. But this resource of Italy is in decrease. In end of 2000 Italy had 0, 2 tcm of natural gas but in the end of 2009 this number decreased to 0.1 tcm[192]. Italy is one of the most Russia-confident countries in the European Union other than Germany in energy matters[193]. The energy relationship between Russia and Italy also has good dynamics because of the relationship between Putin and Berlusconi. Italian Energy Company ENI and Russian Gazprom signed a Strategic Partnership Agreement on November 14, 2006 about supplying the Italian natural gas market with the Russian gas starting from 2007[194]. This contract about supplying Russian gas to Italy was extended to the end of 2035[195].The natural gas exports to Slovenia started in 1978[196].

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[189] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.164

[190] Gazprom, Export, Foreign Partners, '*Romania'*, <http://www.gazpromexport.ru/en/partners/romania/> , (accessed on 23 April 2012)

[191] Checchi, Arianna and Behrens, Arno and Egenhofer, Christian. (2009) *Long-Term Energy Security Risks for Europe: A Sector-Specific Approach. CEPS Working Document No. 309, 29 January 2009*, p. 23

[192] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.20

[193] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.166

[194] South Stream AG., Cooperation, '*İtaly'*, <http://south-stream.info/index.php?id=16&L=1>, (accessed on 4 October 2011)

[195] *Ibid*.

[196] South Stream AG., Cooperation, '*Slovenia'*, <http://south-stream.info/index.php?id=21&L=1>, (accessed on 6 October 2011)

In Spain, they have no natural gas production[197]. That is why they are among the consuming countries in European Union. The natural gas in 2007 has 22% share in Spain's total energy mix and most of the natural gas was used in power generation area[198]. Spain doesn't have any gas imports from Russia because of their main provider Algeria and they are unique among EU states that have a quota for their imports of gas from another country[199]. Spain seems very couscous about their dependency on energy because they have passed a law on 2000 about self-imposed limit on their gas consumption coming from another country which is 60% of their total gas consumption[200]. When we look at the statistics of natural gas consumption between years 2009 and 2010, their laws on energy seems to be paid off. The consumption of natural gas in Spain seems to be decreased about 0,3% compared to 2009[201].

Slovenia has no natural gas production[202]. Natural gas has the fourth place in the energy mix of Spain. Natural gas has the share of 13% in the total energy mix[203]. The natural gas was widely used in the households, industry and service sector in Slovenia. Slovenia is importing natural gas from Algeria and Russia[204]. In 2007 the share of total gas imports from Russia was 50.91% and this number rapidly

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[197] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.22

[198] Commission of the European Communities, Commission Staff Working Document, Assessment Report of Directive 2004/67/EC on Security of Gas Supply, Brussels, July 2009, p.75

[199]Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.85

[200] *Ibid*.

[201] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.22

[202] Ibid.,p.23

[203] Commission of the European Communities, Commission Staff Working Document, Assessment Report of Directive 2004/67/EC on Security of Gas Supply, Brussels, July 2009, p.74

[204] Stern, Jonathan. '*Security of European Natural Gas Supplies*', The Royal Institute of International Affairs, Sustainable Development Programme, July 2002, London
TAP, About TAP AG Company, <http://www.trans-adriatic-pipeline.com/about-us/tap-ag-company/>, (accessed on 1 May 2012), p. 13

increasing[205]. That is why Slovenia is among the countries that dependent to Russia on natural gas. The Russian natural gas exports to Slovenia have started in 1978[206]. Slovenia maintains close relationship with Russia because Russia has a strong place in the energy market of Slovenia. The Russian Gazprom has 52% share in Slovenia's energy market[207]. Slovenia is also one of the partners of Gazprom in South Stream project. They are planning to get more Russian natural gas in the future.

Greece doesn't have any natural gas production[208]. They import natural gas from Algeria, Egypt and etc. but their main natural gas import resource is Russia[209]. The natural gas has the share of 11.8% in the total primary energy supply of Greece according to the 2010 statistics[210]. Greece is one of the highly dependent countries to Russian gas in European Union. In 2007 76% of their natural gas imports come from Russia[211]. The natural gas exports to Greece from Russia started in 1996[212]. The first intergovernmental agreement with Greece about the South Stream was signed on April 29, 2008[213]. With this agreement a joint venture on parity basis among Greek Public Gas Corporation DESFA and Russian Gazprom, was proposed for the pipeline

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[205] Feklyunina, Valentina. *'Russia's International Images and its Energy Policy. An Unreliable Supplier?'*, Europe-Asia Studies, Volume 64, Special Issue: 'Russia and the World', Issue 3, 2012,p.455

[206] Gazprom, Export, Foreign Partners, '*Slovenia'*, <http://www.gazpromexport.ru/en/partners/slovenia/>, (accessed on 23 April 2012)

[207] Smeenk, Tom. '*Russian Gas for Europe Creating Access and Choice*', 2010 Clingendael International Energy Programme, Jurriaans Lindenbaum Grafimedia b.v.,Netherlands, 2010, p. 233

[208] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.22

[209] *Ibid*.

[210] International Energy Agency (2011), *Natural Gas Information 2011*, OECD Publishing. doi: <10.1787/nat_gas-2011-en> , Austria, p.IV.190

[211] Commission of the European Communities, Commission Staff Working Document, Assessment Report of Directive 2004/67/EC on Security of Gas Supply, Brussels, July 2009, p.68

[212] South Stream AG., Cooperation, '*Greece'*, <http://south-stream.info/index.php?id=22&L=1>, (accessed on 6 October 2012)

[213] *Ibid*.

construction[214]. The agreement was ratified by the Greek Parliament on September 2, 2008[215].

Malta doesn't have any natural gas production so that they are 100% dependent imports[216]. Because Malta is a small island they import natural gas with LNG[217]. They have no natural gas transmission networks[218]. Malta and Cyprus don't have any natural gas imports from Russia[219].

Cyprus currently doesn't have any natural gas resources. Cyprus doesn't use any natural gas[220]. The needed energy is met by the oil imports[221]. The countries oil imports have become so massive that the government decided to introduce the natural gas to the Cyprus energy market[222]. In the EEZ of the Cyprus there are some explorations for hydrocarbons by Shell[223]. The government was hoping to find natural gas in the field.

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[214] South Stream AG., Cooperation, '*Greece'*, <http://south-stream.info/index.php?id=22&L=1>, (accessed on 6 October 2012)
[215] *Ibid*.

[216] O'Connor, Anna. '*Supply Security and Sustainability in the EU's Energy Strategy'*, MSc International Relations, Graduate School of Social Sciences, Universiteit van Amsterdam, The Political Economy of Energy, Amsterdam, July 2010, p.35

[217] Herberth Smith, ' *Malta'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.272
[218] Herberth Smith, ' *Malta'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.272

[219] Tom Casier, "*The Rise of Energy to the Top of the EU-Russia Agenda: From Interdependence to Dependence?*" Geopolitics, 2011, 16:3,p. 542

[220] Herberth Smith, '*Cyprus'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.91
[221] *İbid*.
[222] *Ibid*.
[223] Herberth Smith, '*Cyprus'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.87

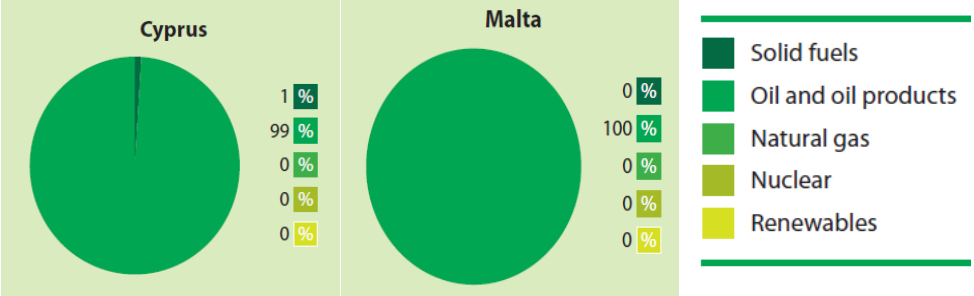

Figure 2 : Gross Internal Consumption (in %) – 1998

Resource: European Commission (2000), Towards a European Strategy for the Security of Energy Supply, Green Paper, COM(2000) 769 final, Brussels, p.26-27

Portugal has no natural gas production. They get the natural gas from Qatar, Algeria, Spain, Norway, and Trinidad & Tobago[224]. But the main natural gas exporter to Portugal is Nigeria[225]. They are highly dependent on the natural gas import that is why Portugal is one of the vulnerable countries in terms of natural gas imports. However the national legislation of Portugal stipulated that only %60 of the countries natural gas can come from one supplier[226]. With this obligation they created somewhat a protective environment for their dependency on imports. The natural gas in Portugal is the third biggest share in the countries energy mix with 15%, and widely used in power generation[227]. When we look at the current situation, the change 2010 over 2009 in natural gas consumption in Portugal is increased 6.7%[228]. So they will be needed new sources of natural gas in order to meet the future demand of the country.

[224] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.28
[225] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.28

[226] Commission of the European Communities, Commission Staff Working Document, Assessment Report of Directive 2004/67/EC on Security of Gas Supply, Brussels, July 2009, p.35
[227] *Ibid*., p.73

[228] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.23

Ultimately when we look collectively at the final situation, UK, Denmark and Netherlands have their own production of gas in the North Sea so that they are one of the few countries that feel secure about energy dependence[229]. Another country that feels secure as much as Denmark and Netherlands is Spain. The North Sea carries great importance in the energy dependence not only for Denmark and UK but for the whole Europe. However among these countries, even the most advantaged one, UK, is thinking to get a UK-Russian pipeline in the case of depletion of their resources. The North Sea is the major oil and gas production region of Europe[230]. And the production in the North Sea gradually decreases. Around Europe the only country that is convenient in terms of distance and source availability is Russia. To drop out Russia in the energy matters of EU, European Commission created the Southern Gas Corridor Project. As a resource for the Southern Gas Corridor Project, European Commissions in favor of getting the gas from Central Asia and Middle East. However in the Central Asia case, their resources are not sufficient enough to feed all the proposed projects of the EU in the concept of a Southern Gas Corridor. In Middle East the political situations makes the energy trading environment insecure.

I will give more information about the Southern Gas Corridor and the possible supply sources in the following chapter but as a conclusion for this chapter, the overall situation of the EU countries in the matter of natural gas dependency, I can say that it is inevitable for EU to stop the rapid increase its gas imports from Russia. Because as I mentioned it earlier, with the 2004 enlargement of EU, created the environment that most of the members of the union dependent to Russia in energy matters. The Central European countries have great deal of energy security problems and dependence due to their old connection with Soviet Union and its gas system. Slovakia, Bulgaria, Finland,

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[229]Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.87

[230] Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011 ,p.42

Estonia, Latvia, Lithuania are 100% dependent on Russian gas[231]. In addition to these countries, Russian natural gas meets approximately half consumption of Greece, Czech Republic, Hungary, Poland, and Austria[232].The natural gas dependence levels of other European countries is in between of France and Baltic States. The general picture of EU as in the term of dependence on Russia in energy, Russia provides approximately half of EU's natural gas, 32% of its oil and 24% of its coal imports, plus nearly the all uranium fuel imports[233].

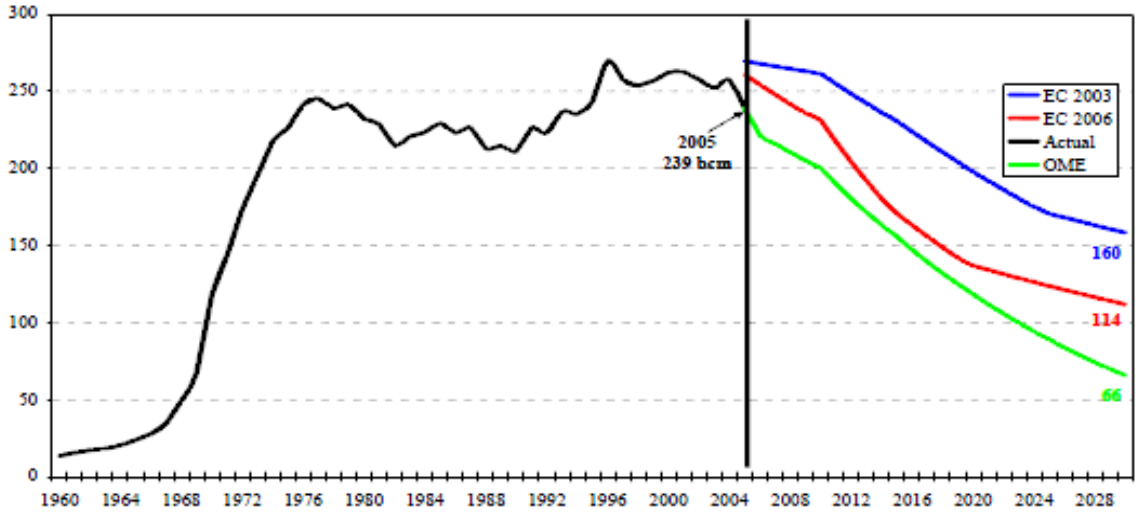

Figure 3: EU gas production outlooks to 2030 (Bcm)

Source: Checchi, Arianna and Behrens, Arno and Egenhofer, Christian. (2009) *Long-Term Energy Security Risks for Europe: A Sector-Specific Approach. CEPS Working Document No. 309, 29 January 2009*, p. 15

In Figure 2, it creates a framework of what we should expect until 2030 in terms of energy production of EU. From that we can see that in the future the production levels of the producing countries of European Union began to fall in the mid of 2004 and expected to decrease rapidly. With the decrease in the natural gas production in

[231]Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.87
[232]*Ibid*.
[233]*Ibid*., p.91

European Union territory, the dependence to the imports rapidly increases. As The Department of Trade and Industry predicts, it is possible that, by 2020 the UK may import 80% of its natural gas needs and by 2030 the natural gas imports of EU expected to increase 65% more of its today demand [234].

The biggest and the nearest possible natural gas exporter to Europe is in that case is Russia. Because the transportation cost of natural gas is important to EU. Russia is very close to Europe in geographical means. So transportation of the energy is easy and cheap. It will affect the natural gas prices and this will create difficulties in one of the EU member countries to access this energy source because of the expenses and this situation may lead to economic problems in that country. Also if EU decided not to get the Russian gas, the other possible countries that EU may get their needed natural gas are deeply in influence of Russia in terms of economy and politics due to their connection with Moscow in Soviet times.

[234] Checchi, Arianna and Behrens, Arno and Egenhofer, Christian. (2009) *Long-Term Energy Security Risks for Europe: A Sector-Specific Approach. CEPS Working Document No. 309, 29 January 2009,* p. 15

CHAPTER 3

EU'S ENERGY SECURITY CONCEPT AND RUSSIA

The concept of the energy security carries a great importance in the European Union. For many European countries the 'energy security' subject comprised from energy dependence to Russia, since many members of European Union has strong ties with Moscow from the Soviet times. Russia will probably be the 'Europe's mainstay supplier' of natural gas in the future because it has advantageous positions like; having the world's largest gas resources, being the nearest source for Europe to import gas and many present pipelines are in control of Russian firms[235]. But also the geography of the underground sources and the availability of these resources plays a big role in dependence of Russia because some of the countries in EU has gas, some don't so, that those lack of gas need to buy it from other countries and in many cases from outsiders of the EU. To understand how Russia and its energy trade to European countries affected the development of the Energy Security Concept of EU, it is important to look at the internal formation of the energy security matters of the EU.

3.1. Importance of the Energy Security to EU:

The relations with Russia and EU have been up and down. Nevertheless, Russia is the most important energy partner of EU[236]. While having such strong ties with Russia in the energy field, EU has some problems about 'energy security issue' concerning Russia. Generally the EU's view about Russia in the EU's energy dependence is that Russia has profound intentions other than trade. Javier Solama, who is a High Representative for Common Foreign and Security Policy, stated on February

[235]Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.80
[236] *Ibid*., p.91

2008 that "*Russia's energy policy follows a tight script, it has a sense of strategic purpose*."[237].

The overall situation in the world energy arena is that, recently Russia started to introduce itself as the world's energy superpower[238]. This understanding of Russia started to become doctrinal to many Russian leaders who believe that the oil and gas industry will last enough to be set as the main power supply of the Russian economy and support Russia in the international arena[239]. One of the most important cornerstones of the Russian economy, which makes the country a strong competitor in the international energy market, is the natural resource sector[240]. By looking at these developments in the Russian economy and the energy sector, EU started to get a little disturb because of the power that Russia gains with its energy dominance.

The future predictions were generally in the way that Russia will use its power among the EU. This view is convenient if we take a look at the neighbors of Russia. The growing and hungry energy markets of Europe and Asia is next to Russia territory[241]. So this makes the Russian economy and its government budget get depended to the oil and gas revenues day by day[242]. One-third growth of the GDP of Russia comes from this natural resource sector[243]. In addition to these the neighbors of

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[237]Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009 ,p.91

[238] Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011
,p. 158
[239] *Ibid*.

[240] Philip Hanson, "The Sustainability of Russia's Energy Power", der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.27

[241] Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011
,p. 161

[242] *Russia Energy Sector Handbook Volume 1: Strategic Information and Important Developments, International Business Publications, Washington, 2010.*, p.31

[243] Stacy Closson, "*Russia's Key Customer*", der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.89

Russia, especially the ones that have ties with Moscow from the days of Soviet Union, encounter many problems regarding energy matters with Russia. Europe was a close follower of those energy controversies of Russia. Russia was drawing the attention of EU with its elevation of the gas prices and energy cut offs to its neighboring states. This image of Russia in EU has negative flashbacks about its place as an energy supplier to Europe. That is why providing energy security and supply with reliable sources to the EU other than Russia, gained importance in EU's energy politics and foreign politics.

European Commission defined the Energy Security Concept as "*Uninterrupted physical availability of energy products on the market at an affordable price for all consumers*"[244]. To fulfill the first requirement of having an uninterrupted natural gas flow, they need a reliable source. The most secure and the most reliable source would be inside the European Union but European Union doesn't have enough gas production rates to meet the consumption in its territories. According to the 2010 statistics, European Union produce 174, 9 bcm of natural gas, while consuming 492, 5 bcm[245]. There is a 312,6 bcm gap between supply and demand. That is why Europe meets its remained energy demand through imports. From this 312,6bcm imported gas, 110,43bcm of it was imported from Russia in 2010[246]. This means that nearly half of the natural gas imports of EU come from Russia. The gap between natural gas production and consumption is twice the size of the production of EU. In this context resource diversification policy of the European Union is becoming very important tool to reduce dependence on imports.

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[244] Sovacool, Benjamin K. '*The Routledge Handbook of Energy Security*', Taylor &Francis, 2011, New York
York, p. 4

[245] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.22,23
[246] *İbid*., p.29

3.2. European Union's Energy Dimension:

To achieve a strong policy on energy dependence requires unity of the all members of the EU. The inner workings of the European Union, EU doesn't have the classical attributes and means of geopolitical power of a state to create a unique conception of its own for international relations[247]. This lack of power creates problems for the European Union to pursue a proprietary foreign policy on energy trade. In a crowded environment where everyone had different interest, creating a collective energy policy has its difficulties. Especially with the acceptance of new member states to the union in 2004, this became harder because the diversities between states increased in the absence of the means to enforce its own sovereignty[248]. This situation created a vulnerability of energy security in EU. To decrease this vulnerability Europe gives weight to the concepts of 'diversification energy' and 'supply security'.

European Union's energy dimension is weaker than other federal systems because EU has a different federal energy policy that is mostly formed only by warnings because of its national sovereignty fundamentals[249]. EU has no power over the energy economics, taxation policy or the reserves of the member states[250]. This means that EU has no direct power over the energy policies of the member states in order not to interrupt member states' interests. There is no political attribution which gives a solid power to EU in foreign energy policy matters, however the Lisbon Treaty gives empowers the EU in matters of energy policies but still not strong as an political attribution[251]. This is mainly because member states wanted to be free in their choice of

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[247] Finon, Dominique. '*The EU foreign gas policy of transit corridors: autopsy of the stillborn Nabucco project*', OPEC Energy Review, 2011, Organization of the Petroleum Exporting Countries, Blackwell Publishing Ltd, USA., p.49
[248] *Ibid*.

[249] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.9
[250] *Ibid*.

[251] Finon, Dominique. '*The EU foreign gas policy of transit corridors: autopsy of the stillborn Nabucco project*', OPEC Energy Review, 2011, Organization of the Petroleum Exporting Countries, Blackwell Publishing Ltd, USA., p.49

resource countries and, they don't want to be questioning about the source of their energy or where they get it from[252].

Also a strong, powered branch involved with the energy matters is inconvenient to the European Union main purpose which we can say that is 'unity and diversity'. However, European Union is constantly making an effort to achieve cultural, political and economic homogeneity to create the unity. We can see these efforts in the compliance laws and commissions of EU in the candidate countries, such as Turkey. But there are certain lines that EU couldn't pass. That is why the source of energy and the usage remains as a national prerogative[253]. So this is creating an increasing divergence in energy matters of EU. At the same time, the bigger member states like Germany, Italy and France do not feel comfortable with the idea that the EU energy policy will be dependent to a single voice of a community or a branch because they are mostly developed their own gas industry and their own energy infrastructures which are depending on to world industry leaders and sign long-term supply arrangements with foreign producers which have their political support[254]. Italy and Germany have strong ties with Russia in the energy field. In the energy matters these states act in favor of Russia and that makes the energy connections between the member states weak.

EU Commission doesn't have enough power to shape these members states' energy markets[255]. They can only create "*a multilateral, rules-based approach to energy security*"[256]. Former UK prime minister Tony Blair stated this lack of unity between member states on 2005 European Parliament that "*For far too long we have been in a situation where, in a haphazard and random way, energy needs and energy*

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[252]Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.80
[253]*Ibid*.

[254] Finon, Dominique. '*The EU foreign gas policy of transit corridors: autopsy of the stillborn Nabucco project*', OPEC Energy Review, 2011, Organization of the Petroleum Exporting Countries, Blackwell Publishing Ltd, USA., p.49

[255] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.9
[256] *Ibid*., p.11

priorities are simply determined in each country according to its needs, but without any sense of the collective power we could have in Europe if we were prepared to pool our energy and our resources."[257]. The collective action can help many states in the emergency situations where ones energy sources were unable to use and with the collective energy security plan, rules and regulations this lack of energy can be neutralized. Due to lack of this kind of cooperative action among EU, some contradictions occur between member states about their domestic actions of energy.

In external energy policy area, the power of the commission is also weak[258]. The member states don't have any platform to speak out as one when it comes dealing with outside suppliers, and also there is no tradition among the member states to inform the Brussels about their bilateral energy agreements between outside countries[259].

3.3. The Formation Process of the EU's Energy Security:

In 1990s, EU attempted to create an environment to harmonize the laws and market rules about investments in energy sector with Soviet bloc countries and Russia[260]. That is why in 1991 the European Energy Charter Treaty was signed between Soviet Union and EU, then known as European Community (EC)[261]. The objective of this treaty was to improve the east west cooperation in energy[262]. Also with this treaty there will be a legal and binding framework in the trade and investment matters in the energy relations between Russia, post-soviet states and EU to arrange the

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[257] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009, p.12
[258] *Ibid* .,p.10
[259] *Ibid*., p.11

[260] Finon, Dominique. '*The EU foreign gas policy of transit corridors: autopsy of the stillborn Nabucco project*', OPEC Energy Review, 2011, Organization of the Petroleum Exporting Countries, Blackwell Publishing Ltd, USA., p.50

[261] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.84

[262] Ganova, Aglika. '*European Union Energy Supply Policy: Diversified in Unity*?', Diplôme des Hautes Etudes Européennes et Internationales, , Diplôme des Hautes Etudes Européennes et Internationales, Nice, May 2007, p.71

energy relations as in the cross-border investments and trade with the new established countries [263]. The new post-soviet states have the hydrocarbon resources but without Russia they were unable to extract them. Another goal of this treaty was to bring the know-how to these countries and snatch them off from the Russian influence in the energy matters so that they will become beneficial for EU.

The European Energy Charter Treaty is a landmark in the energy security policy of European Union because it is the only specific international agreement which covers precisely energy[264]. This treaty is an important step towards the creation of an integrated energy sector. But for a proper functioning of this treaty it is needed that all the participating countries needed to ratify the treaty. Russia' attitude towards this agreement is particularly important.

1994 another Energy Charter Treaty was signed between EU and Russia. The objectives of this treaty included enhancing the international cooperation in the energy sector and carrying out this energy trade with the regulations of the World Trade Organization (WTO) and the General Agreement on Tariffs and Trade (GATT)[265]. Russia signed the treaty but never ratified it[266]. The reason of Russia for not signing the ECT is that they considered the treaty as a 'deadly threat to its interests' because, although treaty protects Russia from any transit violation from Ukraine and Belarus, it also grant access to uncontrolled transit from Central Asia, across Russia to Europe[267].

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[263] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.84

[264] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.84

[265] Ganova, Aglika. '*European Union Energy Supply Policy: Diversified in Unity*?', Diplôme des Hautes Etudes Européennes et Internationales, , Diplôme des Hautes Etudes Européennes et Internationales, Nice, May 2007, p.71

[266] Gusev, Alexander. '*Energy Relations Between The European Union and Russia: contend, problems, prospects'*, Diplôme des Hautes Etudes Européennes et Internationales Année universitaire 2007/2008, p.97

[267] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.97

This non ratification of Russia lowered the trust between Europe and questionize the Russia's place as a reliable partner of Europe in the energy sector. However with not ratifying this treaty Russia wants to carry out bilateral relations in the energy matters with EU. This situation disturbs the member states because they are all adopted the laws and regulations of the ECT. They created a secure environment in their energy relations with each other and they want to maintain their energy relations that way.

Also, Russia not being a member of the ECT makes the EU's diversification goal and security of supply hard to achieve because firstly it created an unreliable environment because the energy sector in Russia has close links with the Kremlin[268]. As I stated earlier Gazprom is the largest firm of the Russia which is a state controlled monopoly in natural gas market and controls nearly the 90% of the Russia's gas production and one fourth of the world's natural gas reserves[269]. It provides approximately the quarter of Russia's tax receipts[270]. Gazprom is mainly controlled by the 'siloviki' which is the former members of the Russian intelligence service who are personally close to Putin[271]. By having this kind of energy company in the EU energy matters, supplying hydrocarbon resources to the EU member states and knowing that Russia has never ratified the treaty deeply disturbs some members of EU.

For the development of the energy relations between Russia and EU, the PCA agreement helped to create the framework and development of political relations. In 1994, the EU-Russia Agreement on Partnership and Cooperation was signed and entered into force on 1 December 1997[272]. This agreement created a framework of legal

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[268] Sierra ,Oscar. '*A corridor through thorns: EU energy security and the Southern Energy Corridor*', European Security, Vol.9 , No.4, Special Issue: The EU, Russia and the shared neighborhood: security governance and energy, December 2010, Taylor & Francis, p.646

[269] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008
, p.2

[270] *Ibid*.

[271] *Ibid*.

[272] European Commission, *EU-Russia Energy Dialogue: The First Ten Years 2000-2010*, Brussels: European Commission Directorate-General for Energy, 2011, p.8

basis between EU Russian relations in political, economic and cultural agendas[273]. Also created the fundamentals of the energy dialogue between Russia and EU [274]. Also signing and accepting this agreement show that Russia's willingness to get closer linkages with EU in the energy field and they are eager to cooperate within EU norms at some level. However PCA was not sufficient in finding solutions to the problems that Russia and EU facing in energy relations. That is why EU and Russia needed a comprehensive legal basis for their energy dialogue.

The formation of energy dialogues between EU and Russia started in the Paris EU-Russia Summit on 30 October 2000[275]. The Paris EU-Russia Summit Agreement commenced energy partnership between Russia and the European Union with regular dialogue[276]. Also the agreement objective is to create a an environment to provide reliability, security and predictability of energy relations between Russia and EU and increase mutual confidence and transparency in long term free market[277]. This agreement has added improvement in the energy relations. After the 2000 EU-Russia Summit, a technology center in Moscow opened and produced some energy saving pilot projects[278]. With this the cooperation level between states increased and the knowledge trade has strengthened. Thus, Russia gained the opportunity of technology

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[273] European Commission, Trade, Countries, '*Russia'*,<http://ec.europa.eu/trade/creating-opportunities/bilateral-relations/countries/russia/>, (accessed on 10 April 2012)

[274] European Commission, *EU-Russia Energy Dialogue: The First Ten Years 2000-2010*, Brussels: European Commission Directorate-General for Energy, 2011
European Commission, Market Observatory for Energy, March 2010, Country File: Russia, p.2

[275] European Commission, *EU-Russia Energy Dialogue: The First Ten Years 2000-2010*, Brussels: European Commission Directorate-General for Energy, 2011
European Commission, Market Observatory for Energy, March 2010, Country File: Russia, p.3
[276] *Ibid*., p.8

[277] European Commission, Energy, External Dimension, EU-Russia Energy Dialogue, <http://ec.europa.eu/energy/international/russia/dialogue/dialogue_en.htm>, (accessed on 10 April 2012)

[278] Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011 ,p.49

transfers from Europe and with the European investments it gained the opportunity to modernize its infrastructure and economy[279].

Furthermore in 2000, Europe acknowledges its increasing energy dependence to Russian hydrocarbons and published the so called 'Green Paper'. The problems with the energy security supply were first mentioned in this Green Paper on Security of Energy Supply by European Commission[280]. In this paper the European Commission bring their concerns about the energy security. It points out that after the economic recession in the Union caused raise in the oil prices and revealed the vulnerability of the Union to energy security and that is why a long term strategy for energy supply security must be taken immediately for guarantying the

> "[…]*well-being of its citizens and the proper functioning of the economy, the uninterrupted physical availability of energy products on the market, at a price which is affordable for all consumers (private and industrial), while respecting environmental concerns and looking towards sustainable development, as enshrined in Articles 2 and 6 of the Treaty on European Union*."[281].

In 2000 as the European Commission states in the Green Paper, the dependency to Russian natural gas was around 40%[282]. But the aim in this paper is not to minimize the dependence, rather decrease the risk that dependency brings by balancing the share of the energy supply sources[283]. In the Green paper EU stated that Russia, Norway, Algeria, Iran and Turkmenistan will be the providers of hydrocarbon resources for EU in the future. Nevertheless, they accepted the fact that the dependency to Russian natural gas will rise rapidly and Russia will be the primary energy supplier country to EU[284]. With this Green Paper, the energy efficiency becomes one of the

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[279] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009, p.161

[280] Checchi, Arianna and Behrens, Arno and Egenhofer, Christian. (2009) *Long-Term Energy Security Risks for Europe: A Sector-Specific Approach. CEPS Working Document No. 309, 29 January 2009*, p. 5

[281] European Commission (2000), Towards a European Strategy for the Security of Energy Supply, Green Paper, COM(2000) 769 final, Brussels., p. 2-3
[282] *Ibid.*
[283] *Ibid*.
[284] *Ibid*., p.44

important issues in the EC's agenda and created the fundamentals of the European Commissions' energy policy.

However, although the main intention of this Green paper was to unfurl the energy dependency course of EU, in this paper EC stated that "*The European Union does not yet have all the means to change the international market*."[285]. As I stated earlier, this means that the EU started to concede the fact that Russia will be the permanent supplier of EU for a long time. On 31 May 2003 St. Petersburg Summit, Russia and EU agreed to strengthen their cooperation with four 'common spaces'[286]. They were; The Common Economic Space, The Common Space of Freedom, Security and Justice, The Common Space of External Security and The Common Space of Research and Education[287]. The aim for creating those common spaces is to deal with all areas of cooperation and increase the efficiency in all those cooperation areas especially in the energy field[288]. Especially the energy field is an important initiative in this common spaces agreement. In this context, for the protection of the investments in the energy matters and improving the investment environment these common spaces carries great importance.

Thereafter, the Europe started get more gas and oil supplies from Russia, and after the 2004 extension of European Union, with the entrance of post-Soviet States into the EU membership, EU has become more connected to Russia because of the Soviet period bounds in the economies of these Post Soviet countries to Russia especially in energy[289]. This is also the start of mutual dependence of EU-Russia

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[285] European Commission (2000), Towards a European Strategy for the Security of Energy Supply, Green Paper, COM(2000) 769 final, Brussels, p.44

[286] European Union, External Action, EU-Russia Common Spaces, <http://eeas.europa.eu/russia/common_spaces/index_en.htm>, (accessed on 10 April 2012)
[287] *Ibid.*

[288] Gusev, Alexander. '*Energy Relations Between The European Union and Russia: contend, problems, prospects'*, Diplôme des Hautes Etudes Européennes et Internationales Année universitaire 2007/2008, p.14

[289] Aalto, Pami. 'European Perspectives for Managing Dependencies', der. Jeronim Perovic, Robert W. Ortung ve Andreas Wenger, Russian Energy Power and Foreign Relations, Routledge Press, 2009p.159

economic zones. On the other hand, the relations between European Union and Russia have not advanced to an easier ground with the 2004 mass entry of the central and east European states to EU[290]. Most of these states were in the Russian sphere of influence and Russia wants to keep it that way. These Post Soviet states applied to EU as a shelter from Russian influence. Many of them still carry an anti-Russian behavior like a flag that reminds them and the world their Soviet past. What EU done in order to cover the post-Soviet states in energy relations is that, they created the Energy Community in 2005 and prepared the countries for the European energy market principles for eventual EU membership[291].

To create a stage to discuss these energy mattes with member states and the neighboring states since they have importance in transporting energy and security, EU unveiled European Neighborhood Policy on 2004. This Neighborhood Policy intends to create conditions for cooperation with the neighboring countries of EU by requiring changes in their legislation to level them in line with EU rules and regulations[292]. Also by doing this they will be able to familiarize the energy markets to each other. In the light of this European Neighborhood Policy, the Baku Initiative created the grounds of relationship between EU and the Black Sea and Caspian countries in cooperating in the energy matters[293]. However Russia rejected to participate in the European Neighborhood Policy "*perceiving a reduction in status to that of less important states*"[294]. The Energy Community treaty was signed on October 2005 with the aim to

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[290]Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.91
[291] *Ibid*., p.85

[292] Finon, Dominique. '*The EU foreign gas policy of transit corridors: autopsy of the stillborn Nabucco project*', OPEC Energy Review, 2011, Organization of the Petroleum Exporting Countries, Blackwell Publishing Ltd, USA., p.50
[293] *Ibid*.

[294]Wood, Steve. *'Energy Security, Normative Dilemmas and Institutional Camouflage: Europe's Pragmatism'*, Politics & Policy, Volume 37, No. 3 (2009), Wiley Periodicals Inc.., p.618

create a single energy market to consolidate energy relations with neighboring countries[295].

On November 2007 in the World Energy Congress Paolo Scaroni stated that "*Europe managed to carry on sleep walking into excessive dependence on imported gas for any years before any alarm bells rang.*"[296]. What he suggests on the congress is; because EU is stuck into small number of gas suppliers, this is where he calls 'sleepwalking while doing such mistake', EU started to need fine-tuning in its relationships with supplier countries, especially with Russia. The member states begun to re-think the energy matters with Russia and acknowledge that the energy started to become the element of individual national security and also an important part of EU's Common Foreign and Security Policy[297]. Since they are now dependent on Russia, it is better to create a cooperative relationship with Russia in a safeguarded environment. This forced EU to recognize Russia's geopolitical and military power on member states energy needs[298].

As I stated earlier, the member states of European Union left in charge of their national energy decisions and taxation as their national prerogative. In the draft of Lisbon Treaty, has a part where it says the treaty "*shall not affect a member state's right to determine the conditions for exploiting its energy resources, its choice between*

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[295] Finon, Dominique. '*The EU foreign gas policy of transit corridors: autopsy of the stillborn Nabucco project*', OPEC Energy Review, 2011, Organization of the Petroleum Exporting Countries, Blackwell Publishing Ltd, USA., p.50

[296] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.79

[297]Belkin, Paul. "*The European Union's Energy Security Challenges*," CRS Report for Congress , 30 January 2008,< http://www.fas.org/sgp/crs/row/RL33636.pdf >, (accessed on 28 October 2011), p.CRS 25

[298] Wood, Steve. *'Energy Security, Normative Dilemmas and Institutional Camouflage: Europe's Pragmatism'*, Politics & Policy, Volume 37, No. 3 (2009), Wiley Periodicals Inc.
, p.618

different energy sources and the general structure of its energy supply"[299]. This power can be used to put pressure on near-abroad neighbors at the times that Moscow needs them to comply with the Russian policies[300]. Thus, Russia in that concept has a negative report. Russia used its hydrocarbon resources as a power to punish the former Soviet republics frequently, especially in the 2000s[301]. According to a senior EU Commission official "*as long as each member state is responsible for its own energy mix, the Russians are quite correct to address each country bilaterally*"[302]. This is what the Russia foresees before. As I stated earlier, with not ratifying the ECT, Russia wants to carry out bilateral relations in the energy matters with EU so that they will sign energy agreements in a more beneficial way that without collective regulations in EU, with each deal it is easy for Russia to maximize their profit.

The mile stone for the Europe in energy security is the first natural gas dispute between Russia and Ukraine in 2006. Before the collapse of the Soviet Union, the energy transport was never become as a problem to the land-lacked Russia[303]. All of their oil and gas transit routes were passed through Soviet countries such as Ukraine, Belarus, Azerbaijan, Kazakhstan and Turkmenistan. The situation changed after the collapse of the Soviet Union, the energy problems of Ukraine and Russia started to disturb the relationship between these two countries. Russia lost its power over the transit routes for energy exports. Also they lost some of their political concessions. They started to decrease the subsidized prices to those former Soviet republics[304]. Moscow's influence over these countries was diminishing and Moscow started to use these price changes according to its political interest in these countries and this

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[299]Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.89

[300] Tarasov, J.D. Aleksei. '*The making of empires: Russia's gas-exporting pipelines v Nabucco*', Journal of World Energy, Law & Business; Mar2011, Vol. 4 Issue 1, p.78

[301] Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011 ,p.41

[302]Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.81
[303] *Ibid*.., p.96
[304] *Ibid*.

behavior of Russia created problems for the transit countries and the supplied countries[305]. Therefore, Russia and Ukraine have been struggling with difficult gas relations[306].

Ukraine continued to purchase natural gas from Russian firms below the market prices after the collapse of the Soviet Union[307]. From time to time at early 1990s these Russian firms cut off the natural gas flow to Ukraine because of some depth problems of unpaid energy prices by Ukraine[308]. However after the 2005 elections of Ukraine, Russia becomes aggressive. When Ukraine started to pursue more Europeanized politics and create a balance with its relations with West, their relations with Russia started to crack.

In 2004 Ukraine Presidential election there were two strong candidates who are Viktor Yanukovych and Viktor Yushchenko. The elections of 2004 concluded with the victory of Viktor Yanukovych[309]. But due to the alleged election fraud and the protests which were lead under the leadership of Viktor Yushchenko, the 2004 elections called off and after, this event was called 'The Orange Revolution'[310].Another election took place in 2005 and from that Viktor Yushchenko was come out victorious[311]. The new president Yushchenko was not the favorable candidate of Russia because his pro-Western ideas. His ideas contains, Ukraine should conduct western kind of serious

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[305] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.96

[306]Chyong, ChiKong. "*The Economics of the South Stream pipeline in the context of Russo-Ukrainian gas bargaining*", <http://www.usaee.org/usaee2011/submissions/OnlineProceedings/Chyong_The Economics of the South Stream pipeline in the context of Russo – Ukrainian gas bagaining.pdf>, (accessed on 9 November 2011) ,p.1

[307] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.7
[308] *Ibid*.
[309] *Ibid*.

[310] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.7
[311] *Ibid*.

reforms promptly so that they will become eligible to join NATO and European Union as soon as possible[312].Because Ukraine has a great importance in transporting the Russian hydrocarbon goods to the Europe, it carries great importance for Russia. Losing their influence on Ukraine will create difficulties in transporting the Russian goods to the European markets.

Russian leaders watched the rise of Yushchenko with great concern because their favorable candidate was Yanukovych, who they strongly backed up. Not long after Yushchenko took office, Russia increased the natural gas price that they transmit to Ukraine[313]. The price increase was so sharp that Russia's demand rose from $50 per thousand cubic meters to $230 per tcm[314]. When Ukraine rejected this demand of Russia, on 31 December, 2006Russia cut the natural gas flow to Ukraine[315]. So Ukraine obliged to divert the Russian gas in their own use for Europe[316].Who suffered most was here are European consumers so after the great protests from the European costumers, Russia started to deliver gas again on January 2[317]. On January 4, they reached an agreement with Ukraine and Ukraine started to purchase gas nearly at market prices[318].

After this oppressive behavior of Russia on Ukraine, Russia lost its prestige in the international community again with the Russo-Georgian War in 2008. The security thread discussion of the European Union about the Russia's energy power, further strengthened with the Georgian Conflict of Russia[319]. Many International regimes couldn't do anything about implementing protective measures to prevent human catastrophes in the war[320]. This Russia-Georgian War affected EU deeply because they

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[312] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.7
[313] *Ibid*.
[314] *Ibid*.
[315] *Ibid*.
[316] *Ibid*.
[317]*Ibid*., p.8
[318] *Ibid*.

[319] Tarasov, J.D. Aleksei. '*The making of empires: Russia's gas-exporting pipelines v Nabucco*', Journal of World Energy, Law & Business; Mar2011, Vol. 4 Issue 1, p.83
[320] *Ibid*.

find out that, the only energy corridor that provides Caspian oil and gas to European countries without Russian interruption, was under pressure of Russian military[321]. It has led to temporary cuts in oil and gas shipments. Furthermore, this environment ruined the unproblematic and comfortable relations between the big energy companies from both sides, Russia and EU[322]. The replacement negotiation of Partnership and Cooperation Agreement of 1997 was briefly suspended on 2008 by EU as a reaction to the Georgian conflict[323]. In addition to these consequences of the Russian-Georgian War, the foreign investors which are concerned about these political situations with Ukraine and Georgia caused a 70% fall in the Russian stock market in the second half of the 2008[324]. These events simulated great concerns about Russian energy power in European countries. They started to get worried about the possibility of an exposure to blackmail from Russia[325].

The security of supply becomes a vital issue about the European council and it is important to develop crisis mechanisms as soon as possible to deal with possible temporary disruptions in energy supplies[326]. Yet after these crises and interruption of its energy resources, EU decided to change its reaction to the situation and created a new way to deal with this risk. EU decided to protect its members by creating an internal policy to limit the effects of these possible interruptions in energy and improve cooperation between these member states and European Commission to create a stable energy policy that will help decreasing the vulnerability of EU and its member states to

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[321] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.79
[322] *Ibid*., p.98
[323] *Ibid*., p.100

[324] *Russia Energy Sector Handbook Volume 1: Strategic Information and Important Developments, International Business Publications, Washington, 2010.*, 2010, p.16

[325] Wood, Steve. *'Energy Security, Normative Dilemmas and Institutional Camouflage: Europe's Pragmatism'*, Politics & Policy, Volume 37, No. 3 (2009), Wiley Periodicals Inc., p.619

[326] Council of The European Union, Brussels European Council 15 and 16 October 2008, Presidency Conclusions,14368/08, p.7

Russian monopoly in energy matters[327]. On 2008, European Union creates a report about energy security encouraging the member countries and institutions to diversify their energy sources and supply routes[328]. And on 13 November 2008 EU Security and Solidarity Action Plan was published by EU Commission[329]. With this action plan EU made its position clear that they want more independence in the energy matters from Russia[330]. With this action plan the EU Commission also wanted to develop energy independence provisions with the non-member producer countries to create a crisis response mechanism and create a directive of gas supply security[331]. In addition to these, EU Commission also aims to develop the energy infrastructure, especially the Trans-European energy transport network[332]. Another notable development from this action plan is the creation of the outline of the Southern Corridor[333]. This corridor would provide the Caspian and Middle Eastern sources and meet the future energy demands of the EU member countries[334].Because when we look at the dependence rates of the EU in 2008 we can see that 12 member countries has more that %60 dependence on Russian natural gas imports (Table1).

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[327] Finon, Dominique. '*The EU foreign gas policy of transit corridors: autopsy of the stillborn Nabucco project*', OPEC Energy Review, 2011, Organization of the Petroleum Exporting Countries, Blackwell Publishing Ltd, USA., p.50

[328] Council of The European Union, Brussels European Council 15 and 16 October 2008, Presidency Conclusions,14368/08, p.7

[329] Pflüger, Friedbert. '*The Southern Gas Corridor: Reaching the Home Stretch*', <http://www.europeanenergyreview.eu/site/pagina.php?id=3455&pr>, (accessed on 9 May 2012)
[330] *Ibid*.

[331] Checchi, Arianna and Behrens, Arno and Egenhofer, Christian. (2009) *Long-Term Energy Security Risks for Europe: A Sector-Specific Approach. CEPS Working Document No. 309, 29 January 2009*, p. 39

[332] Eurussia Centre, '*EU-Russia Energy Relations*', The EU-Russia Centre Review, Issue 9, June 2009, p. 42

[333] Pflüger, Friedbert. '*The Southern Gas Corridor: Reaching the Home Stretch*', <http://www.europeanenergyreview.eu/site/pagina.php?id=3455&pr>, (accessed on 9 May 2012)

[334] Mammad, Rufat Rustamov. '*A South Energy Corridor from the Caspian Region to Europe*', НАУЧНИ ТРУДОВЕ НА РУСЕНСКИЯ УНИВЕРСИТЕТ - 2010, Volume 49, Series 5.2, p.58

Table 1: Dependence of EU countries on Russian Gas in 2008

Country	Import	Consumption
Austria	66.7	77.5
Belgium	5.2	5.2
Czech Republic	78.3	86.0
Denmark	0.0	0.0
Finland	100.0	100.0
France	14.3	14.1
Germany	44.3	42.5
Greece	66.9	66.9
Hungary	76.9	66.9
Ireland	0.0	0.0
Italy	29.0	26.2
Luxembourg	0.0	0.0
Netherlands	0.0	0.0
Poland	69.5	47.0
Portugal	0.0	0.0
Slovak Republic	100.0	99.3
Spain	0.0	0.0
Sweden	0.0	0.0
UK	0.0	0.0
Slovenia	51.3	51.3
Bulgaria	100.0	98.7
Romania	99.2	30.7
Estonia	100.0	100.0
Latvia	100.0	100.0
Lithuania	100.0	100.0

Source: Vitaly Protasov, EU-Russia Gas Relations: a View From Both Sides, International Association for Energy Economics, Fourth Quarter, 2010, p.28

After these events, the 2nd gas war between Russia and Ukraine, which Russia stopped giving gas to Ukraine for two weeks, occurred on January 2009[335]. The 2004 gas dispute between Russia-Belarus, the 2006 Russia-Ukraine dispute and many similar

[335]Chyong, ChiKong. "*The Economics of the South Stream pipeline in the context of Russo-Ukrainian gas bargaining*", <http://www.usaee.org/usaee2011/submissions/OnlineProceedings/Chyong_The Economics of the South Stream pipeline in the context of Russo – Ukrainian gas bagaining.pdf>, (accessed on 9 November 2011) ,p.1

cut offs during the 90s were limited to a few days[336]. However this two week curt off was not expected and EU was severely affected by it. In this interruption, 20% of the EU's gas supply was cut[337]. Many European and Balkan countries were affected by these disruptions of gas dispute between Russia and Ukraine. This gas dispute between Ukraine caused cut offs in the eighteen European countries, which are Austria, Bosnia, Bulgaria, Croatia, Czech Republic, France, Germany, Greece, Hungary, Italy, Macedonia, Moldova, Poland, Serbia, Slovakia, Slovenia, and Turkey[338]. The 80% of the EU's natural gas supply transported from the Ukrainian route[339], so given this situation, created a negative perception of Russia and increased the EU's concern of Russia's reliability as a supplier *"especially in the context of opposing gas pipeline projects bypassing its territory."*[340]. Also with this event, EU saw that the transit risks of natural gas supplies carries also political risk factors[341].

However with the rapidly developing Europe-Russia energy and trade dialogue a mutual dependence in the energy field occurred and this mutual dependency strengthens the energy dialogue between Russia and EU. Unfortunately after 2006, the view that the energy resources of Russia have been used as a tool for creating pressure on EU diplomacy got stronger. This caused worsening of the Russia-EU energy relations and put EU into search for other supplier countries and routes for energy.

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[336] Checchi, Arianna and Behrens, Arno and Egenhofer, Christian. (2009) *Long-Term Energy Security Risks for Europe: A Sector-Specific Approach. CEPS Working Document No. 309, 29 January 2009,* p. 19

[337] Eurussia Centre, '*EU-Russia Energy Relations*', The EU-Russia Centre Review, Issue 9, June 2009, p. 30

[338] Tarasov, J.D. Aleksei. '*The making of empires: Russia's gas-exporting pipelines v Nabucco*', Journal of World Energy, Law & Business; Mar2011, Vol. 4 Issue 1, p.78

[339] Baran, Zeyno. '*EU Energy Security: Time to End Russian Leverage*', The Washington Quarterly, Volume 30, Number 4, Autumn 2007, p. 142

[340] Checchi, Arianna and Behrens, Arno and Egenhofer, Christian. (2009) *Long-Term Energy Security Risks for Europe: A Sector-Specific Approach. CEPS Working Document No. 309, 29 January 2009,* p. 19

[341] F. Babonneau, A. Kanudia, M. Labriet, R. Loulou, and J. Vial, '*Energy Security: A Robust Optimization Approach to Design a Robust European Energy Supply'*, TIAM-WORLD, , Springer Science+Business Media B.V., Environ Model Assess (2012) 17:19–37, p. 20

Furthermore, the energy security policies of EU gained an anti-Russia dimension and accelerated the Southern Gas Corridor project.

3.4. The Future Predictions on EU's Russian Natural Gas Dependency:

The energy need of the European Union continues to grow. Also, the dependence to Russia increases correspondingly with that need of energy. As I mentioned in the 2nd chapter, while the member states differ in dependency levels on Russian gas supplies, the dependency in the Baltic States and Central Europe shows a greater increase. When we look at the Figure 4, we can see that according to the 2010 statistics, Europe along with Eurasia has the highest data on natural gas pipeline exports and imports and it will continue to rise with the declining of the resources in the European Union territory. Its import rate is higher than the combined North and Latin America. It has been observed that the energy consumption in the EU by 2030 will increase 15%. Also the natural gas imports of EU will increase nearly 75% by 2015[342]. The current import capacity of the European Union seems enough by 2020, but for further increase in demand EU has to secure additional gas supplies by 2015[343].

[342] Gazprom, Booklet, '*New gas supply routes for Europe*',< http://south-stream.info/fileadmin/pixs/bukleti/Serb_razv_1.pdf>, (accessed on 15 May 2012)

[343] Honore, Anouk. '*Southern Energy Corridor Project vs. Economic Recession and Natural Gas Demand in Europe'*, The Oxford Institute for Energy Studies, CERI – Science-Po, Paris, May 2011, p.35,36

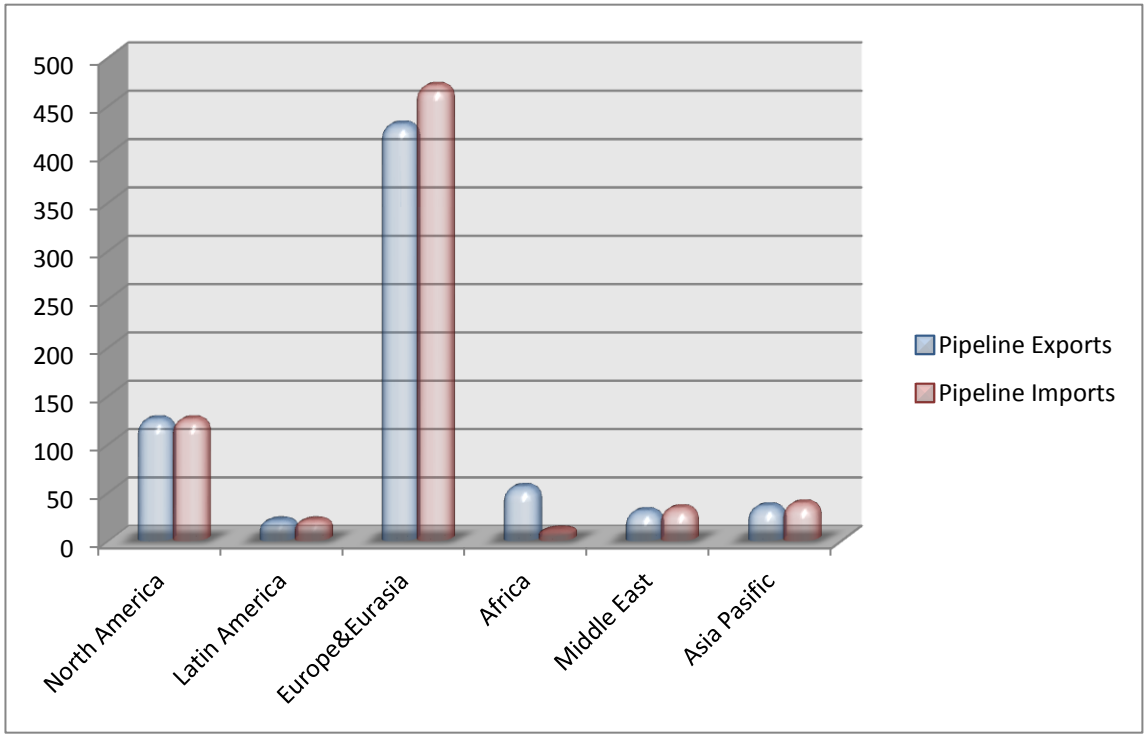

Figure 4: World Natural Gas Trade – Pipeline Exports and Imports 2010

Source: BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.29

Table 2: European Gas Balance: 2009 (Bcm)

DEMAND	539
PRODUCTION	290
IMPORTS	430 (84% pipeline, 16% LNG)
LNG	68 (31% Algeria, 29% Qatar)
PIPELINE	361 (53% intra- 47% extra- Europe)
% OF TOTAL IMPORTS:	
NETHERLANDS	11%
NORWAY	23%
ALGERIA	12%
RUSSIA (CIS)	32%

Source: Honore, Anouk. '*Southern Energy Corridor Project vs. Economic Recession and Natural Gas Demand in Europe'*, The Oxford Institute for Energy Studies, CERI – Science-Po, Paris, May 2011, p.23

In Table 2, we can see that in 2009 EU has imported %77 of its gas demand. In this 77% of imports the share for Russian gas is %31. This means that nearly half of the natural gas imports of EU came from Russia. If we consider this numbers will goes up in the following years, Russia will raise as the single most important energy supplier of the EU because of its rich hydrocarbon resources. Also because of the members that came with the EU's 2004 enlargement, creates big Russian energy leverage on Europe. This makes the diversification of supplies a key goal for EU. As David Buchan states *"Diversity of energy route, as well as source, is a guiding principle of energy security*"[344]. Based on this idea EU searched for new sources. As I mentioned earlier EU set its eyes on the Black Sea, Middle East and Caspian region for diversification.

However these possible supply countries of Black Sea, Middle East and Caspian have political problems in their interior affairs. This makes the source precarious to EU. This will create a hazardous environment for one of the most important notions of European energy security; supply security. So that by choosing one of the countries in Black Sea, Middle East or Caspian region Europe will choose supply diversification over supply security which is not beneficial enough for EU when we look at the Table 4.

Table 3: Import dependency in the EU-25 in the high renewable case

	2000	*2010*	*2020*	*2030*
Solid fuels	30.8%	43.2%	51.1%	50.2%
Liquid fuels	76.4%	83.3%	92.3%	93.3%
Natural gas	49.6%	61.4%	79.7%	83.6%
TOTAL	**47.2%**	**52.1%**	**58.2%**	**57.8%**

Source: Checchi, Arianna and Behrens, Arno and Egenhofer, Christian. (2009) *Long-Term Energy Security Risks for Europe: A Sector-Specific Approach. CEPS Working Document No. 309, 29 January 2009*, p. 33

[344] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.101

In Table 4, it is clear that the natural gas for Europe will be a crucial energy source within a decade and since they don't produce enough natural gas, their import will also grow. In 2030 their dependency level on imports will be 83.6 % in a high renewable scenario. In that case they needed a reliable supplier. While EU having doubts of Russia's place as a reliable supplier of natural gas, I believe Russia has shown their reliability in Cold War times to Europe. Since 2006; Germany, Austria, Italy and most European and Balkan countries have renegotiated with Gazprom to extend their contracts for another 20-30 years[345]. However the transit country issues and the Georgian war have badly affected this reputation of Russia. However, the South Stream project has no transit country till it reaches to the European Union territories. So that South Stream project creates a security of supply for Europe with its large capacity and reduces the transit country risks.

Also is Europe considers getting natural gas from Middle East, the production numbers in Figure 10 will also demonstrate that Russia is in an advantageous position than Middle East in supply security. This is because continuous and massive production will bring strong supply security by ensuring that this resource has less likely to have cut offs due to the low resource levels.

[345]Deak, Andras, 2009, "Assessing Russian Commitments to the 2015 South Stream Deadline", 12-11-2011 from http://www.isac-fund.org/download/06e-Dr.%20Andras%20Deak%20-%20Assessing%20Russian%20Commitments.pdf, p.4

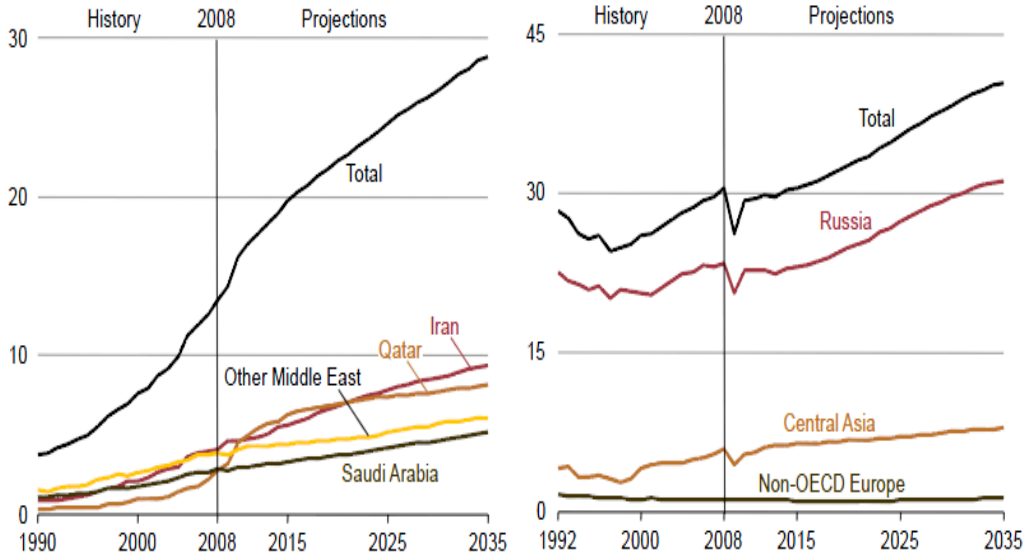

Figure 5: Middle East Natural Gas Production, 1990-2035 vs. Non –OECD Europe and Eurasia Natural Gas Production, 1992- 2035 (tcf)

Source: U.S. Energy Information Administration, International Energy Outlook 2011, September 2011, DOE/EIA-0484(2011), p.54

If we take look at the Figure 10, we can see that the proportion of natural gas production of Russia is much higher than the Middle East production and it continues to increase. So that if Europe decides to diversify their energy import route from Russia to Middle East they need to invest much higher than they need to invest Russia. In addition to that, in Middle East there is permanent vigorous political instability. The gas that they will buy from these countries will lost the notion of 'secure supply' because its risk to be cut off is higher that Russia.

CHAPTER 4

EU'S SOUTHERN GAS CORRIDOR AND ITS SUPPLY PROBLEM

With the gas dispute between Russia and Ukraine on 2006, Russia briefly cut the gas supplies to Ukraine over a pricing issue. Due to these cuts, European countries started to question the role of Russia in the energy sector of European Union[346].

4.1. The Formation of the Southern Gas Corridor:

The increasing dominance of Russia in the European energy sector and the possibility of Russia abusing this power, for example increasing the prices and interruptions of energy due to political intentions, creates disturbance among European countries[347]. Some academicians believe that if Russia constructs both Nord Stream and South Stream, it would manage to have the monopoly on gas pipelines that are supplying European Union. Thus, this will cause European countries to find other available supply routes that are competing with the Russian gas routes. However, it is a fact that Russia "*would solely be in power to grant other producing countries access to the European routes*"[348]. As I stated before in the 2nd Chapter, the energy market leaders of EU, for example Italy and Germany loyal to Russia in energy matters because of their political and economic proximity. So that any action that will affect their energy and politic matters concerning Russia, they will use their power above the other member states.

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[346] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.7

[347] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.103

[348] Tarasov, J.D. Aleksei. '*The making of empires: Russia's gas-exporting pipelines v Nabucco*', Journal of World Energy, Law & Business; Mar2011, Vol. 4 Issue 1, p.82

Besides, due to the post-soviet EU member states and their heavy dependency to Russia in energy matters shackle EC to act against this dependency. For example Aleksei Tarasov states that "*Political strategists fear that Western governments heavily dependent on Russian supplies would be prone to exceeding to Russia various non-economic concessions at the request of the Kremlin.*"[349]. Since Moscow being the only authority to negotiate with, this is a disadvantageous situation for the partner countries because they will not have the secure environment of multilateral framework and they are bind only with some bilateral commitments and political promises[350].

Because of these political and economic concerns about the energy security of getting Russian gas supplies and questions about whether Russia will use its energy monopoly power, European policy makers created a new energy policy called Southern Energy Corridor[351]. This policy was proposed in the European Commission's Communication Second Strategic Energy Review – An EU Energy Security and Solidarity Action Plan on November 11, 2008[352]. According to the proposal, a southern gas corridor is a must and carries a high priority in the mean of European energy security and the connections about pipeline building and supply of gas should be done quickly with the selected partner countries which are Azerbaijan and Turkmenistan,

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[349] Tarasov, J.D. Aleksei. '*The making of empires: Russia's gas-exporting pipelines v Nabucco*', Journal of World Energy, Law & Business; Mar2011, Vol. 4 Issue 1, p.82

[350]Deak, Andras, 2009, "Assessing Russian Commitments to the 2015 South Stream Deadline", 12-11-2011 from http://www.isac-fund.org/download/06e-Dr.%20Andras%20Deak%20-%20Assessing%20Russian%20Commitments.pdf, p.5

[351] Council of The European Union, Brussels European Council 15 and 16 October 2008, Presidency Conclusions,14368/08, p.4

[352] Commission of The European Communities, The European Economic and Social Committee and The Committee of The Regions, Second Strategic Energy Review, '*An EU Energy Security and Solidarity Action Plan*', Brussels, November 11,2008

Iraq and Mashreq and also apart from these countries they are planning to get supplies from Uzbekistan and Iran if the political conditions were available[353].

As a continuation of the Second Strategic Energy Review's conclusions, on 8 May, 2009 Prague Summit the Southern corridor was the main agenda of the European Commission. To show their support to Southern Gas Corridor, Kazakhstan, Turkmenistan Uzbekistan., Azerbaijan, Georgia, Turkey and representatives from European Union meet in Prague and published the Prague Summit[354]. In this deceleration, EU created a partnership between Central Asian and Caspian countries and took the first step towards the southern energy corridor with possible supplying countries. To strengthen their stance on this issue a clear definition was made for Southern Corridor in this summit. *"[…]a modern Silk Road interconnecting countries and people from different regions and establishing the adequate framework, necessary for encouraging trade, multidirectional exchange of knowhow, technologies and experience."*[355].

This partnership has strategic importance for European Union in the energy matters because it creates an economic and political bond with the energy rich countries of Central Asia and Caspian region with EU, which will play a great role in the energy dependence of EU. With these ties the energy community of EU will extend and create a more secure energy market. Also by creating these connections, EU plans to create an adaptation process of energy markets in order to ensure their compliance with EU energy markets.

In this summit the acceleration of the Southern Gas Corridor projects gained vital importance. But in order to provide the necessary speed to the project they need to

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[353] Commission of The European Communities, The European Economic and Social Committee and The Committee of The Regions, Second Strategic Energy Review, '*An EU Energy Security and Solidarity Action Plan*', Brussels, November 11,2008

[354] European Council, The Declaration - Prague Summit, Southern Corridor, 8 May 2009,<http://www.consilium.europa.eu/uedocs/cms_data/docs/pressdata/en/misc/107598.pdf>, (accessed on 15 May 2012)

[355] *Ibid.*

find reliable sources that will supply these projects in the Southern Gas Corridor in most efficient way. Turkmenistan, Azerbaijan, Egypt, Iran and Iraq were the potential suppliers of the Southern gas corridor. The proven natural gas reserves in Azerbaijan, Egypt, Iran and Iraq respectively;1.3 tcm, 2.2 tcm, 29.6 tcm, 3.2 tcm[356]. Iran and Iraq were not the popular sources because of the political disorders. Egypt on the other hand, currently exports LNG[357]. Azerbaijan in this situation became the perfect choice. The Caspian Sea shelters nearly the 90% of the proven reserves of Azerbaijan[358].

Azerbaijan has gas resources about 1trillion m^3 and it is the largest discovery of BP[359].The Shahs Deniz Field of Azerbaijan is located in the southern part of the Caspian Sea, near Baku. The field was conceived of 4 stages[360]. Shah Deniz Field 1 has already supplying the South Caucasus Pipeline[361] . Production sharing agreement was signed by; BP (25.5%), Statoil (25.5%), State Oil Company of the Azerbaijan, TOTAL (10.0%), Lukoil (10.0%), NICO (10.0%), TPAO (9.0%) and (SOCAR 10.0%) on 4 June 1996[362]. It has started operations in 2006 and has the capacity of 8,8 bcm /year[363].

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[356] BP, BP Statistical Review of World Energy 2010, BP Statistical Reviewof World Energy, June 2011, BP, London, UK, < http://bp.com/statisticalreview.>, (accessed on 30 May 2012), p.20

[357] Mavrakis, Dimitrios, Fotios Thomaidis, and Ioannis Ntroukas. "*An assessment of the natural gas supply potential of the south energy corridor from the Caspian Region to the EU*." Energy Policy 34 (September 2006), p. 1671

[358] Ibid., p.1672

[359] BP, BP Caspian, Shah Deniz, <http://www.bp.com/sectiongenericarticle.do?categoryId=9006668&contentId=7015092>, (accessed on 9 May 2012)

[360] Mavrakis, Dimitrios, Fotios Thomaidis, and Ioannis Ntroukas. "*An assessment of the natural gas supply potential of the south energy corridor from the Caspian Region to the EU*." Energy Policy 34 (September 2006), p. 1672

[361] BP, Shah Deniz 2 Infrastructure Project, Environmental & Socio-Economic Impact Assessment, Chapter 1, <http://www.bp.com/liveassets/bp_internet/bp_caspian/bp_caspian_en/STAGING/local_assets/downloads_pdfs/s/SD_ESIA_01_Introduction_D2.pdf>, (accessed on 9 May 2012)

[362] *Ibid*.

[363] BP, BP Caspian, Shah Deniz, <http://www.bp.com/sectiongenericarticle.do?categoryId=9006668&contentId=7015092>, (accessed on 9 May 2012)

The second stage was discovered by BP in November 2007[364]. To supply these projects with gas on 13 January 2011 EU signed a Joint Declaration with Azerbaijan about the Shah Deniz 2 field to be the supplier[365]. The field plays a big role in the Azerbaijan's political image because with being the primary gas supplying country to Europe, Azerbaijan will gain many opportunities in world political arena. Most importantly, it will provide great opportunities to Azerbaijan, especially in the Nagorno Karabakh problem.

With the new Shah Deniz Field 2, it is expected that the production of gas will be 16 bcm over of the South Caucasus Pipeline's capacity[366]. The start of the first gas exports expected to be in 2017[367]. The Azerbaijani government and Shah Deniz consortium created criteria for the pipeline projects that wanted to export the gas in Shah Deniz 2 to Europe and the consortium entered the decision making process[368]. The final decision of the Azerbaijan was expected to be declared in the mid-2013[369]. The important question here is that with which project European Union can ultimately secure the gas supplies.

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[364] Bilgin, Mert. '*Geo-economics of European Gas Security: Trade, Geography and International Politics*', Insight Turkey, Vol.12, No.4, 2010, p.194

[365] Pflüger, Friedbert. '*The Southern Gas Corridor: Reaching the Home Stretch*', <http://www.europeanenergyreview.eu/site/pagina.php?id=3455&pr>, (accessed on 9 May 2012)
[366] *Ibid*.
[367] *Ibid*.

[368]TAP, TAP Brochure, '*Why is TAP crucial to Europe's energy future?*', <http://www.trans-adriatic-pipeline.com/fileadmin/pdfs/brochures_2011/CD1900_TAP_bro_200x250_eng_f_sm.pdf>, (accessed on 9 May 2012), p.27

[369] Bloomberg Businessweek, *'Statoil Sees Shah Deniz Investment Decision in a Year's Time',<http://www.businessweek.com/news/2012-05-10/statoil-sees-shah-deniz-investment-decision-in-a-year-s-time*>, (accessed on 26 May 2012)

4.2. The Projects of the Southern Gas Corridor:

4.2.1. Trans-Adriatic Pipeline (TAP):

Figure 6: Trans-Adriatic Pipeline (TAP)

Source: TAP, Route, http://www.trans-adriatic-pipeline.com/tap-project/route/, (accessed on 3 May 2012)

Trans-Adriatic Pipeline (TAP) is a proposed natural gas pipeline project to "*transport gas via Greece and Albania and across the Adriatic Sea to southern Italy and further to Western Europe*" to carry the Caspian gas, respond to the concept on European Southern Corridor[370]. This project was proposed by the Swedish energy company EGL, on 2003[371]. The proposed route of this pipeline project starts from Greece, cross Albania through Adriatic Sea and ends in Southern Italy[372]. The total

[370] TAP, Concept,<http://www.trans-adriatic-pipeline.com/tap-project/concept/>, (accessed on 1 May 2012)

[371] EGL, History, 2003,<http://www.egl.eu/eglch/en/home/about/history.html>, (accessed on 1 May 2012)

[372]TAP, TAP Brochure, '*Why is TAP crucial to Europe's energy future?*', <http://www.trans-adriatic-pipeline.com/fileadmin/pdfs/brochures_2011/CD1900_TAP_bro_200x250_eng_f_sm.pdf>, (accessed on 9 May 2012), p.2

length of the pipeline will be 800 kilometers long and the offshore part will be 105 kilometers long and 810 meters of depth[373].

This pipeline will take natural gas from Azerbaijan's Shah Deniz 2 field[374]. The planned top capacity of the pipeline is 20 bcm annually[375]. The shareholders of this project are Swiss EGL (42.5%), Norwegian Statoil (42.5%) and German E.ON Ruhrgas (15%)[376]. It is the shortest pipeline project in the Southern Gas Corridor of Europe[377]. The expected cost of the project is 1, 5 billion euro[378]. According to the TAP External Affairs Director Michael Hoffmann, the financing will be provided by the shareholder companies[379]. This will make TAP the only project in the Southern Gas Corridor that doesn't need any EU subsidies and grants[380]. With this feature, TAP highly acclaimed by the EU.

The project carries importance in diverting the gas supply away from Russia, and proposed to create a more secure gas supply for Europe. Some natural gas storage

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[373] TAP, Technical, <http://www.trans-adriatic-pipeline.com/tap-project/key-features/technical/>, (accessed on 3 May 2012)

[374] TAP, TAP Brochure, '*Why is TAP crucial to Europe's energy future?*', <http://www.trans-adriatic-pipeline.com/fileadmin/pdfs/brochures_2011/CD1900_TAP_bro_200x250_eng_f_sm.pdf>, (accessed on 9 May 2012), p.2

[375] *Ibid.*

[376] TAP, About TAP AG Company, http://www.trans-adriatic-pipeline.com/about-us/tap-ag-company/, (accessed on May 1, 2012)

[377] Tungland, Kjetil. Turogue 2012, TAP's Corporate Presentation, Opening the Southern Gas Corridor, 22 March 2012, ANKARA, < http://www.turoge.com/2012/presentations/documents/D2S1-KjetilTungland-TAP.pdf>, (accessed on 5 May 2012), p.3

[378] Profazio, Umberto. '*Trans Adriatic Pipeline: economic advantages over the competitors but equal political risks*', PECOB Portal on Central Eastern and Balkan Europe by IECOB & AIS, Business Reports,<http://www.pecob.eu/flex/cm/pages/ServeBLOB.php/L/EN/IDPagina/2996>, (accessed on 3 May 2012)

[379] Yinanç Barçın. '*Trans-Adriatic Pipeline the cheapest, director says'*, Hürriyet Daily News, <http://www.hurriyetdailynews.com/default.aspx?pageid=438&n=trans-adriatic-pipeline-the-cheapest-director-says-2010-06-28>, (accessed on 4 May 2012)

[380] TAP, TAP Brochure, '*Why is TAP crucial to Europe's energy future?*', <http://www.trans-adriatic-pipeline.com/fileadmin/pdfs/brochures_2011/CD1900_TAP_bro_200x250_eng_f_sm.pdf>, (accessed on 9 May 2012) , p.12

facilities are planning to be built in Albania to further strengthen security of supply within the scope of this project[381]. Also this project is called as the 'missing link' which refers to the absence of a linkage between Greece and Italy in the energy infrastructure system of Europe[382]. The project is among the top priority projects according to the European Recovery Plan and considered as 'project of European Interest'[383].The feasibility study for the pipeline was concluded in 2005 and other technical and the environmental aspects of the project were completed in 2007[384]. The negotiations about the gas in the Azerbaijani Shah Deniz field are still in progress[385]. The construction of the pipeline was expected to be started in 2008 and go online in 2010[386]. However it has started the route refinement studies in the Northern Greece in November 2010[387] .

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[381] TAP, Concept,<http://www.trans-adriatic-pipeline.com/tap-project/concept/>, (accessed on 1 May 2012)

[382] Profazio, Umberto. '*Trans Adriatic Pipeline: economic advantages over the competitors but equal political risks*', PECOB Portal on Central Eastern and Balkan Europe by IECOB & AIS, Business Reports,<http://www.pecob.eu/flex/cm/pages/ServeBLOB.php/L/EN/IDPagina/2996>, (accessed on 3 May 2012)

[383] Herberth Smith, '*Italy'*, EER- The European Energy Handbook 2012, Herbert Smith LLP, London 2012, p.213

[384] EGL, Media, '*Natural gas pipeline through Adriatic achieves major milestone'*,<http://www.egl.eu/eglch/en/home/media/news/archive/2007/2007_03_13.html>, (accessed on 3 May 2012)

[385] Arıcıoğlu,Aydın. '*Boru hattı projelerinde tüm gözler Şahdeniz'e çevrildi*', <http://www.enerjidergisi.com/n-558-boru-hatti-projelerinde-tum-gozler-sahdenize-cevr.aspx>, (accessed on 4 May 2012)

[386] EGL, Media, '*Natural gas pipeline through Adriatic achieves major milestone'*,<http://www.egl.eu/eglch/en/home/media/news/archive/2007/2007_03_13.html>, (accessed on 3 May 2012)

[387] TAP, Press Releases, '*TAP Begins Route Refinement Study in Northern Greece*', <http://www.trans-adriatic-pipeline.com/news/press-releases/detail-view/article/60/>, (accessed on 9 May 2012)

Also the launching date is delayed to 2017[388]. Nevertheless this project seems to be the winner among the Southern Gas Corridor pipeline projects[389].

4.2.2. Turkey-Greece-Italy Interconnector (ITGI):

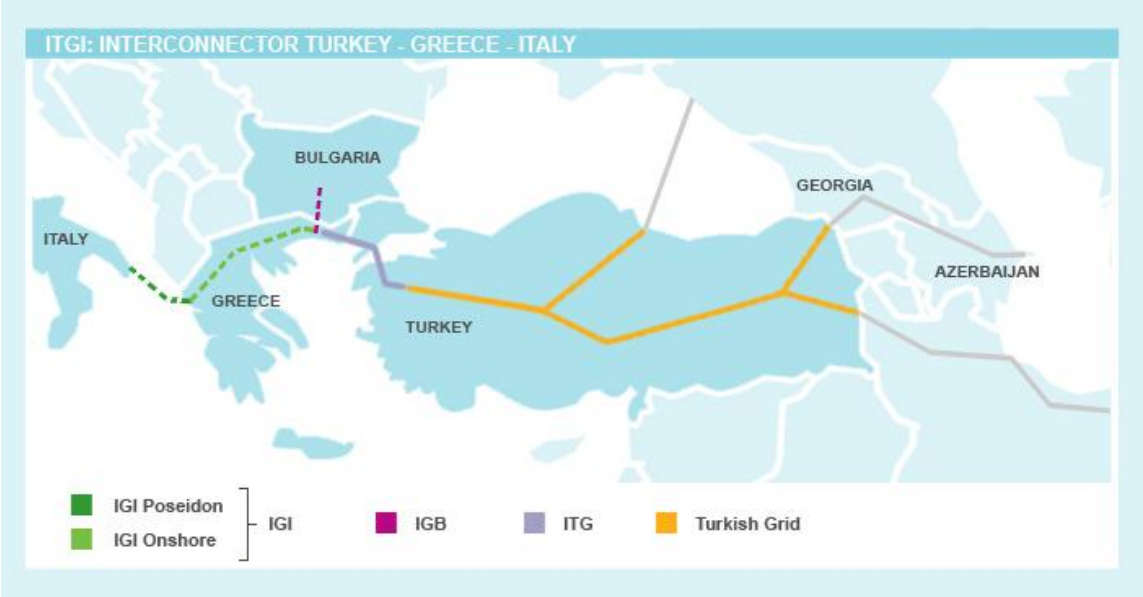

Figure 7: Turkey-Greece-Italy Interconnector (ITGI)

Source: EDISON, '*Gas Infrastructures'*, ITGI, <http://www.edison.it/en/company/gas-infrastructures/itgi.shtml>, (accessed on 5 May 2012)

ITGI gas pipeline is a proposed pipeline project which plans to bring gas from the Caspian Sea and the Middle East to Europe[390]. ITGI will use the existing pipelines in Turkey and Greece[391]. To complete the pipeline network there is a new section of

[388]TAP, TAP Brochure, '*Why is TAP crucial to Europe's energy future?*', <http://www.trans-adriatic-pipeline.com/fileadmin/pdfs/brochures_2011/CD1900_TAP_bro_200x250_eng_f_sm.pdf>, (accessed on 9 May 2012), p.2

[389] Pflüger, Friedbert. '*The Southern Gas Corridor: Reaching the Home Stretch*', <http://www.europeanenergyreview.eu/site/pagina.php?id=3455&pr>, (accessed on 9 May 2012)

[390] EDISON, '*Gas Infrastructures'*, ITGI, <http://www.edison.it/en/company/gas-infrastructures/itgi.shtml>, (accessed on 5 May 2012)

[391] EDISON, '*Opening the Southern Gas Corridor through ITGI pipeline*', <http://www.edison.it/media/ITGIpipeline.pdf>, (accessed on 5 May 2012)

pipeline that will connect Italy and Greece which is called the IGI- Interconnector Greece-Italy[392].This section of the ITGI will have the transport capacity of 9 bcm annually and it will be 800 kilometers long[393]. The IGI will have two sections; one is IGI Onshore and the other, IGI Poseidon, which will go under the Ionian Sea[394]. IGI Poseidon is a joint venture between Greek company DEPA and Italian EDISON[395].The offshore part of the IGI will be 200 kilometers long and depth of 1,380m[396]. Also there is a spur-line pipeline which goes from Greece to Bulgaria called the IGB pipeline which is planning to be 170 kilometers long and will transport 3 to 5 bcm per year[397]. In total this project will be 970 kilometers long and besides the new pipelines the existing Turkey-Greece and Turkish Grid pipeline systems will be renewed[398].

The Protocol of Intent of the ITGI was signed on December 2007 between Italy and Azerbaijan[399]. Then on April 2009 Greece and Bulgaria signed Memorandum of Understanding for the implementation of the IGB pipeline[400]. For the transit through Turkey, a memorandum of understanding was signed between Italian EDISON, Greek

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[392] EDISON, '*Gas Infrastructures'*, ITGI, <http://www.edison.it/en/company/gas-infrastructures/itgi.shtml>, (accessed on 5 May 2012)
[393] *Ibid*.
[394] *Ibid*.

[395]Hydrocarbons-Technology.com, '*Interconnection Turkey Greece Italy (ITGI) Pipeline*', <http://www.hydrocarbons-technology.com/projects/turkeygreeceitalypip/>, (accessed on 5 May 2012) / EDISON, Media, '*BEH, DEPA and Edison: project development and shareholders' agreement to build Greece-Bulgaria pipeline (IGB) proceed'*,<http://www.edison.it/en/media/press-releases/2010-03-04-beh-depa-and-edison-project-development-and-shareholders-agreement-to-build-greece-bulgaria-pipeline-igb-proceed.shtml>, (accessed on 5 May 2012)

[396] EDISON, '*Gas Infrastructures'*, ITGI, <http://www.edison.it/en/company/gas-infrastructures/itgi.shtml>, (accessed on 5 May 2012)
[397] *Ibid*.

[398] EDISON, '*Opening the Southern Gas Corridor through ITGI pipeline*', <http://www.edison.it/media/ITGIpipeline.pdf>, (accessed on 5 May 2012)

[399] EDISON, Facts Results, '*Protocol of intents between Italy and Azerbaijan for the development of Turkey-Greece-Italy natural gas transit corridor*',<http://www.edison.it/en/investor-relations/press-releases/financial-press-relases/2007-12-12-protocol-of-intents-between-italy-and-azerbaijan-for-the-development-of-turkey-greece-italy-natural-gas-transit-corridor.shtml>, (accessed on 5 May 2012)

[400] EDISON, '*Opening the Southern Gas Corridor through ITGI pipeline*', <http://www.edison.it/media/ITGIpipeline.pdf>, (accessed on 5 May 2012)

DEPA and Turkish BOTAŞ on June 2010[401]. For the gas that will supply the ITGI project, they rely on the Joint Declaration on Energy which is signed between José Manuel Barroso, President of the European Commission and President of Azerbaijan Ilham Aliyev on January 13, 2011[402]. According to this declaration, Azeri Shah Deniz 2 gas resources will be used to supply one of the European Southern Corridor projects which will be selected by Azerbaijan[403].

The most important feature of the ITGI is that most of the needed pipeline systems required by the ITGI project are already operational[404]. This project is among the Projects of European Interest which means that ITGI is among the projects which have highest level of priority recognized by the EU[405]. EU will cover the 50% of the financing in technical studies, and 29% of the construction costs[406].The project is scheduled to be operational by 2015[407]. Another plus for the ITGI pipeline is that it is possible to use reverse flow of natural gas in the ITGI from Italy to South Eastern market[408].

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[401] EDISON, '*Opening the Southern Gas Corridor through ITGI pipeline*', <http://www.edison.it/media/ITGIpipeline.pdf>, (accessed on 5 May 2012)

[402] EDISON, Media, '*Edison - ITGI: Today's agreement in Azerbaijan is a big steep forward for opening the southern gas corridor*', <http://www.edison.it/en/media/press-releases/2011-01-13-edison-itgi-todays-agreement-in-azerbaijan-is-a-big-steep-forward-for-opening-the-southern-gas-corridor.shtml>, (accessed on 5 May 2012)

[403] *Ibid*.

[404] EDISON, '*Opening the Southern Gas Corridor through ITGI pipeline*', <http://www.edison.it/media/ITGIpipeline.pdf>, (accessed on 5 May 2012)

[405] IGI Poseidon, '*The Project'*, <http://www.igi-poseidon.com/english/project.asp>, (accessed on 5 May 2012)

[406] Hydrocarbons-Technology.com, '*Interconnection Turkey Greece Italy (ITGI) Pipeline*', <http://www.hydrocarbons-technology.com/projects/turkeygreeceitalypip/>, (accessed on 5 May 2012)

[407] *Ibid*.

[408] Finon, Dominique. '*The EU foreign gas policy of transit corridors: autopsy of the stillborn Nabucco project*', OPEC Energy Review, 2011, Organization of the Petroleum Exporting Countries, Blackwell Publishing Ltd, USA., p. 67

However, it is unclear that how the pipeline building will be sponsored and be ready on time to get the gas supplies from the Shah Deniz 2 from the Turkish Greek border to ship it through the Ionian Sea for the European market[409]. That is because the recent economic crisis in Greece will made it unclear that the Greek company DESFA will be able to finance the construction of the pipeline system in the Ionian Sea as a part of the IGI Poseidon. Also one of the shareholders of the project EDISON was considering linking the project with Nabucco[410]. By doing so, they are planning to increase the increase the benefits for both pipelines.

4.2.3. Azerbaijan-Georgia-Romania Interconnector (AGRI):

Figure 8 : Azerbaijan-Georgia-Romania Interconnector (AGRI)

Source: Natural Gas Europe, AGRI Invites Bids for Feasibility Study, http://www.naturalgaseurope.com/agri-lng-invites-bids-for-feasibility-study-3874, (accessed on 9 May 2012)

Azerbaijan-Georgia-Romania Interconnector (AGRI) project also created for the European energy security concept. The project is a joint project by Azerbaijan,

[409] Pflüger, Friedbert. '*The Southern Gas Corridor: Reaching the Home Stretch*', <http://www.europeanenergyreview.eu/site/pagina.php?id=3455&pr>, (accessed on 9 May 2012)

[410] Elliott, S., 2010. '*Italy's Edison would Consider Linking ITGI Gas Link with Nabucco'*. Platts, London., <http://www.platts.com/RSSFeedDetailedNews/RSSFeed/HeadlineNews/NaturalGas/8989375>, (accessed on 9 May 2012).

Georgia Hungary and Romania[411].The AGRI project was started with the 'Memorandum of Understanding on the cooperation in the field of LNG and its transportation' which was signed on April 13, 2010 between Ministry of Industry and Energy from Azerbaijan, Ministry of Energy from Georgia, and the Ministry of Economy, Trade and Business Environment from Romania[412]. After that on 14 September, 2010 presidents of Azerbaijan, Romania and Georgia and Hungary signed the Baku Declaration about the implementation of the AGRI Project in AGRI Summit held in Baku[413]. The project aims to reduce dependence on Russian natural gas and also create diversification of transport routes. This project is the first LNG Project in Black Sea to transport liquefied Azeri gas to Europe[414]. Expected cost of the project depends to the capacity of transport. So far the top cost is 4,5 billion Euros for 8bcm transport capacity[415].The route of the project starts from the Azerbaijan to Georgia and passes the Black Sea to Romania and ends in Hungary[416]. The crossing of the Black sea will be done by tankers[417].After the natural gas from Azerbaijan exists the Georgian port of Kalevi, it will be liquefied for the transportation through the Black Sea, when it reaches the Romanian coast of Constanta it will be regasified for the transportation through pipelines[418]. The shareholders of the project are Azerbaijani SOCAR, Georgian

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[411] AGRI, History, *'Azerbaijan-Georgia-Romania-Hungary Interconnector or the necessary LNG project within the Southern Corridor'*, <http://agrilng.com/agrilng/Home/Istoric>, (accessed on 7 May 2012)

[412] AGRI, '*About Us'*, <http://agrilng.com/agrilng/Home/DespreNoi?Length=4>, (accessed on 8 May 2012)

[413] Ordons News, '*Hungary signs up to AGRI pipe Project*', <http://www.ordons.com/europe/central-europe/7224-hungary-signs-up-to-agri-pipe-project.html>, (accessed on 8 May 2012)

[414] AGRI, '*AGRI: The First LNG Project to be Developed in the Black Sea- Converting ideas into reality*', <http://agrilng.com/agrilng/>, (accessed on 8 May 2012)

[415] AGRI, '*Project Overview'*, <http://agrilng.com/agrilng/Home/DescriereProiect>, (accessed on 8 May 2012)

[416] *Ibid*.
[417] *Ibid*.

[418] Michael Ratner,Paul Belkin, Jim Nichol and Steven Woehrel, '*Europe's Energy Security: Options and Challenges to Natural Gas Supply Diversification*', Congressional Research Service, CRS Report for Congress,13 March 2012, R42405, p.15

GEORGIA, Romanian ROMGAZ and Hungarian MVM[419]. The feasibility studies planned to be concluded by the second quarter of 2012[420].

4.2.4. Nabucco Gas Pipeline:

Figure 9: Nabucco Gas Pipeline

Source: Nabucco Pipeline, Pipeline Overview, http://www.nabucco-pipeline.com/portal/page/portal/en/pipeline/overview, (accessed on 12May 2012)

Nabucco project is the most popular project among the Southern Corridor. The project extends from Turkey to Austria, crossing Romania, Bulgaria and Hungary[421]. The project was first proposed on 2002. The Cooperation Agreement for Nabucco was signed on October 2002 between Austrian OMV Gas, Turkish BOTAŞ, Hungarian MOL, Romanian Transgas and Bulgarian Bulgargaz and in 2008 RWE joins the

[419] AGRI, '*Shareholders'*, <http://agrilng.com/agrilng/Home/Parteneri?Length=4>, (accessed on 8 May 2012)

[420] AGRI, History, *'Azerbaijan-Georgia-Romania-Hungary Interconnector or the necessary LNG project within the Southern Corridor'*, <http://agrilng.com/agrilng/Home/Istoric>, (accessed on 7 May 2012)

[421] Nabucco Gas Pipeline, '*Route'*,<http://www.nabucco-pipeline.com/portal/page/portal/en/pipeline/route>, (accessed on 12 May 2012)

project[422]. In 2004 the Nabucco Gas Pipeline International GmbH was established and in 2009 EU Budapest Summit the project receives support from EU[423]. The pipeline starts from south of Ankara and continues to Bulgarian border crossing from the low level plains of the Marmara Sea and from Bulgaria it follows the existing pipeline structure beneath Danube to Romania and finally it reaches the existing pipeline structures of the Hungary and Austria[424]. The total length of the projects is 3,900 kilometers and the total capacity is 31 bcm/year[425]. Construction work planned to begin at the end of 2013, and the first gas flow planned to be held at the end of 2017[426]. Like all the Souther Gas Corridor projects the Nabucco also plans to get its gas supplies from the Caspian region[427].

4.3. The Supply Problems of Southern Gas Corridor Projects:

When we all look at the all four projects today, we can see that nearly all of them postponed their starting date. The TAP was postponed 2010 to 2017[428], ITGI was postpone 2013 to 2015 and today it is said to be done by 2017[429]. Nabucco was first announced its construction date as2011[430] but postponed to 2012[431] then they

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[422] Nabucco Gas Pipeline, '*Brief History of Nabucco'*, <http://www.nabucco-pipeline.com/portal/page/portal/en/company_main/about_us>, (accessed on 9 May 2012)
[423] *Ibid*.

[424] Nabucco Gas Pipeline, '*Route'*,<http://www.nabucco-pipeline.com/portal/page/portal/en/pipeline/route>, (accessed on 12 May 2012)

[425] Nabucco Gas Pipeline, '*Tam Rakamlar'*, <http://www.nabucco-pipeline.com/portal/page/portal/tr/press/Facts%20%20Figures>, (accessed on 9 May 2012)
[426] *Ibid*.

[427] Nabucco Gas Pipeline, '*The Project'*, <http://www.nabucco-pipeline.com/portal/page/portal/en/Home/the_project>, (accessed on 15 May 2012)

[428]TAP, TAP Brochure, '*Why is TAP crucial to Europe's energy future?*', <http://www.trans-adriatic-pipeline.com/fileadmin/pdfs/brochures_2011/CD1900_TAP_bro_200x250_eng_f_sm.pdf>, (accessed on 9 May 2012), p.2

[429] Milliyet, '*Nabucco yerinde sayıyor 'ITGI' Berlusconi'yi bekliyor'*, <http://ekonomi.milliyet.com.tr/nabucco-yerinde-sayiyor-itgi-berlusconi-yi-bekliyor/ekonomi/ekonomidetay/31.01.2010/1192957/default.htm>, (accessed on 15 May 2012)

[430] European Dialogue, '*Nabucco and Hopes of Georgia'*, <http://eurodialogue.org/Nabucco-And-Hopes-%20Of-Georgia>, (accessed on 15 May 2012)

postponed it 2013[432]. There are many problems that these pipeline projects are facing right know. Firstly, the economic crisis in Europe changed the grounds. Many observers say that the demand of natural gas in Europe decreased due to the recent economic situation. This decrease in demand causes the investments to hesitate to give support to the projects and also makes it harder for European Community to give support to all of the projects. The European Community could not support and maintain investments to the entire proposed Southern Gas Corridor projects together[433]. However the impact of the economic crisis will not create a smaller demand of natural gas in Europe, it only slows down the rapid increase in the demand of import[434]. But according to executive director of the Institute for the Analysis of Global Security (IAGS) Gal Luft, economic instability in Europe and the precarious nature of European society is interfere with the major investments in the energy sector and this will slowly kill the big projects with big problems, like Nabucco[435]. Here the supply security carries a great importance for the European Union. They need to make sure the projects in the Southern Gas Corridor have definite supplies and these supplies have continuality.

When we look at the projects' supply problems, we can see that the Shah Deniz 2 field is significant to all. According to recent researches, the supplies from Turkmenistan, Iraq and other Middle Eastern countries will not come in the short term

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[431] 1in, '*The Nabucco Project Postponed'*, <http://www.1in.am/eng/world_rcentralasia_236.html> , (accessed on 15 May 2012)

[432] Eurasianet, '*Nabucco Postponed, Turkemnistan Focuses on Trans-Caspian'*, <http://www.eurasianet.org/node/63504>, (accessed on 15 May 2012)

[433] O'Connor, Anna. '*Supply Security and Sustainability in the EU's Energy Strategy'*, MSc International Relations, Graduate School of Social Sciences, Universiteit van Amsterdam, The Political Economy of Energy, Amsterdam, July 2010, p.71

[434] Kaveshnikov, Nikolay. '*The issue of energy security in relations between Russia and the European Union*', European Security, Vol. 19, No. 4, December 2010, Taylor & Francis, p.588

[435] Habertürk, '*Nabucco yavaş yavaş ölecek*', <http://ekonomi.haberturk.com/makro-ekonomi/haber/692210-nabucco-yavas-yavas-olecek>, (accessed on 15 May 2012)

because of the lack of knowhow, political situations and economy[436]. This will lead the projects to the gas that is available and on sale in Azerbaijan which is Shah Deniz 2 field[437]. But the recent developments will puts the Azerbaijan's position as a supplier country in difficult situation. The conflict between Azerbaijan and the Armenian forces in the Nagorno Karabakh seems to be at the peak point that soon to be explodes.

Nevertheless, it is impossible for the Shah Deniz 2 field to supply all of the gas projects of the Southern Gas Corridor[438]. Some industry experts state that, some of the Southern Gas Corridor projects won't be able to see the light of day because they are mostly focusing on the same sources of gas[439].

In addition to that, Russia has already signed a deal for buying the Shah Deniz 2 fields natural gas on 29 June, 2009[440]. And with that agreement Russia became the first company listed as 'potential purchaser of natural gas from Stage 2 of Azerbaijan's new Shah Deniz field'. Gazprom's Chief Executive Officer Alexei Miller stated that the agreement that they made with the Azerbaijani government for the Shah Deniz 2 field stipulates that if a rival company wants to get the gas from the field they need to outbid Gazprom's offer for the field[441]. The energy expert Ilham Shaban stated that " *Western media and analysts will, of course, say that Azerbaijan has turned towards Moscow and given up its commitments [to the US and EU-backed pipeline project Nabucco],*

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[436] TAP, TAP Brochure, '*Why is TAP crucial to Europe's energy future?*', <http://www.trans-adriatic-pipeline.com/fileadmin/pdfs/brochures_2011/CD1900_TAP_bro_200x250_eng_f_sm.pdf>, (accessed on 9 May 2012) , p.12
[437] *Ibid.*

[438] Michael Ratner,Paul Belkin, Jim Nichol and Steven Woehrel, '*Europe's Energy Security: Options and Challenges to Natural Gas Supply Diversification*', Congressional Research Service, CRS Report for Congress,13 March 2012, R42405, p.15

[439] Elliott, S., 2010. '*Italy's Edison would Consider Linking ITGI Gas Link with Nabucco'*. Platts, London., <http://www.platts.com/RSSFeedDetailedNews/RSSFeed/HeadlineNews/NaturalGas/8989375>, (accessed on 9 May 2012).

[440] Abbasov, S., 2009. '*Russia scores double match point with Azerbaijani gas deal'*. Eurasianet, <http://www.eurasianet.org/departments/insightb/articles/eav063009a.shtml>, (accessed on 9 May 2012).
[441] *Ibid.*

but the truth is that nobody but Gazprom has made concrete proposals to Azerbaijan concerning Stage 2 so far."[442] Also it is known that Gazprom made an offer to buy the all gas that will be produced in the stage 2 of the Shah Deniz field[443]. In an environment like this, where it is hard to get European funds and bank supports for their projects because there are many proposed projects on hold, the Southern Corridor projects of the European Union seems to be stuck in a limbo.

When we look at the AGRI project, since the transportation of natural gas to Europe will be done by shipments through the Black Sea, there is also a risk about the availability of the LNG transportation with ships because of the recent economic crisis[444]. In addition to that, the LNG has a higher cost than the natural gas due to its natural conditions[445]. So that, AGRI project will face transportation problems in the future. Furthermore the project was recently having a financing conflict that all the participating countries couldn't end up with a solution. However recently they all agreed to finance the project themselves[446].

In addition to these the economic situation of Greece makes the projects that they are in somewhat shallow. Greece participating TAP, ITGI, IGB and the Russian project South Stream. These projects are in a competition to get the support of the EU and to get the Azerbaijanı gas. When we look at the Azerbaijani view to get their political and economic needs these projects of Southern Gas Corridor carries great importance to them. So that they will choose the project that they will supply with Shah

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[442] Abbasov, S., 2009. '*Russia scores double match point with Azerbaijani gas deal'*. Eurasianet, <http://www.eurasianet.org/departments/insightb/articles/eav063009a.shtml>, (accessed on 9 May 2012).
[443] *Ibid*.

[444] Lajtai, Roland. '*LNG VS. Russian Natural Gas Dependency in the South Eastern European Region*', 24th World Gas Conference, Buenos Aires, Argentina, 5-9 October 2009, p.14

[445] Vitaly Protasov, EU-Russia Gas Relations: a View From Both Sides, International Association for Energy Economics, Fourth Quarter, 2010, p.28

[446] Salam News, "*Azerbaycan-Romanya-Gürcistan-Macaristan Sıvı Doğalgaz Projesinin Finans Konusu Çözüldü – Azerbaycanlı Bakan*", <http://tr.salamnews.org/tr/news/read/116663/azerbaycan-romanya-guumlrcistan-macaristan-sivi-dogalgaz-projesinin-finans-konusu-ccediloumlzuumllduuml-ndash-azerbaycanli-bakannbsp/>, (accessed on 15 June 2012)

Deniz 2 gas due to its productivity, stability and guarantee of financing. On the other hand when we look at the situation from the EU's view, the same qualities will count and in addition to these they will have a criteria of the supply security that the pipeline will supply Europe without interruption and to do that they needed to have a reliable supply country. As Ambassador Morningstar sates, *"Azerbaijani natural gas "is absolutely essential to the development of the Southern Corridor"*[447]. I Greece cannot support the projects that they are participating it is hard for them to pass the Azerbaijani criteria and without gas EU will not support the projects.

One of the star projects of the EU's Southern Gas Corridor, Nabucco, despite ambitious beginnings, there are still some problems and questions over construction of this pipeline. This issue distress Azerbaijan, since they cannot postpone the exploration of Shah Deniz II field again after it suspended in 2009[448]. Also Nabucco needs a large financial support that is why recently they introduced a new short version of the Nabucco[449]. However the delays in the project make the project unreliable to the investors. It has been on the agenda of EU nearly a decade but there is nothing much has done. TAP, as I stated earlier, seems to be the winner of this Southern Gas Corridor projects. They have strong shareholders which are very experienced in onshore and offshore pipeline building in Europe like EON, Statoil and EGL Group[450]. However when we look at the Russian South Stream project we can see they have it all. They have demand, finance, and supplies. When the Nabucco and other Southern Gas Corridor projects started to sag, Russia with South Stream accelerated their work.

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[447] Michael Ratner,Paul Belkin, Jim Nichol and Steven Woehrel, '*Europe's Energy Security: Options and Challenges to Natural Gas Supply Diversification*', Congressional Research Service, CRS Report for Congress,13 March 2012, R42405., p.20

[448] International Strategic Research Organization, '*Shah Deniz II Natural Gas Field: What Will Azerbaijan's Decision Be? ITGI, Nabucco or TAP?*', <http://www.usak.org.tr/EN/myazdir.asp?id=2290>, (accessed on 26 May 2012)

[449] EuRussia Centre, "*Natural gas pipeline Nabucco is significantly shorter*", <http://www.eu-russiacentre.org/news/natural-gas-pipeline-nabucco-significantly-shorter.html>, (accessed on 15 June 2012)

[450] Pflüger, Friedbert. '*The Southern Gas Corridor: Reaching the Home Stretch*', <http://www.europeanenergyreview.eu/site/pagina.php?id=3455&pr>, (accessed on 9 May 2012)

In addition to the overall situation of these projects, the dependency levels of European Union force EU to settle this natural gas problem. That is why EU needs fast and accurate solutions in a short time. As I stated in the third chapter, the need of import dependency is rising fast. It is very crucial for EU to have a project that will fulfill these needs. The project must have an accurate and continuous source to give EU supply security and will divert the source of this should be outside Russia for creating supply diversification. Also this project should be done at least until 2020.

In the overall situation, these projects are hardly seem to deliver all. They all have problems of resource. Their resource country also has political problems inside which is Nagorno-Karabakh issue. Besides when we look at the recent developments in Azerbaijan, their fight with Armenian forces about the Nagorno-Karabakh issue is gaining heat. So that any attempt of choosing the Armenian side form EU make their natural gas supply unsafe.

CHAPTER 5

RUSSIA'S SOUTH STREAM PROJECT

5.1. Definition of South Stream Project:

Because Europe carries great importance for Russia, Russia wants to eliminate any possibility that they will lose Europe in the future. That is why, when we look at the general behavior of Russia in the energy field of Europe, we can see that they are trying to purchase ports, storage facilities, controlling stages in pipelines which they will use to transport energy supplies to European markets[451]. These key energy assets will also beneficial for Russia to secure its control over the domestic markets of the Europe[452]. For these reasons, it is clear that Gazprom is under pressure from its head of the state to increase their presence in the European market[453]. Thus they are not shy about their intention to "*advance into the European downstream with direct sales to European consumers*"[454]. In return Russia states that they are willing to give stakes for developing in Russian downstream to European companies[455].

At the same time, building new pipelines will create great opportunity to consolidate its place in Europe. Russia has already started the alternative pipelines in 1990s with Yamal-Europe 1 pipeline then Nord Stream and recently they are committed to the South Stream project[456].However Russia is highly frustrated by the

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[451] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.4
[452] *Ibid.*

[453] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.96
[454] *Ibid*., p.98
[455] *Ibid.*

[456]Chyong, ChiKong. "*The Economics of the South Stream pipeline in the context of Russo-Ukrainian gas bargaining*", <http://www.usaee.org/usaee2011/submissions/OnlineProceedings/Chyong_The Economics of the South Stream pipeline in the context of Russo – Ukrainian gas bagaining.pdf>, (accessed on 9 November 2011),p.1

transit issues[457]. Therefore, Russia is building its newly investments free of transit problems such as the cases of BTS oil pipeline network and Primorsk oil terminal[458].

South Stream is one of the projects that Russia is proposed to eliminate those transit risks. When we look at this proposed project, first of all the most emphasized importance of the South Stream according to Russia is that, it will critically increase the energy security. Starting with the Nord Stream Project Russia's intentions was to build a pipeline delivering Russian gas to European markets, which removes the need of a transit country[459].So that, this project which proposes a pipeline through seabed of Black Sea from Russia to Europe carrying Russian gas to South and Central Europe. The reason for to propose such a project is to eliminate the 'transit country' problem which Russia faced starting from 2005 with Ukraine.

The definition to the gas pipeline in its web page, one of the aims of the project is to strengthen the European energy security. In their own words *"It is the key project in the diversification strategy for gas supply routes to the EU."*[460]. The reason that they propose this idea is because the pipeline does not have any transit country till it reaches Europe so that "*pipeline will ensure a direct connection between hydrocarbons suppliers and consumers…*"[461]. As for the major aim for the project in the South Stream web page, meeting the increasing energy demands of the Europe with the most environmentally safe way, with natural gas, and with free of transit country problem[462].

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[457]Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.2
[458]*Ibid.*

[459] Tarasov, J.D. Aleksei. '*The making of empires: Russia's gas-exporting pipelines v Nabucco*', Journal of World Energy, Law & Business; Mar2011, Vol. 4 Issue 1, p.77

[460] South Stream AG., '*Gas Pipeline Significance',*<http://south-stream.info/index.php?id=9&L=1>, (accessed on 1 October 2011)
[461] *Ibid.*
[462] *Ibid.*

By emphasizing the 'Environmentally Safe Way' they propose to supply the *"cleanest fossil fuel in the most eco-friendly way"*[463] by that they propose reducing the Europe's CO_2[464]. They also propose maintaining this environmentally safe idea in construction and also in the production processes. "*South Stream will be built with the use of cutting-edge and time-tested engineering solutions meeting environmental requirements*[465]" by working in accordance with the international and European laws and regulations and also with the national legislations of the host countries.

Figure 10: South Stream Pipeline – Proposed Route

Source: South Stream AG., Gas Pipeline, '*Route*', < http://south-stream.info/index.php?id=10&L=1>, (accessed on 2 October 2011)

The project offers to transport 63 billion cubic meters per annum and its total length of the offshore pipeline section will be 900 kilometers with the maximum pipeline depth of 2,250 meters in the Black Sea seabed[466]. So that the project offers a

[463] South Stream AG., '*Gas Pipeline Significance*',<http://south-stream.info/index.php?id=9&L=1>, (accessed on 1 October 2011)
[464] *Ibid.*
[465] *Ibid.*
[466] South Stream AG., '*Gas Pipeline Facts and Figures*', <http://south-stream.info/index.php?id=14&L=1>, (accessed on 1 October 2011)

large scale gas import to Europe which is twice of Nabucco offers[467]. The construction of the South Stream proposed to commence in 2013 and the first gas supplies are scheduled for late 2015[468]. The cost of this project is still in limbo. According to the web page of the South Stream, the cost of the project will be determined after the completion of the Consolidated Feasibility Study[469].

The head of the project carries importance as the project itself. Marcel Kramer recently appointed to his task as the Chief Executive Officer and the CEO of the South Stream pipeline project[470]. He is also currently the President of the Royal Dutch Gas Association (KVGN)[471]. He has vast experience in the oil field. Starting from 1976 he worked at different oil industries and cooperation's[472]. His experience in the field will have many positive affects to the South Stream project. Also he has many memberships in the energy field such as Shareholders' Committee of Nord Stream AG, Supervisory Board of the Dutch company Royal Boskalis Westminster, International Gas Union and Gasunie as Managing Director of the Technology and Assets Division where he performs as chairman of the Executive Board and Chief Executive Officer of Gasunie since July 2005[473].

5.2. The Formation Process of the South Stream:

Russia moved very quickly with the settling of the agreements with the countries that they planned to be on the route of the South Stream, which is why it's

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[467]Dieckhöner, Caroline. *'Simulating Security of Supply Effects of the Nabucco and South Stream Projects for the European Natural Gas Market'*. EWI Working Paper. Cologne, 2010, Germany , p.6

[468] South Stream AG., '*Gas Pipeline Facts and Figures'*, <http://south-stream.info/index.php?id=14&L=1>, (accessed on 1 October 2011)
[469] Ibid.

[470]Gazprom, Pipelines, '*South Stream'*, <http://www.gazprom.com/production/projects/pipelines/south-stream/>, (accessed on 1 October 2011)

[471] South Stream AG., Press Center, '*Marcel Kramer*', <http://south-stream.info/index.php?id=71&L=1>, (accessed on 1 October 2011)
[472] *Ibid.*
[473] *Ibid.*

called in non-official European slang as 'blitzpipe'[474]. The reason for Russia to move very fast is I believe the Nabucco project. The Nabucco-ITGI projects is nearly identical to the South Stream project with its geographic structure and when we look at the resources the frame is the same that they will both require Central Asian hydrocarbon energy so that if one project uses these resources there will be no room for another project[475]. This means that "*construction of one of these networks could mean, at the very least, the postponement of one another*."[476].

On June 23, 2007 South Stream was first announced with the Memorandum of Understanding for the South Stream, which was signed between the Alexander Medvedev the Deputy Chairman of the Gazprom Management committee and Paolo Scaroni, Chief executive Officer of Eni[477]. The memorandum brings the two companies together in accordance with the previous signed agreement of Strategic Cooperation on November 14, 2006[478]. According to Paolo Scaroni "*The South Stream project is a third pillar for the Agreement on Strategic Cooperation signed by Eni and Gazprom in 2006.*"[479] According to this agreement, the strategic cooperation is "*an opportunity for Gazprom to provide direct Russian gas deliveries to the Italian market in 2007*"[480].

With the Memorandum of Understanding the directions of the cooperation fixed to a ground in the engineering, financing, construction, and management areas. Also the start and end points of the pipeline decided, which are as the starting point Russian

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[474]Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.1
[475]*Ibid*., p.3
[476]*Ibid.*

[477] South Stream AG., Press Center, '*News'*, <http://south-stream.info/index.php?id=38&L=1&tx_ttnews[tt_news]=2&cHash=40bc1cbfc6>, (accessed on 3 October 2011)
[478] *Ibid.*
[479] *Ibid*.

[480] South Stream AG., Press Center, '*News'*, <http://south-stream.info/index.php?id=38&L=1&tx_ttnews[tt_news]=3&cHash=8842eef493>, (accessed on 3 October 2011)

coast, Beregovaya and as the end point of Bulgarian coast[481]. In this memorandum the route of the project was undecided but there were 2 possible routes for the land section that two parties were discussing in detail, one is from Bulgarian coast to the northwest and another to the southwest[482].

In September 2007 the Coordinating Committee for the South Stream Project's order was signed by the Alexey Miller, Chairman of the Gazprom Management Committee[483]. With this committee the needed tasks and activities of the Gazprom and Enito examine the occasions for the South Stream pipeline construction[484]. As the head of the Coordinating Committee, Alexander Medvedev was appointed[485]. After one month, the Supplement to the Memorandum of Understanding was signed between Alexey Miller, Chairman of the Gazprom Management Committee and Paolo Scaroni, Chief Executive Officer of Eni with the attendance of Vladimir Putin, President of the Russian Federation and Romano Prodi, Prime-Minister of Italy[486]. The agreement undertakes a Special Purpose Entity (SPE) to provide a market research and seeks to proceeds a feasibility study for the project which was planned to establish until January 15, 2008 and finishes its work until the end of 2008[487]. Also a Special Purpose Entity was established and registered in Switzerland to build the offshore pipeline section of the South Stream with parity basis by Russian Gazprom and an Italian oil and gas

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[481] South Stream AG., Press Center, '*News'*, <http://south-stream.info/index.php?id=38&L=1&tx_ttnews[tt_news]=2&cHash=40bc1cbfc6>, (accessed on 3 October 2011)

[482] South Stream AG., Press Center, '*Booklets'*, <http://south-stream.info/fileadmin/pixs/bukleti/Serb_razv_1.pdf>, (accessed on 2 October 2011)

[483] South Stream AG., Press Center, '*News'*, <http://south-stream.info/index.php?id=38&L=1&tx_ttnews[tt_news]=3&cHash=8842eef493>, (accessed on 3 October 2011)
[484] *Ibid.*
[485] *Ibid.*

[486] South Stream AG., Press Center, '*News'*, <http://south-stream.info/index.php?id=38&L=1&tx_ttnews[tt_news]=4&cHash=2226387a27>, (accessed on 3 October 2011)
[487] *South Stream AG., Press Center, 'News', <http://south-stream.info/index.php?id=38&L=1&tx_ttnews[tt_news]=4&cHash=2226387a27>, (accessed on 3 October 2011)*

company Eni at the end of 2008[488]/[489]. According to this registration Gazprom and Eni "*may jointly decide to engage other foreign partners in the project*"[490].

5.3. The Route of the South Stream:

The route of the South Stream has not yet become absolute but as it's mentioned in the 'History' part of the thesis, there are two possible routes. As the supplier Russia provides the gas supply from the Russia's Unified Gas Supply System[491]. For the project a 2.5 kilometers of pipeline will be constructed and According to the web page of the South stream the natural gas will run from the Pochinki compressor station to the Black Sea coast and ten more compressor stations are planned to be build[492].

When we look at the offshore section of the South Stream we can see that it will start from Russian coast, Anapa or Dzhubga and ends in coast of Varna, Bulgaria[493]."*Its total length will be some 900 kilometers, the maximum depth – over two kilometers*."[494]. The offshore section routes and the European route of the South Stream can be several. When we look at the European route (onshore), there are two routes are being considered. The first one is the northwestern route which goes from

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[488]Gazprom, Pipelines, '*South Stream'*, <http://www.gazprom.com/production/projects/pipelines/south-stream/>, (accessed on 1 October 2011)

[489] South Stream AG., Press Center, '*News'*, <http://south-stream.info/index.php?id=38&L=1&tx_ttnews[tt_news]=5&cHash=4e6a72ab20>, (accessed on 3 October 2011)

[490] *Ibid.*

[491] South Stream AG., Press Center, '*The five questions and answers*', < http://south-stream.info/index.php?id=30&L=1>, (accessed on 3 October 2011)

[492] South Stream AG., Gas Pipeline, '*Route'*, < http://south-stream.info/index.php?id=10&L=1>, (accessed on 2 October 2011)

[493] South Stream AG., Press Center, '*Booklets'*, <http://south-stream.info/fileadmin/pixs/sotrudnichestvo/3d_map/sea_way_big_eng_final.jpg>, (accessed on 2 October 2011)

[494] South Stream AG., Gas Pipeline, '*Route'*, < http://south-stream.info/index.php?id=10&L=1>, (accessed on 2 October 2011)

Slovenia and Austria via Bulgaria, Serbia and Hungary[495]. The second route however goes through Greece and Italy[496]. "*Gas laterals will be diverted from the main route of the South Stream onshore section in Europe to Croatia and Macedonia*."[497].The pipeline will go through the exclusive economic zones of Turkey, Russia and Bulgaria in Back Sea[498].

Moscow administration seems to be determined and ambitious to build the pipeline[499]. As an energy leader of the world Russia has both economic and political reasons for building the South Stream. The leaders of Gazprom and Russia give the reasons which are the possible increase of the need for natural gas in Europe according to the recent statistics and that they think that the current pipeline system is not eligible in terms of energy security and capacity. Also, with the current pipelines, the increasing demand for hydrocarbons will not be fulfilled[500]. Plus the infrastructure that Russia is currently using for transporting natural gas to Europe is aging and not meeting the future possible demands of Europe, so additional investment like South Stream is needed for Gazprom to maintain the current levels of production[501].

Russia also argues that with this project the diversification of energy routes will be achieved[502]. Because of its old agreements about energy transit routes through

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[495] *South Stream AG., Gas Pipeline, 'Route', < http://south-stream.info/index.php?id=10&L=1>, (accessed on 2 October 2011)*
[496] *Ibid.*
[497] *Ibid.*
[498] *Ibid.*

[499]Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.1

[500] South Stream AG., '*Gas Pipeline Significance',*<http://south-stream.info/index.php?id=9&L=1>, (accessed on 1 October 2011)

[501] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.2

[502] South Stream AG., '*Gas Pipeline Significance',*<http://south-stream.info/index.php?id=9&L=1>, (accessed on 1 October 2011)

Ukraine, Belarus and the Baltic states, the transportation has problems[503]. "*So if the routes are the problem, why not change the routs?*"[504]. That is why Russia is proposing new routes, free of transit problems. By this way they can be able to erase the security issue of EU from its agenda. The multiplicity of alternative energy transit routes increases the stability and reliability of the delivery[505]. So this will increase the energy security for the European customers[506]. This is the reason why European Commission supports Russia in building new alternative pipeline routes without transit countries, in order to avoid the past experiences about transit countries[507].

But the important question about this project is that whether the project is based on economic needs and benefits, or it is a political project that serves the interests of the Russian State. The way Russia defines the project is based on future economic needs of the Europe, it shelters many political notions in it.

5.4. Discussions about the Project

The first problem with the Russia in terms of energy security for Europe is that the construction of South Stream consists of six national parts and these six national parts doesn't have any relation to each other but the promise from Putin[508]. Owing to South Stream, Russia collected real revenues by making limited construction commitments[509]. In addition to that, as Christian Cleuntix and Jeffrey Piper stated "*Russia's perceived strategy of divide and rule is in fact the mirror of the EU's*

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[503] Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.'*, Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.100
[504] *Ibid*.
[505] *Ibid.*
[506] *Ibid*., p.101
[507] *Ibid.*

[508]Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.4
[509]Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.3

weakness, not the cause of it"[510]. This action of Russia can be interpreted as the pipeline policy of Russia would likely to lead an OPEC-type organization that would control the prices in natural gas market[511]. According to some academics there we can see that Russia continues to use its old patterns and with that they are maximizing their room for bargaining[512]. These actions were leading discussions among Europe in the expense of Russia.

The feasibility is important question for the European countries because there are a lot of critics questioning the feasibility of South Stream project. The reason for the questioning the South System's feasibility is that mostly the fact that Gazprom doesn't have the know-how and the engineering skills pull up the project by itself[513]. The potential gas fields that are not being extracted needs tremendous amount of capital investment and highly sophisticated technology[514]. The investment of foreign companies can speed up the development of these fields[515]. But the investment environment of the Russian energy sector is unpredictable[516]. That is why it is not easy to attract the international investment to Russian energy sector. Also this sector is highly dominated by the Russian state owned company, Gazprom[517]. Other than the International companies, the domestic private companies have no interest in extracting gas because of the Gazprom's domination in the field[518]. That is why Russian energy

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[510]Buchan, David. '*Energy and Climate Change : Europe At the Crossroads.',* Oxford: Oxford University Press for the Oxford Institute for Energy Studies, 2009., p.81

[511] Tarasov, J.D. Aleksei. '*The making of empires: Russia's gas-exporting pipelines v Nabucco*', Journal of World Energy, Law & Business; Mar2011, Vol. 4 Issue 1, p.82

[512]Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.5
[513]*Ibid*., p.2

[514] Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011
. ,p. 161
[515] *Ibid*.
[516] *Ibid*.
[517] Bahgat, Gawdat. *Energy Security: An Interdisciplinary Approach*. Hoboken: John Wiley & Sons, 2011,p. 161
[518] *Ibid*.

sector is losing its valuable assets[519]. I believe this view comes from the previous development rate in the Russian gas sector. The natural gas sector in Russia was proceeding slower than the oil sector because, the requirements of the field is more complicated than the oil sector[520]. Also because, the natural gas doesn't seem as a must have than oil in some industries such as petrochemicals and transportation[521]. But recently Russia realized the importance of the natural gas to Europe and the rest of the world. They are making vast progress in the field of natural gas trade.

Another feasibility problem for the South Stream is the Black Sea problem. The Black sea off-shore zone has an unsettled legal status[522]. The offshore part of the South Stream will go through the economic zones of Russia, Turkey and Bulgaria. To settle the problem diplomatically Russia made great connections with the border sharing countries. Also they changed the route of the offshore section. The previous proposed off-shore pipeline route was passing through Ukraine which is the reason for Russia to build the South Stream pipeline[523]. However they don't have to deal with Ukraine now because of this change. Also Russia has already signed an agreement with the Turkey about using the Black Sea seabed to build the off-shore part of the South Stream[524]. They have also signed an agreement with Bulgaria too[525].

Russia's credibility is also a problem to the European Union because in its structure there are Balkan and Central European countries that suffered from the

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[519] *Bahgat, Gawdat. Energy Security: An Interdisciplinary Approach. Hoboken: John Wiley & Sons, 2011*
,p. 161.
[520] *Ibid.*
[521] *Ibid*.,p. 160

[522] Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.2
[523] *Ibid.*

[524] CNN Turk, Economi, '*Türkiye'den Güney Akım'a Onay'*, <http://www.cnnturk.com/2011/ekonomi/genel/12/28/turkiyeden.guney.akima.onay/642339.0/index.html >, (accessed on 21 July 2012)

[525] South Stream, Cooperation, Bulgaria, http://www.south-stream.info/index.php?id=17&L=1., (accessed on 15 June 2012)

Ukrainian gas dispute and those countries are usually fully dependent on the Ukrainian transit so that the route diversification plays a vital role for them. With South Stream projects political value, Russia may want to broaden its sphere of influence in it's near abroad and gather more domestic support to its current leadership[526]. From this perspective if there will be any significant delays about the completion time, these counties will make different investments about their dependence[527].

The South Stream project disturbs especially the Baltic members of the European Union because these are the most dependent countries to Russia in term of energy[528].Nearly the 90% of their oil and all of their natural gas consumption comes from Russia[529]. Also Russia has a large stake of their domestic energy companies so that they can control the domestic markets without effort[530].That is why besides the Baltic countries, the central and eastern members of EU want EU Commission to take stronger precautions against Russia on dependence of energy[531]. When their efforts failed they use the energy tool by cut offs such as in the case of Mazeikiai oil complex of Lithuania[532]. Mazeikiai is the largest firm in Lithuania by contributing the country's 10%[533]. When Lithuania decided to sell a large stake of Mazeikiai and operating rights to a U.S firm called William International, as a respond to that Russia cut in Lukoil and slowdown the deliveries to Mazeikiai in purpose to make it unprofitable, so that

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[526]Chyong, ChiKong. "*The Economics of the South Stream pipeline in the context of Russo-Ukrainian gas bargaining*", <http://www.usaee.org/usaee2011/submissions/OnlineProceedings/Chyong_The Economics of the South Stream pipeline in the context of Russo – Ukrainian gas bagaining.pdf>, (accessed on 9 November 2011) ,p.3

[527]Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.3

[528] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.1

[529] *Ibid*.,p.12

[530] *Ibid*.

[531] *Ibid*.,p.4

[532] *Ibid*.,p.12

[533] *Ibid.*

William International had to sell its stake to Yukos Oil Company in 2002[534]. Although this image gives the understanding of Gazprom wants to be the controlling company of the South Stream and the fact that it's supplying a large amount of Europe's gas consumption, this does not mean that Gazprom will be the only one[535]. They need EU's political support and reliable investment for South Stream to be implemented[536]. Also the assumption that an entrepreneur cannot make a strategic investment is inadequate and is left up to each play to move according to their desires[537].

The supporters of the South Stream project, generally the Russian side and the energy leaders of Europe that has great connection with Russian energy companies and Russian political leaders. They argue that this project will satisfy the energy hungry European markets and provide more secure Russian supplies to Europe[538]. South Stream is a clear-cut project for Europe because the project itself almost exclusively dependent upon Gazprom[539]. South Stream is a 'single actor issue' because the Gazprom doesn't need any additional push to find incremental supply volumes for the pipeline, doesn't have worries about the major markets on its route and also the Moscow has a very strong stance in bargaining position with small countries and the important thing here in South Stream project is the Russian determination and capabilities[540].

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[534] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.12

[535]Chyong, ChiKong. "*The Economics of the South Stream pipeline in the context of Russo-Ukrainian gas bargaining*", <http://www.usaee.org/usaee2011/submissions/OnlineProceedings/Chyong_The Economics of the South Stream pipeline in the context of Russo – Ukrainian gas bagaining.pdf>, (accessed on 9 November 2011) ,p.4
[536]*Ibid.*
[537]*Ibid.*
[538]*Ibid.*,p.3

[539]Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.1
[540]*Ibid.*

The presence of Gazprom in a project will bring significant guarantees for investors in supply and maximal turnover questions[541]. Russian involvement will bring many advantages in building new infrastructure such as expensive storages and pipeline facilities effectively[542]. The entrance of Gazprom into European domestic markets can be beneficial for its European partners because it will create better security of supply because most of these countries don't have sizeable transit capacities or funds to construct cheap storage facilities so that it will be more secure to make those decisions together with Gazprom[543]. Furthermore "*South Stream would not be feasible without clear Gazprom guarantees that it would use the new network*."[544]. Also letting Gazprom assets into their domestic markets, the European partner countries will be in an advantageous position to bargain with Russian monopoly and also secure their domestic supplies.

[541]Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.4
[542]*Ibid.*
[543]*Ibid*.
[544]*Ibid.*

CHAPTER 6

CONCLUSION

The main intention behind the Russia's actions is to strengthen their position in European energy market as an energy supplier because Europe carries great importance in Russian energy market and Russian economy, since their economy getting dependent to these hydrocarbon trades. If Europe attempts to sell these energy assets to non-Russian firms it will be devastating to Russia so that Russia needs to be in strong place to use its domination over these domestic markets[545]. With the South Stream project Russia could be able to foreclose to the Europe's Southern corridor[546]. This will create a big relief in Russian economy and energy market that they will have a reliable customer. Also having that kind of relation with Europe the European investors will show particular interest in Russian markets. They will have a strong back up for their energy industry also because with the know-how that Europe will bring to Russia, they will develop their energy industry fast and solid.

The growing dependence of the Russian economy on energy trade leads Russia to act this way. The share of energy trade in the Russian economy has grown to 25%[547]. So the dependence on hydrocarbon exports in Russian economy is growing increasingly. This creates a mutual dependence between Russia and EU. For this manner Putin states that "*We have worked well with you for many years, even when there was the Cold War. ... Day after day, the Soviet Union delivered for its partners in*

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[545] Woehrel, Steven. "*Congressional Report for Congress: Russian Energy Policy Toward Neighboring Countries*," Washington D.C.: Congressional Research Service, 27 Mar 2008, p.4

[546]Chyong, ChiKong. "*The Economics of the South Stream pipeline in the context of Russo-Ukrainian gas bargaining*", <http://www.usaee.org/usaee2011/submissions/OnlineProceedings/Chyong_The Economics of the South Stream pipeline in the context of Russo – Ukrainian gas bagaining.pdf>, (accessed on 9 November 2011) ,p.3

[547] Espuny, F. Tarradellas. '*EU-Russia Energy Dialogue at the Origins of the European Foreign Energy Policy*', EU-Russia Centre, The EU-Russia Centre Energy Review, EU-Russia Energy Relations, Issue 9, July 2009, p.8

Europe. What is the point of stoking fears about excessive dependence with regard to Russia today? "[548]. As I stated in the chapter 3, after 2006, the view that the energy resources of Russia have been used as a tool for creating pressure on EU diplomacy got stronger. However with the mutual dependence in the energy field between Russia and EU the problems of trust will leave its place to strong and reliable energy trade relation.

As I stated earlier, Russia needs the support of European countries because they needed Western technology to extract the remained energy because the Russian technology is no longer enough to extract them[549]. That is why the Russian energy policy is linked both with its economic interest and geopolitical considerations. Vladimir Putin also states the importance of cooperating with Europe in energy manners in one of his articles as

> "*We must also consider more extensive cooperation in the energy sphere, up to and including the formation of a common European energy complex. The Nord Stream gas pipeline under the Baltic Sea and the South Stream pipeline under the Black Sea are important steps in that direction. These projects have the support of many governments and involve major European energy companies. Once the pipelines start operating at full capacity, Europe will have a reliable and flexible gas-supply system that does not depend on the political whims of any nation. This will strengthen the continent's energy security not only in form but in substance. This is particularly relevant in the light of the decision of some European states to reduce or renounce nuclear energy*."[550].

From this quote it is understood that Putin sees the South Stream as a key project that will develop the energy relations with EU and a project that will contribute greatly to the energy security of EU as well by reducing the transit country risks that will lead energy cut offs.

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[548] Deutsche Welle, '*Putin: Russia Threatened by Europe's Energy Demands"* , <http://www.dw.de/dw/article/0,,1983083,00.html>, (accessed on 5 July 2012)

[549] Espuny, F. Tarradellas. '*EU-Russia Energy Dialogue at the Origins of the European Foreign Energy Policy*', EU-Russia Centre, The EU-Russia Centre Energy Review, EU-Russia Energy Relations, Issue 9, July 2009, p.8

[550] Archive of the Official Site of the 2008-2012 Prime Minister of The Russian Federation Vladimir Putin, Article by Prime Minister Vladimir Putin for Moskovskiye Novosti, '*Russia and the changing world*', <http://premier.gov.ru/eng/events/news/18252/>, (accessed on 5 July 2012)

In addition to these, to preserve the current position of Russia in the EU's energy markets, the economic tie between Russia and Europe carries great importance. Russia has strong backup in EU, like Italy and Germany. Germany with being an industrial leader in European Union and third largest economy in the world has strong political and economic ties with Russia[551]. The Schröder and Putin alliance has started the Nord Stream project. He was Chancellor of Germany and has a close relationship with Russian president Vladimir Putin. After his term ended, Schröder became the Chairman of the Shareholders of the Russian pipeline project; Nord Stream[552]. His successor Angela Merkel also has good relations with Dmitry Medvedev. When she came to office she stated that she will keep supporting the Russian Nord Stream Project that she believe it carries a strategic importance for Europe[553]. In a meeting with representatives od the German business community Vladimir Putin stated the importance of Germany to the Russian economy

> "*Of course, the Russia-Germany economic partnership is not limited to energy. We cooperate intensively in mechanical engineering, transport, the automotive industry and in shipbuilding. In this regard, particularly noteworthy are the sizable investments made in the Russian economy by German heavyweights such as Siemens (1 billion euros) and Volkswagen (which, on November 4, launched a new assembly line in Russia's Nizhny Novgorod, and the company's plant in Kaluga turned out its 300,000th automobile in October). (…)The amount of German investment that has accrued in the Russian economy has reached $29 billion..*"[554].

As a growing and vast industry Russia needs to sell its energy and to sell this energy to European markets they need close relations with the important countries as Germany to access the goods in an efficient way.

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[551] Whist, Bendic Solum, '*Nord Stream: Not Just a Pipeline: An analysis of the political debates in the Baltic Sea region regarding the planned gas pipeline from Russia to Germany',* FNI Report 15/2008., p.25
[552] *Ibid*., p.6
[553] *Ibid*., p.13

[554] Archive of the Official Site of the 2008-2012 Prime Minister of The Russian Federation Vladimir Putin, Point of View, <http://premier.gov.ru/eng/points/82/?count=10;page=2>, (accessed on 5 July 2012)

When we look at the Italy-Russia relations the Italian Prime Minister Silvio Berlusconi and Putin also have close relationship. Italian energy leader ENI is the main partner of Gazprom in the South Stream Project. Berlusconi government strengthened the relations with Russia. As Vladimir Putin states, Italy is the fourth country among Russian trade partners, "*In 2008, our bilateral trade turnover reached $53 billion, which is 50% more than in 2007*"[555]. Also the cooperation among Italian and Russian governments continues in the military area because in 2009 Russia and Italy was implementing an aircraft project which is called Project Superjet-100[556].

The major countries of European Union like İtaly and Germany wanted to maintain good relationship with Russia with Russia in terms of energy to secure their access to Russian energy supplies. That is why Russia is renegotiating with its European partners. Also it's the only and easy way to change the past agreements in Gazprom's favor[557]. Having that kind of strong backup in European Union, Russia will enhance its political an economical position in Europe, former Soviet republics and in international arena. This power will restore the lost position and prestige of Russia. That is why; as the foundation of their economy turns to hydrocarbon exports South Stream carries strategic and economic value to Russia. With having that kind of support behind them, Russia wanted to force EU to accept the South Stream project, and by doing like that Russia undermines EU sponsored projects of supply diversification.

However as I examined in the chapter 4, there are other energy projects of European Union that are not connected with Russia. These projects are potentially the rival projects. Bu when we look at these projects they don't have the most important notion that the EU seeks, which is the supply security. They don't have a ready natural

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[555] Archive of the Official Site of the 2008-2012 Prime Minister of The Russian Federation Vladimir Putin, Point of View, <http://premier.gov.ru/eng/points/82/?count=10;page=22>, (accessed on 5 July 2012)

[556] *Ibid*., http://premier.gov.ru/eng/points/82/?count=10;page=19 (accessed on 5 July 2012)

[557]Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.4

gas resource to supply these projects. Also these renegotiation contracts among Germany, Austria, Italy and most European and Balkan countries, different from the former ones, Gazprom guaranteed its place in local markets but also with these contracts Gazprom gives away the opportunity to gain further concessions[558]. This means that the big players of the EU have already negotiated with Gazprom that they don't want their concessions to fade away. As Deak states, "*Gatekeeper companies and national champions, like ENI or OMV, guaranteed a small portion of their national markets to be supplied directly by Gazprom or by joint stock companies*"[559]. Also this negotiations makes way for Russia to exploit the underlying contradiction among the EU's energy strategy priorities; namely supply security and supply diversification much more easily.

Furthermore, other than the guarantees that Russia gained in these energy markets, Russia carries great importance in energy markets ıf the former soviet republics. This place strengthens the position of Russia in EU as an energy supplier. Also along with the Turkey's entry to EU, this dependency level will raise more. However Turkey is acting more practical about the energy politics. Turkish government has signed a deal with the South Stream about allowing the South Stream to pass from the Turkeys territorial waters in Black Sea while signing a treaty with the Azerbaijani government about construction of another pipeline project to carry Azeri gas to Europe which is the Trans Anadolu Pipeline. Nevertheless these two contradictory acts of Turkey are consistent with Turkey's policy towards the west which is being the main route of energy transmission lines. But these pragmatic policies of Turkey doesn't seem to decrease its dependence on Russian natural gas in the future.

Ultimately for EU, when we consider the notions of supply security and diversification, the South Stream is the easiest way to achieve them. After examining the country dependence to natural gas in Europe, and their future depended levels, and

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[558]Deak, Andreas. "*Assessing Russian Commitments to the 2015 South Stream Deadline*", The 6th report of the Monitoring Russia-Serbia Relations Project, Energy in Southeast Europe, <http://www.isac-fund.org/download/Energy%20in%20the%20SEE.pdf>, (accessed on 12 November 2011, p.4
[559]*Ibid*.

the strong supporters of Russia among EU, it is not possible to divert EU's energy supply route out of Russia and it is becoming harder for European Union to realize its energy strategies of supply security and supply diversification in its natural gas trade with Russia. From the overall situation of Europe, it is clear that they needed new supply routes to feed the growing need of natural gas in EU. To do that, they need to sacrifice one of the principles of energy security because none of the proposed projects of Southern Gas Corridor could give supply security. They can achieve supply diversification however the sources are not accurate enough to satisfy the future natural gas need of EU.

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APPENDIX

TEZ FOTOKOPİ İZİN FORMU

ENSTİTÜ

Fen Bilimleri Enstitüsü ☐

Sosyal Bilimler Enstitüsü ☐

Uygulamalı Matematik Enstitüsü ☐

Enformatik Enstitüsü ☐

Deniz Bilimleri Enstitüsü ☐

YAZARIN

Soyadı : AYDIN

Adı : Ayşe Esra

Bölümü : Avrasya Çalışmaları

TEZİN ADI (İngilizce) : European Union's Natural Gas Trade with Russia: Competing Priorities of Supply Security and Supply Diversification

TEZİN TÜRÜ : Yüksek Lisans ☐ Doktora ☐

1. Tezimin tamamı dünya çapında erişime açılsın ve kaynak gösterilmek şartıyla tezimin bir kısmı veya tamamının fotokopisi alınsın. ☐

2. Tezimin tamamı yalnızca Orta Doğu Teknik Üniversitesi kullancılarının erişimine açılsın. (Bu seçenekle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır.) ☐
3. Tezim bir (1) yıl süreyle erişime kapalı olsun. (Bu seçenekle tezinizin fotokopisi ya da elektronik kopyası Kütüphane aracılığı ile ODTÜ dışına dağıtılmayacaktır.) ☐

Yazarın imzası ..... Tarih .....