*Alena Zieniewicz**

The External Dimension of the EU Energy Security

Abstract: *In the article the Author examines the current natural gas demand and supply of the EU and the possible changes in the near future. The constantly growing natural gas demand and decrease in domestic gas production makes the EU more and more dependent on foreign energy suppliers, particularly, on Russia. Therefore, the external relations of EU with present and potential gas suppliers and transit countries are playing crucial role in ensuring EU energy security. The Author also analyses the potential threats for the EU energy security that may pose aggressive external energy policy of Russia and China.*

Introduction

The European Union has one of the most developed energy markets in the world. The EU Member States have highly industrialised and developed economies, thereby making them dependent on energy resources, in particular natural gas. The fact is that none of the EU members have sufficient gas resources to ensure their sustainable development and economic growth. In addition, natural gas is a more attractive energy source for the EU states than oil or coal, especially taking into account the declared intent of the EU to reduce CO2 emissions. For these reasons, this article focuses exclusively on the analysis of natural gas supply and demand, and the possibility of diversification of EU gas imports.

The gas crisis in January 2009 showed how much the EU is dependent on external sources of energy, particularly on energy delivered from Russia. The energy crisis highlighted the necessity for the EU to introduce a common external energy policy. The energy issue became an energy security ques-

* **Alena Zieniewicz**, MA – Institute of the European Integration, Lviv National University.

tion, intertwined with the national security of each EU Member State. However, only the common efforts of all Member States will contribute to the EU energy security as a whole, and thus to each individual state as well. Therefore, the issue of energy security is currently very high on the political agenda of European politics.

This article examines EU relations with those non-EU countries that either are the main natural gas suppliers to European markets, may become such in the future, or affect EU supplies of natural gas indirectly. In addition, the article describes several regional initiatives and programmes that were launched by the EU in order to build a common energy market and strengthen the energy security of both the European and partner countries. The main focus of this article is the EU-Russian energy relationship and the interdependence that exists between these partners. The author will try to answer the question: is Russia a reliable energy partner for the EU?

The article examines also the EU energy strategy towards the Central Asian countries such as Turkmenistan, Kazakhstan, Uzbekistan and the EU energy relations with Azerbaijan. The author also analyses the strategic importance of Turkey as a transit country for the EU energy security, and the threats that may be posed by the rapidly growing demand for natural gas in China.

While not treated in this article, it should be noted that the natural gas resources of the Maghreb[1] and Egypt might also play a significant role in the diversification of the EU energy supply. In particular, the expanding capabilities of these countries to export liquefied natural gas (LNG) are of great value for the EU energy market. EU-North Africa energy relations may be a topic of separate research.

The key term in this article is energy security, hence it is necessary for further analysis to give a definition of the term. There are various definitions in use, but this article will apply the European official approach.

The EU's definition of energy security was introduced in the *European strategy for the security of energy supply* (Green Paper, 2000) as '*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*'.[2] Energy security cannot boil down to '*the availability of sufficient supplies at affordable prices*' since it differs from country to country. For an energy-exporting country the main focus of their national energy goals is ensuring the security of their energy exports, whereas the main priority of an energy-poor

[1] African countries such as Morocco, Algeria, Tunisia, Libya, and Mauritania.

[2] European Commission Green Paper, *Towards a European strategy for the security of energy supply*, COM (2000) 769 final.

country, whose economy is dependent on the import of energy resources, is to guarantee a permanent and diversified energy supply.[3]

Energy security depends on numerous aspects, such as diversification of energy supply, energy saving capability, development of energy infrastructure, and stability on the international arena.[4] Therefore, the energy security of the EU as a whole has to become strategically important for all Member States, not only for the European Commission. Only by acting together in the energy sector will the Member States be able to enhance their energy security and, accordingly, their national security.

The external relations of the EU with non-EU energy suppliers are only one of the aspects of EU energy security. In order to ensure its energy security, the EU has to adopt a common energy policy[5], promote energy efficiency, and continue its efforts towards liberalisation of the EU energy markets. The lack of a common foreign policy in the energy sector undermines the energy security of the EU as a whole and of each Member State individually. These aforementioned issues can be analysed in separate research; the present article focuses exclusively on the external dimension of EU energy security.

1. The EU's natural gas demand and supply

After oil, natural gas is the most intensively used energy product in the EU and it constitutes one fourth of overall EU energy consumption.[6] Therefore, it is a primary concern of all EU states to satisfy their domestic natural gas demand and diversify its supply. Currently, the EU is heavily dependent on the import of natural gas from a very few natural gas suppliers, a reality that could potentially pose a threat to the EU's energy security. The European institutions are taking different measures in order to improve the situation in the energy sector. In November 2008 the European Commission prepared an extremely important document with regard to energy security

[3] See, e.g.: D. Yergin, *Ensuring Energy Security*, "Foreign Affairs" Vol. 85, No. 2/2006, p. 70–71.

[4] See, e.g.: J. Baehr, E. Stawicki, J. Antchak, *Prawo Energetyczne (Energy Law)*, Zakamycze 2003, p. 17.

[5] Article 194 of the Treaty on Functioning of the European Union emphasises the priorities of the EU energy policy, but they are of a rather declarative character; therefore more precise legal documents have to be introduced in order to create the EU common energy policy.

[6] See, e.g.: Commission Staff Working Document accompanying the Communication from the Commission Second Strategic Energy Review, *An EU Energy Security and Solidarity Action Plan*, COM(2008) 781 final.

strategy, entitled *The EU Energy Security and Solidarity Action Plan: Second Strategic Energy Review*.[7] The EU Action Plan for energy security is based on five main tasks that have to be achieved to strengthen EU security in the energy sector:

1. *Infrastructure needs and the diversification of energy supplies*
2. *External energy relations*
3. *Oil and gas stocks and crisis response mechanisms*
4. *Energy efficiency*
5. *Making the best use of the EU's indigenous energy resources*.[8]

The energy experts used to argue that natural gas imports into the European Union are constantly increasing, but that it is difficult to predict exactly how much natural gas the EU will need in the future. According to the data from Table 1 below, the EU gas import is predicted to increase to 81.1 per cent of all energy supplies needed by the year 2020.

Table 1. The EU natural gas import, billion cubic metres[9]

EU 27/ bcm/ year	2005	2010	2020
Demand	524	567	636
Domestic production	227	179	120
Deficit	297	388	516
Import dependence	*56.7 %*	*68.4 %*	*81.1 %*

The problem is that this forecast was made in 2008, before the economic crisis shook the energy sector. Currently, a new tendency can be observed in energy markets of the OECD[10] Member States; namely a lower growth rate of energy demand. This trend can be observed in the majority of the EU Member States, which has led to a *decrease* in natural gas purchases (see Table 2).[11]

[7] Ibidem.

[8] Commission Press Release, EU Energy Security and Solidarity Action Plan: 2nd Strategic Energy Review, MEMO/08/703, Brussels, 13.11.2008

[9] T. Mitrova, *European Gas Import Requirements European Gas Import Requirements and Russian Gas Export Potential and Russian Gas Export Potential*, available at: http://www.batory.org.pl/doc/Presentation%20Mitrova.pdf (last visited 16.12.2010).

[10] The Organisation for Economic Co-operation and Development. The majority of the EU Member States are partner countries of the OECD.

[11] The author analysed the natural gas imports in 2008 and 2009 of twelve EU Member States that either have a large economy or import LNG. The main purpose was to show the reduction in gas imports in the majority of these countries; only the United Kingdom had significant positive balance, importing 4.66 billion cubic meters (bcm) more of natural gas in 2009 than in the previous year. In addition, such countries as Belgium and the United Kingdom substantially increased their LGN purchases, reducing, at the same time, their import of natural gas by pipeline infrastructure.

There are several reasons for this. First of all, the lower growth rate of energy demand has been impacted by the reduction of energy intensity of the EU economy, and by the EU policy of improving energy efficiency.[12] Secondly, the share of renewable energy resources is constantly increasing, which allows the EU to use less natural gas to generate electricity. Among the negative reasons for the reduction in natural gas imports is, of course, the slowdown in growth of the EU economy due to the recession. All these positive and negative factors have influenced the EU demand for natural gas and led to the reduction in imports. If these trends continue over the next several years, the EU will not need so much natural gas to be delivered by the Nord Stream and South Stream pipelines from Russia.

Table 2. Natural gas imports of selected EU Member States in 2008/2009, billion cubic metres[13]

The EU Member State	2008			2009			Change 2009 over 2008
	by pipeline	LNG	total	by pipeline	LNG	Total	
Austria	8.10	–	**8.10**	7.98	–	**7.98**	**– 0.12**
Belgium	18.25	2.49	**20.74**	15.01	6.53	**21.54**	**+ 0.80**
France	36.66	12.59	**49.25**	35.99	13.07	**49.06**	**– 0.19**
Germany	87.10	–	**87.10**	88.82	–	**88.82**	**+ 1.72**
Greece	3.20	0.94	**4.14**	2.55	0.74	**3.29**	**– 0.85**
Hungary	11.50	–	**11.50**	8.10	–	**8.10**	**– 3.40**
Italy	75.31	1.56	**76.87**	66.41	2.90	**69.31**	**– 7.56**
Netherlands	18.00	–	**18.00**	17.21	–	**17.21**	**– 0.79**
Poland	9.80	–	**9.80**	9.15	–	**9.15**	**– 0.65**
Portugal	1.93	2.63	**4.56**	1.59	2.82	**4.41**	**– 0.15**
Spain	10.87	28.73	**39.60**	8.99	27.01	**36.00**	**– 3.60**
United Kingdom	35.42	1.04	**36.46**	30.88	10.24	**41.12**	**+ 4.66**

[12] See generally: (Т. Митрова), *Энергорынки в зоне турбулентности (Energy markets in zone of turbulence)*, "Россия в глобальной политике" *(Russia in Global Politics)* No. 3/2009, p. 140–149.

[13] *BP Statistical Review of World Energy*, June 2010, available at: http://www.bp.com/live-assets/bp_internet/globalbp/globalbp_uk_english/reports_and_publications/statistical_energy_review_2008/STAGING/local_assets/2010_downloads/statistical_review_of_world_energy_full_report_2010.pdf (last visited 16.12.2010).

However, the main concern of the EU is that the overwhelming majority of its energy supply comes from only a precious few countries. Such a concentration of resources is a serious security concern for the European Union. Furthermore, new challenges and threats in the international arena like terrorism, political instability, ethnic conflicts, and climate change make a diverse energy supply crucial for the EU. The simple fact is that the EU is most highly dependent with regard to energy supply on Russia. On the other hand, Russia is even more dependent on the EU as an export market. This is evident, in that all the Russian pipelines which already exist and which are under construction are directed towards Europe.

The EU has a unique geopolitical position and should use this to its advantage. The EU is the only region of the world with access to most of the largest global resources of natural gas: North Africa, Central Asia, the Gulf region, and Siberia in Russia (see Table 3).[14] The EU has to take advantage of its location in order to secure natural gas from different regions and countries and not to be dependent on only a few gas suppliers. However, the EU is not currently using the advantage of its location. Only 1 per cent of Europe's gas imports originate directly from the Middle East and the South Caspian Sea region, despite the fact that the Middle East and the South Caspian Sea region can produce cheaper gas and are closer than, for instance, Western Siberia.[15]

Table 3. World's proven natural gas reserves by geographic region, at the end of 2009 (in trillion cubic metres)[16]

Geographic Region	trillion cubic metres	%, share of total
Middle East	76.18	40.6
Europe and Eurasia	63.09	33.7
Asia Pacific	16.24	8.7
Africa	14.76	7.9
North America	9.16	4.9
Central and South America	8.06	4.3

[14] See, e.g.: *Next Steps in Forging a Euroatlantic Strategy for the Wider Black Sea*, ed. R.D. Asmus, Washington, D.C. 2006.

[15] See, e.g.: N. Norling, *Gazprom's Monopoly and Nabucco's Potentials: Strategic Decisions for Europe*, "Silk Road Paper", Central Asia-Caucasus Institute & Silk Road Studies Program – A Joint Transatlantic Research and Policy Center, November 2007.

[16] *BP Statistical Review of World Energy*, op.cit.

From the data in Table 3 it follows that the distribution of natural gas reserves in the world is quite uneven, and Europe has the smallest natural gas resources compared with other regions. Almost three-quarters of the world's natural gas reserves are located in the Middle East and Eurasia.

According to the Statistical Review of World Energy made by British Petroleum in 2010, the Russian Federation has the largest proven natural gas reserves in the world (see Table 4). Therefore, it is no great surprise that the EU is the main consumer of the Russian natural gas and that Russia occupies first place with regard to natural gas suppliers to the European market.

Table 4. Natural gas proven reserves at the end of 2009[17]

No.	Country	Trillion cubic metres	Share of total world reserves, %
1.	**Russian Federation**	44.38	23.7
2.	**Iran**	29.61	15.8
3.	**Qatar**	25.37	13.5
4.	**Turkmenistan**	8.10	4.3
5.	**Saudi Arabia**	7.92	4.2
6.	**U.S.**	6.93	3.7
7.	**United Arab Emirates**	6.43	3.4
8.	**Venezuela**	5.67	3.0
9.	**Nigeria**	5.25	2.8
10.	**Algeria**	4.50	2.4

After the Russian Federation, Norway is the second largest natural gas supplier to the European market and is one of the most reliable energy partners of the EU.[18] In 2009 Norway exported 95.63 bcm of natural gas to the EU by pipeline.[19] The main consumers of Norwegian gas are Germany, United Kingdom and France.[20] Furthermore, the natural gas production in this country has been increasing every year since 1994;[21] in 2009 Norway produced

[17] Ibidem.

[18] Norway's political system is democratic (Parliamentary democracy), and the country has very close relations with the EU institutions.

[19] In 2009 Norway exported only 2.25 bcm of LNG to the EU.

[20] *BP Statistical Review of World Energy*, op.cit.,.

[21] See, e.g.: *Norway. Natural gas*, available at: http://www.eia.doe.gov/emeu/cabs/Norway/NaturalGas.html (last visited 16.12.2010).

103.5 billion cubic metres of natural gas, while it used for domestic consumption only 4.1 bcm.[22] However, the fact is that Norway has exploited the largest part of its natural gas reserves.[23] Therefore it is currently interested in the exploitation of natural gas reserves in the Barents Sea in co-operation with the Russian Federation.

Algeria is one of the top ten countries in the world in terms of the largest proven natural gas reserves, and is the third largest natural gas supplier to the EU. Moreover, this country is the largest supplier of liquefied natural gas (LNG) to the European market; in 2009 alone Algeria delivered 16.46 bcm of LNG to European consumers. However, the amount of natural gas delivered via the pipeline system is still greater and comprised 30.02 bcm of natural gas.[24]

Algeria plays an important role in the EU's efforts to minimise its dependency on natural gas supply from Russia. The EU Energy Commissioner Andris Piebalgs, during his visit in 2006, emphasised the importance of co-operation between the EU and Algeria in the energy sector. In addition, plans for an EU-Algerian strategic energy partnership were introduced, based on a '*regulatory convergence of Algerian and EU energy policies; the development of energy infrastructures of common interest and technology co-operation*'.[25]

Traditionally, the European countries are using pipeline infrastructure to import or export natural gas, however, the role and importance of LNG in overall EU gas imports is constantly growing (see Table 2). There are at least two reasons for this: LNG is more flexible in transportation, and the costs of LNG are decreasing due to technological advances.[26] Therefore, some EU Member States increase their imports of LNG year-by-year, and others have begun to purchase natural gas in liquefied form. Due to technical reasons, the transportation of LNG is only effective at distances up to four thousand kilometres.[27] According to the data of the International Energy Agency, the per-

[22] *BP Statistical Review of World Energy*, op.cit.

[23] See, e.g.: I. Wiśniewska, *Możliwości zmniejszenia zależności Polski od dostaw rosyjskich surowców energetycznych w warunkach intergacji z Unią Europejską (The possibility to reduce Poland's dependence on Russian energy supply in the context of integration with the EU)* in: *Stosunki gospodarcze Polska-Rosja w warunkach intergacji z Unią Europejską (Poland-Russia economic relations with regard to its EU integration)*, ed. P. Bożyk, Warszawa 2004, p. 57.

[24] *BP Statistical Review of World Energy*, op.cit.

[25] *Geopolitics of EU energy supply,* available at: http://www.euractiv.com/en/energy/geopolitics-eu-energy-supply/article-142665 (last visited 16.12.2010).

[26] See, e.g.: T.F. Palm, *The future of LNG in Europe and the potential impact on the market power of the gas suppliers*, available at: http://bora.nhh.no/bitstream/2330/1610/1/Palm%20Thomas%202007.pdf (last visited 16.12.2010).

[27] Cf. I. Wiśniewska, op.cit.

centage of LNG in the European gas supply will increase from 9% in 2004 to 12% in 2015.[28] The largest LNG suppliers on the European market are Algeria (29%), Qatar (16%), Egypt (12%), and Trinidad and Tobago (11%). The main LNG importers in the EU are Spain (58% of all imported LNG in the EU) and France (24%).[29]

2. Regional co-operation in the energy sector

The European Union is making determined efforts to develop regional co-operation, a key element of which is focused on energy security. Numerous initiatives have been launched and financed by the EU dealing with the problem of diversification of energy supply and enhancing energy security.

One of the most significant regional co-operation initiatives in the energy sector is the **Energy Community**, established by Treaty in October 2005.[30] The main mission of the Energy Community is to extend the EU internal energy market to South-East Europe and to contribute to energy security supply not only in the EU but in the wider Europe as well. The Energy Community Treaty was signed by the European Union and nine states; Albania, Bosnia and Herzegovina, Croatia, Former Yugoslav Republic of Macedonia, Montenegro, Serbia, the United Nations Interim Administration Mission in Kosovo, Moldova[31], and Ukraine.[32] Such countries as Georgia, Norway, and Turkey have observer status in the Energy Community.[33] Each Treaty Party has to implement the '*acquis communautaire on energy*'[34] in order to har-

[28] IEA/GLE joint working workshop, *LNG: making gas markets global*, available at: http://www.iea.org/textbase/work/2005/LNGGasMarkets/session_8/5_Patrice_de_Vivies.pdf (last visited 16.12.2010).

[29] See, e.g.: GIE Abbual Conference 2009 presentation, *Gas LNG Europe*, available at: http://www.gie.eu.com/conference/presented/2009/De%20la%20Flor.ppt#362,6,Слайд6 (last visited 16.12.2010).

[30] The Treaty entered into force on 1.07.2006.

[31] Moldova became the eighth full fledged member of the Energy Community on 1.05.2010.

[32] On 24.09.2010 the Protocol on the Accession of Ukraine to the Energy Community at the Energy Community Ministerial Council was signed in Skopije (Macedonia). The Ukrainian Parliament still has to ratify the Treaty establishing the Energy Community, and then Ukraine will become a full member of this international organisation.

[33] See, e.g.: *The Energy Community. Facts and Figures*, available at: http://www.energy-community.org/portal/page/portal/ENC_HOME/ENERGY_COMMUNITY/Facts_and_Figures (last visited 16.12.2010).

[34] According to the Article 11 of the Treaty, the '*acquis communautaire on energy*' means Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity, OJ L 176, 15.7.2003, p. 37; Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning

monise the legislation with regard to the energy sector in the region. According to the Treaty, the main purposes of the Energy Community are to create a stable energy market in the region and to enhance the security of energy supply. In order to achieve the aforementioned goals, the Treaty Parties have to undertake several tasks, such as attracting investment in power generation and networks, creating an integrated energy market, improving the environmental situation with regard to energy, and enhancing competition at the regional level.[35] It is important to mention that although all Treaty Parties contribute to the budget of the Energy Community, the major financial support comes from the EU (about 98 %).[36]

In 1995 the **INOGATE Programme** (Interstate Oil and Gas Transport to Europe) was established as an international energy co-operation programme between the European Union, the littoral states of the Black and Caspian Seas, and their neighbouring countries[37]. Initially, the INOGATE Programme dealt only with oil and gas pipeline infrastructure, but after a conference in Baku, Azerbaijan in 2004 the transformation process of the INOGATE Programme began, which significantly broadened the areas of co-operation. Currently, the INOGATE co-operation framework addresses not only the oil and gas sector but also the electricity, renewable energy, and energy efficiency sectors.[38]

The main goal of this programme is to support the development of new energy infrastructure projects through the provision of targeted technical assistance. Since 2004 the INOGATE Programme has four main areas of cooperation:

- Convergence of Energy Markets
- Energy Security
- Sustainable Development
- Investment Attraction[39]

It is important to note that the INOGATE Programme is one of the most successful projects implemented by the EU with regard to regional co-opera-

common rules for the internal market in natural gas, OJ L 176, 15.7.2003, p. 57; and Regulation 1228/2003/EC of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity, OJ L 176 z 15.7.2003, p. 1. See: The Energy Community Treaty; OJ L 198, 20.7.2006, p. 18–37.

[35] See, e.g.: The Energy Community Treaty, op.cit.

[36] See, e.g.: *The Energy Community. Facts and Figures*, op.cit.

[37] The INOGATE partner countries are: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russian Federation (observer status only), Turkey, Turkmenistan, Ukraine, Uzbekistan, and Tajikistan.

[38] See generally: INOGATE Energy Portal, available at: http://www.inogate.org/en/ (last visited 16.12.2010).

[39] See, e.g.: *INOGATE Programme. Areas of Cooperation*, available at: http://www.inogate.org/inogate_programme/areas_cooperation (last visited 16.12.2010).

tion in the energy sector. The financial support of the Programme comes from EU funds, in particular from the European Neighbourhood Programme Instrument (ENPI). Although INOGATE has been expanded to work in other energy sectors, the oil and gas sector continues to be a core energy sector of the programme, with numerous ongoing projects.[40]

In 2004 the EU launched its largest political and economic initiative towards neighbouring countries, called **the European Neighbourhood Policy** *(ENP)*. The ENP is a bilateral policy between the EU and each partner country,[41] the main purpose of which is to provide technical and financial assistance to the country in its domestic political and economic reforms. The agenda of such reforms is set out in an Action Plan, which has both common as well as specific provisions for each participating country. Each Action Plan includes provisions concerning reforms of the energy sector of the partner country and harmonisation of energy legislation. Some partner countries, such as Algeria, Belarus, Libya and Syria, unfortunately do not actively participate in the ENP; hence they do not have Action Plans.[42] Taking into account that Algeria is one of the largest energy suppliers to the EU and Belarus plays important role in the transit of energy resources from Russia, the absence of close co-operation with these countries within the ENP negatively influences the energy security of the EU.

In the framework of the ENP several regional co-operation initiatives have launched by the European Commission, such as **the Eastern Partnership, the Union for the Mediterranean** (or the Euro-Mediterranean Partnership), and **the Black Sea Synergy**.

The Eastern Partnership (EP)[43] was launched in Prague in May 2009 as the Eastern dimension of the ENP. The EP is addressed to six countries of Eastern Europe and the South Caucasus: Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine.[44] Within the framework of the EP the European Commission will conclude new association agreements with each country, agreements that will include deep and comprehensive free trade arrangements

[40] See generally: INOGATE Energy Portal: Oil and Gas, available at: http://www.inogate.org/european_union/oil-and-gas (last visited 16.12.2010).

[41] See generally: *The European Neighbourhood Policy*, available at: http://ec.europa.eu/world/enp/policy_en.htm (last visited 16.12.2010).

[42] Ibidem.

[43] The EP was initially initiated by Poland, assisted by Sweden, at a the EU's General Affairs and External Relations Council in Brussels on 26.05.2008, and approved by the European Commission and Parliament as a comprehensive EU foreign policy towards Eastern Europe and South Caucasus.

[44] See generally: *The Eastern Partnership*, available at: http://www.eeas.europa.eu/eastern/index_en.htm (last visited 16.12.2010).

as well as market economy principles, human rights, rule of law, good governance, and sustainable development, all which must lead to '*a deeper engagement and gradual integration in the EU economy*'.[45] The energy issue is one of the most important aspects of the EU Eastern policy, therefore, in the autumn of 2009, within the framework of the EP, the Eastern Europe Energy Efficiency and Environment Partnership (E5P) was launched with a budget of EUR 1.5 billion.[46]

The Union for the Mediterranean, known as the Barcelona Process, was re-launched in Paris in July 2008 and includes 16 partners across the Southern Mediterranean and the Middle East.[47] One of the priority projects that is developed within the framework of the Union for the Mediterranean is the Mediterranean Solar Energy Plan, which aims to develop '*renewable energies and energy efficiency measures and reinforce the power grid interconnections and technology transfer in the Mediterranean region'*.[48]

In April 2007, the Commission adopted a Communication to the Council and the European Parliament called the **Black Sea Synergy**, in which energy is a key element. In this document the EU recognises that '*the Black Sea region is a production and transmission area of strategic importance for EU energy supply security and that it offers significant potential for energy supply diversification and it is, therefore, an important component of the EU's external energy strategy*'.[49] The document provides further support for a continuing dialogue on energy security with the EU's energy partners in the region.

In order to avoid duplication of existing regional co-operation frameworks, including the Black Sea Economic Cooperation (BSEC) and the Black Sea Forum (BSF), the Black Sea Synergy is not institutionalised. No additional funds are planned under this framework. It aims instead to co-ordinate different regional initiatives and EU policies in the region.

Another regional initiative that has to be mentioned is the **'Baku Initiative'**. The main purpose of this initiative is to enhance energy co-operation between the European Union and the countries of the Black Sea region, the

[45] Ibidem.

[46] See, e.g.: *Partnerstwo Wschodnie (Eastern Partnership)*, available at: http://www.msz.gov.pl/Partnerstwo,Wschodnie,19887.html (last visited 16.12.2010).

[47] See generally: *Euro-Mediterranean Partnership, (EUROMED*), available at: http://www.eeas.europa.eu/euromed/index_en.htm (last visited 16.12.2010).

[48] *Mediterranean Solar Plan 2010–2020*, available at: http://www.solarthermalworld.org/node/841 (last visited 16.12.2010).

[49] See, e.g.: Communication from the Commission to the Council and the European Parliament, *Black Sea Synergy – a New Regional Cooperation Initiative*, COM(2007) 160 final.

Caspian Basin, and their neighbours. The 'Baku Initiative' helps and encourages the countries of this area to integrate their energy markets, which may lead in the future to the further integration of these markets into the EU market.[50]

The partners of the 'Baku Initiative'[51] are mainly the countries of the Black Sea and Caspian Sea regions, but it also includes a few states which have a great interest in participation in the projects developed within this programme.[52] The situation in the energy sector differs significantly in each of the countries of the Black Sea, Caspian Basin and neighbours, but there is one thing which unites all partner countries – a great interest in securing their energy supplies, avoiding price fluctuations, and attracting investments in the energy sector. Co-operation between the EU and its partner countries can create predictable and transparent energy markets, capable of stimulating investment and economic growth as well as enhancing the security of energy supply for the EU and its regional partners.

3. EU-Russian energy relations

As was mentioned above, the EU needs much more natural gas than it can produce; therefore it has to rely on imports from third countries, particularly, from energy-rich Russia. More than 50 per cent of Russian exports go to the EU, including 70 per cent of total Russian gas exports, and approximately 45 per cent of the EU's imported gas comes from Russia (or 24 per cent of the total EU's gas consumption).[53] The EU is thus the largest consumer of Russian gas, and Russia is even more dependent on the EU market due to the fact that all Russian gas pipelines are directed towards Europe. It is also important to recognise that Russia's economy is heavily dependent on oil and natural gas exports. Although Russia exports only about one fourth of its natural gas production (Diagram 1), this still represents quite large quantities of this resource. According to IMF and World Bank data the '*oil and*

[50] See: *The Black Sea Between the EU and Russia. Security, Energy, Democracy*, 134th Bergedorf Round Table, Odessa 2006, p. 36.

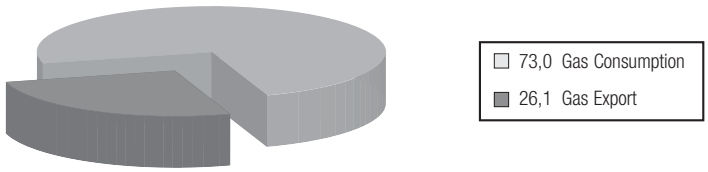
[51] Armenia, Azerbaijan, Belarus, Georgia, Iran (political conditions permitting), Kazakhstan, Kyrgyzstan, Moldova, Russian Federation (observer), Ukraine, Uzbekistan, Tajikistan (new partner), Turkey, Turkmenistan.

[52] See generally: *Energy and transport international relations, Baku Initiative*, available at: http://ec.europa.eu/dgs/energy_transport/international/regional/caspian/index_en.htm (last visited 16.12.2010).

[53] See generally: *EU-Russia Energy Relations*, available at: http://ec.europa.eu/energy/international/russia/russia_en.htm (last visited 16.12.2010).

gas sector generated more than 60 per cent of Russia's export revenues (64 per cent in 2007), and accounted for 30 per cent of all foreign direct investment (FDI) in the country'.[54] Therefore, the Russian Federation needs the European markets in order to supply its natural gas and oil and ensure its economic growth.

Diagram 1. Russian gas consumption and export in 2009, %[55]



According to the statistic data of the BP Statistical Review of World Energy 2010, the Russian Federation is the second largest natural gas exporter in the world (see Table 5). The country's proven natural gas reserves in 2009 were estimated to be 44.38 trillion cubic metres (tcm), which is almost one fourth of the world's proven natural gas reserves (see Table 4). As was mentioned above, Russia is the largest supplier of natural gas to the EU, providing more than 110 bcm of natural gas to European consumers in 2009 (see Table 6).[56] In addition to the EU Member States, the major buyers of Russian gas are Ukraine (24.15 bcm), Turkey (17.26 bcm), and Belarus (15.94 bcm).[57]

So far very little success has been achieved in securing energy supply diversification, thus EU-Russia energy relations remain critical and sensitive for the EU. Recognising the fact of their interdependence with regard to energy, in October 2000 at the EU-Russia Summit in Paris the **EU-Russia Energy Dialogue** was launched. The main issues of co-operation within the framework of the Energy Dialogue are security of supply, energy efficiency, pipeline infrastructure, investments and trade.[58] The purposes of the EU-Rus-

[54] See, e.g.: T. Singh, *The difficulties facing Russian oil and gas companies,* available at: http://www.cisoilgas.com/article/the-difficulties-facing-russian-oil-and-gas-companies/ (last visited 16.12.2010).

[55] Ibidem.

[56] It is important to note that in 2007 Russia exported about 140 bcm of natural gas to the European markets, but due to the economic crises and recession demand for natural gas in the EU has decreased.

[57] *BP Statistical Review of World Energy*, op.cit.

[58] See generally: *EU-Russia Energy Dialogue*, available at: http://www.euractiv.com/en/energy/eu-russia-energy-dialogue/article-150061 (last visited 16.12.2010).

sia Energy Dialogue are to formulate common interests with regard to the energy sector and to enhance the energy security of both parties to the Dialogue.

Table 5. Natural gas production in 2009[59]

No.	Country	Billion cubic metres	Share of total world production in 2009, %
1.	U.S.	593.4	20.1
2.	Russian Federation	527.5	17.6
3.	Canada	161.4	5.4
4.	Iran	131.2	4.4
5.	Norway	103.5	3.5
6.	Qatar	89.3	3.0
7.	China	85.2	2.8
8.	Algeria	81.4	2.7
9.	Saudi Arabia	77,5	2.6
10.	Indonesia	71.9	2.4

Within the framework of the EU-Russia Energy Dialogue several working levels exist:

- **The Permanent Partnership Council** (PPC), comprising the Russian Minister responsible for Energy, (presently Sergei Shmatko), the EU Energy Commissioner (currently Andris Piebalgs), and the Minister responsible for Energy from the current Presidency and the next Presidency.
- **The Energy Dialogue Joint Thematic Groups**, established in December 2008 after PPC. Currently, three Thematic Groups are functioning: Energy Strategies, Forecasts and Scenarios; Market Developments; and the Energy Efficiency Group.
- **The EU-Russia Industrialists Round Table**, which also deals with different energy issues and typically follows other Dialogue events.[60]

The year 2010 marks the 10th anniversary of the EU-Russia Energy Dialogue, so the experts and politicians have an opportunity to assess the ten

[59] Ibidem.

[60] Commission Press Release, *EU-Russia Energy Dialogue*, MEMO/09/12, Brussels, 19.03.2009.

years of energy co-operation between the EU and the Russian Federation. The truth is that the results of this co-operation leave much to be desired, although some progress has been achieved. The EU provides financial support to numerous energy projects in Russia and introduces new technologies that might be used in the energy sector. Russia has allowed some foreign companies[61] to participate in several projects that are dealing with energy extraction and production in the country.[62] However, it is quite a risky business for foreign companies to invest in the Russian energy sector, due to the lack of legal mechanisms to protect and defend their rights. Domestic law concerning energy in Russia needs to be improved in order to meet international requirements and standards.

Despite the fact that the EU energy market is one of the most transparent in the world, some Russian experts blame Europe for introducing certain legal measures that might restrict the access of the non-European energy companies to the EU energy infrastructure, in the event restrictions are deemed necessary for European security in the energy sector.[63] Among the real and latent risks to the Russian energy companies, Russian experts point to the limitation of investments from the Russian Federation in the EU energy sector and the introduction of forced competition.[64] Certainly such restrictions might shake Gazprom's position on the European markets, but despite these measures the EU still remains the most attractive energy market for Russia.

This author believes that although the EU and the Russian Federation cooperate in the energy sector within the framework of the EU-Russia Energy Dialogue, Russia cannot be called a reliable energy partner for the EU. In the first place, Russia's natural gas production is decreasing. In 2009 Russian gas companies (mainly, Gazprom[65]) produced 527.5 bcm of natural gas, twelve per cent less compared with the 601.7 bcm produced in 2008. In order to satisfy domestic demand, 389.7 bcm of the produced natural gas was used in the same year. Simple arithmetic thus demonstrates that in 2009 Russia had only 137.8 bcm of free natural gas, which obviously was not enough to meet

[61] In 2003 the British-Russian "TNK-BP" was created; in the same year the French energy company "Total" and Russian oil company "Rosnieft" established a joint venture.

[62] See, e.g.: M. Bodio, *Polityka energetyczna w stosunkach między Unią Europejską a Federacją Rosyjską w latach 2000–2008 (Energy policy in EU-Russia relations in 2000–2008)*, Warszawa 2009, p. 219–220.

[63] See, e.g.: А.Белый (A.Belyj), *После бума. Российские энергетические инвестиции в Европе в эпоху рецессии (After the Boom. Russian energy investments in Europe in the era of recession),* "Россия в глобальной политике" *(Russia in Global Politics)* No. 1/2009, p. 147–156.

[64] Ibidem.

[65] Gazprom produces approx. 85% of Russian natural gas.

the country's commitments according to its international contracts.[66] However, according to the Energy Strategy of Gazprom[67], the largest energy company in Russia, natural gas production will soon increase. In 2010 the company is planning to produce no less than 570 bcm of natural gas, in 2015 natural gas production should reach 610–615 bcm, and in 2020 planned production is 650–670 bcm.[68]

Secondly, Russia does not invest enough in the energy sector within the country, which can lead to an energy supply deficit. The energy sector in Russia needs about EUR 535 billion over the next twenty years, and the major part of these funds are expected to come from abroad.[69] Russian behaviour in its domestic energy sector can be described simply as the maximisation of energy revenues. Without significant investments and modernisation of its energy sector, the country will not be able to increase its natural gas production.[70] The Russian economy is greatly dependent on the purchase of natural gas by the EU Member States; the EU is the major buyer of Russian gas. According to IMF and World Bank data '*the oil and gas sector generated more than 60 per cent of Russia's export revenues (64 per cent in 2007), and accounted for 30 per cent of all foreign direct investment (FDI) in the country*'.[71]

Thirdly, Russia cannot guarantee uninterrupted natural gas supply to the European consumers, as several 'gas wars' with transit countries such as Ukraine and Belarus have demonstrated. At the moment, in order to deliver gas to consumers in the European Union, Turkey, and the Balkans about 80 per cent of Russian gas flows through Ukrainian territory, and about 15 per cent goes through Belarus.[72] The several gas conflicts that

[66] *BP Statistical Review of World Energy*, op.cit..

[67] The Russian energy market is monopolised by the state. All natural gas supplied to the EU comes from a Russian monopoly – OAO Gazprom. Gazprom is the state-controlled gas company that represents about 85% of the country's natural gas production. Furthermore, some high-ranking managers in Gazprom simultaneously hold posts in the Russian Government. For instance, the Energy Minister of the Russian Federation is a member of the Board of Directors of Gazprom.

[68] See, e.g.: *Gazprom on global energy markets*, available at: http://gazprom.ru/strategy/ exploration/ (last visited 16.12.2010).

[69] See, e.g.: *Prospects and Risks Beyond EU Enlargement. Eastern Europe: Challenges of a Pan-European Policy*, ed. I. Kempe, Opladen 2003, p. 267.

[70] See, e.g.: M. Burrows, F.G. Treverton, *Energy sector includes primarily oil but also natural gas*, "A Strategic View of Energy Futures. Survival" Vol. 49, No. 3/2007, p. 81.

[71] *Russian Energy Policy*, available at: http://www.globalsecurity.org/military/world/ russia/energy.htm (last visited 16.12.2010).

[72] See, e.g.: *Energy and Security. Towards a New Foreign Policy Strategy*, ed. J.H. Kalicki, D.L. Goldwyn, Washington DC 2005, p. 153.

appeared during the last few years in the context of Russia-Ukraine and Russia-Belarus relations seriously threatened European energy security and undermined the reliability of Russia as an energy partner for the EU. The interruption of natural gas supply to the EU Member States in January 2009 was the most prolonged, and led to an energy crisis in several EU states. Realising the great economic damage that was caused by these gas conflicts, European politicians invented a new instrument, called the Early Warning Mechanism, that aims to prevent and manage potential energy crises in the future. On 16 November 2009 in Moscow the Memorandum on an Early Warning Mechanism was signed between the EU and the Russian Federation.[73]

According to that Memorandum, the main purposes of an Early Warning Mechanism are:

1. '*an early evaluation of potential risks and problems related to the supply and demand of natural gas, oil and electricity; and*
2. *the prevention and rapid reaction in case of an emergency situation or a threat of an emergency situation*'.[74]

Within the framework of the Memorandum a working group, called the Expert Group of the Early Warning Mechanism, was created in order to provide recommendations and consultations concerning energy emergency situations. In addition, if such emergency situations appear in the future, a Special Monitoring Group can be created to follow and analyse the energy crisis.[75] The weakness of the Memorandum is that this document is not legally binding. Therefore, all consultations and information exchanges that will be carried out in the event of an emergency situation will depend only on the goodwill of both parties. In addition, the Memorandum obviously ignores the third parties that play a significant role in energy supply to the EU, in particular transit countries such as Ukraine and Belarus. If the representatives from these countries could take part in the aforementioned Expert Group of the Early Warning Mechanism, the management of any energy emergency situation would be much more effective.

[73] See generally: Commission Press Release, *The EU and Russia reinforce the Early Warning Mechanism to improve prevention and management in case of an energy crisis*, IP/09/1718, Brussels, 16.11.2009.

[74] See: *Memorandum on an Early Warning Mechanism in the Energy Sector within the Framework of the EU-Russia Energy Dialogue*, available at: http://ec.europa.eu/energy/international/bilateral_cooperation/russia/doc/reports/2009_11_16_ewm_signed_en.pdf (last visited 16.12.2010).

[75] Ibidem.

Since Russia has declared its intention to build an EU strategic partnership with regard to energy, the country has to, in the first place, ratify the Energy Charter Treaty. Yet on 20 August 2009 the Russian Federation officially announced that the country will not become a Party to the Energy Charter Treaty and the Protocol on Energy Efficiency and Related Environmental Aspects.[76] Russia is avoiding ratification of the legally-binding treaty because it would force the country to open its energy market to foreign companies, which would mean competition in the energy sector. The Treaty also contains provisions on the security of property rights of foreign investors and gives them the possibility to defend their rights in international courts. In the event of ratification of the Treaty, the investment climate in Russia would be substantially improved, which would seem very important for the country with regard to modernisation of its energy sector.[77]

In addition, Russia and the EU are in disagreement with regard to the Transit Protocol to the Energy Charter Treaty. The negotiation process concerning the Protocol began as early as 1998, but Russia and the EU have not been able to find a common ground for compromise. If Russia ratifies the Treaty and Transit Protocol, the country will be obliged to facilitate the transit of energy sources, particularly, natural gas and oil, from third countries across its territory.[78] The free transit of energy resources from the Caucasus and Central Asia through Russian territory would completely change the energy geopolitics in the region and would greatly contribute to the energy security of the EU and energy exporter countries such as Turkmenistan, Kazakhstan and Azerbaijan. The problem is that such a change is not in the Russian interest. Therefore, the Russian Federation will not ratify the Treaty in the near future, since it would undermine the country's energy domination in the region and shake the monopoly of the state in the energy sector which, as Russian politicians assert, might damage the Russian economy.

With regard to the natural gas supply from Russia to the EU, only a few Member States do not import gas from Russia. For this reason, there is an urgent necessity to formulate a common EU energy strategy towards Russia. The fact is however that the level of dependency within the EU on Russian gas supplies differs from country to country. The data in Table 6 shows that it is primarily Russia's neighbours and Eastern European countries that are dependent on Russian gas for more than 70 percent of their imported gas. For some countries, such as Finland, Bulgaria, Latvia, Lithuania, and Slovakia,

[76] See generally: Energy Charter Portal, at: http://www.encharter.org (last visited 16.12.2010).
[77] See generally: I. Kempe, op.cit., p. 268.
[78] See, e.g.: M. Bodio, op.cit., p. 204–205.

the Russian Federation is their sole natural gas supplier, which puts in great jeopardy not only the energy security but also the national security of these states. Furthermore, some Western European countries such as Austria, Germany and Italy are also highly dependent on gas imported from Russia (see Table 6 below).

It is important to keep in mind that Russia builds its external energy policy towards the EU on bilateral negotiations and bilateral long-term agreements with each European state. An additional problem with long-term contracts concerning the supply of natural gas are based on the 'take-or-pay' rule,[79] which certainly undermines the energy security of those EU Member States that are dependent on Russian natural gas supply. The EU is trying to review this formula in energy contracts with Russia, however very little success has been achieved so far.[80] Gazprom has succeeded in splitting the EU, keeping it from forming a strong common energy policy, by courting Germany, Italy, France, Greece, and Bulgaria with favourable bilateral deals.[81] This policy leads to a division within the EU and prevents the formulation of an effective energy policy towards Russia.

Another point is that the Russian government actively supports Gazprom, which pursues an aggressive policy not only in the EU internal energy market and in transit countries, but also in the Caucasus as well as in Central and South Asia. For instance, Gazprom blocked Iran from creating the necessary infrastructure to supply gas to the EU because, obviously, if this occurred Iran would become a competitor with Russia. Russia bought almost the entire energy sector in Armenia in order to prevent the transportation of Iranian gas. Furthermore, the isolation of Iran due to international sanctions does not allow Iran to get enough investment from Western countries to become a real competitor to Russia in gas exports.[82] However, Russia and Iran are becoming energy partners and, what is more important, the presence of Russian gas companies in Iran's energy sector is increasing.

In addition to the already existing Blue Stream pipeline, Russia plans to build the South Stream pipeline, which will transport Russian natural gas to Italy, Bulgaria, the Balkans and to Central Europe, bypassing the 'problem' transit countries like Ukraine and Turkey (see Map 1). In 2007 Gazprom signed

[79] The 'take-or-pay' rule means that the importing country either takes a certain amount of natural gas according to the contract with Russian energy companies (mainly, Gazprom), or pays a penalty.

[80] See, e.g.: M. Bodio, op.cit., p. 216–217.

[81] See generally: N. Norling, op.cit.

[82] See, e.g.: P.P. Амстердам (R.R. Amsterdam) *Газпромизация европейской энергетической безопасности (The Gazpromization of European Energy Security)*, available at: http://www.inosmi.ru/translation/239895.html (last visited 16.12.2010).

Table 6. Trade movements in 2009 by gas pipeline (billion cubic metres)[83]

EU Member States[84]	Russian	Federation Norway	Holland	Algeria	Germany	United Kingdom	Belgium	Denmark	Spain	Total imports
Austria	5.44	1.8	–	–	1.46	–	–	–	–	**7.98**
Belgium	–	6.39	6.17	–	0.80	1.65	–	–	–	**15.01**
Bulgaria	2.64	–	–	–	–	–	–	–	–	**2.64**
Czech Republic	6.40	3.00	–	–	–	–	–	–	–	**9.40**
Estonia	0.71	–	–	–	–	–	–	–	–	**0.71**
Finland	4.10	–	–	–	–	–	–	–	–	**4.10**
France	8.20	15.95	6.40	–	3.30	0.30	1.10	–	0.74	**35.99**
Germany	31.50	30.08	22.40	–	–	3.70	–	1.14	–	**88.82**
Greece[85]	2.05	–	–	–	–	–	–	–	–	**2.55**
Hungary[86]	7.20	–	–	–	0.70	–	–	–	–	**8.10**
Ireland	–	–	–	–	–	5.08	–	–	–	**5.08**
Italy[87]	20.80	5.92	7.51	21.37	1.40	0.24	–	–	–	**66.41**
Latvia	1.19	–	–	–	–	–	–	–	–	**1.19**
Lithuania	2.77	–	–	–	–	–	–	–	–	**2.77**
Luxembourg	–	–	–	–	0.60	–	0.70	–	–	**1.30**
Holland	4.26	7.60	–	–	2.50	1.20	–	1.65	–	**17.21**
Poland[88]	7.15	–	–	–	0.50	–	–	–	–	**9.15**
Portugal	–	–	–	1.33	–	–	–	–	0.26	**1.59**
Romania	2.05	–	–	–	–	–	–	–	–	**2.05**
Slovakia	5.40	–	–	–	–	–	–	–	–	**5.40**
Slovenia	0.51	–	–	0.38	–	–	–	–	–	**0.89**
Spain[89]	–	1.91	–	6.94	–	–	–	–	–	**8.99**
Sweden	–	–	–	–	0.09	–	–	1.22	–	**1.31**
UK	–	23.70	6.44	–	–	–	0.74	–	–	**30.88**
Total exports	**112.37**	**96.35**	**48.92**	**30.02**	**11.35**	**12.17**	**2.54**	**4.01**	**1.00**	**329.52**

[83] *BP Statistical Review of World Energy*, op.cit.

[84] This list of the EU Member States does not include three countries, i.e. Malta, Denmark and Cyprus.

[85] Greece imported 0.50 bcm of natural gas from Azerbaijan in 2009.

[86] In 2009 Hungary also imported 0.20 bcm of natural gas from France.

[87] Additionally, in 2009 Italy imported 9.17 billion cubic meters of natural gas from Libya by pipeline.

[88] In 2009 Poland imported 1.50 bcm of natural gas from Uzbekistan.

[89] In 2009 Spain additionally imported 0.14 bcm of natural gas from France.

a *Memorandum of Understanding* (MoU) with Italy's ENI to build the 900-km gas pipeline.[90] On 15 May 2009 in Sochi, the second Addendum to the MoU between Gazprom and ENI was signed by Gazprom Management Committee Chairman Alexey Miller and ENI Chief Executive Officer Paolo Scaroni. The main purposes of the Addendum are, first of all, to increase the output of the South Stream gas pipeline from 31 to 63 billion cubic metres a year, and, secondly to set the rules concerning gas marketing issues.[91]

Map 1. South Stream pipeline and Nabucco pipeline projects[92]

The South Stream pipeline seems to be a political project rather than an economic one. First of all, Russia decided to build this pipeline after the Nabucco pipeline project was announced. Secondly, the South Stream pipeline seems to be more expensive than the EU-backed pipeline project. If the estimated investment costs for the Nabucco project are approximately EUR 7.9 billion[93], the investment required to build the South Stream pipeline is estimated by experts to be between EUR 19 billion and EUR 24 billion.[94] These high costs for the South Stream pipeline can be explained by the fact that

[90] See, e.g.: *Russia, Serbia sign South Stream gas pipeline deal,* available at: http://en.rian.ru/russia/20080225/99998830.html (last visited 16.12.2010).

[91] See, e.g.: Press Release, *Gazprom delegation visits France*, available at: http://www.gazprom.com/press/news/2010/june/article99699/ (last visited 16.12.2010).

[92] The South Stream Map, at: http://www.acus.org/files/u65/SouthStreamMap.gif (last visited 16.12.2010).

[93] See generally: Nabucco Gas Pipeline, available at: http://www.nabucco-pipeline.com/portal/page/portal/en/commercial/overview (last visited 16.12.2010).

[94] *Russia's South Stream natural gas pipeline*, 15.05.2009, available at: http://www.reuters.com/article/OILPRD/idUSLF36283120090515 (last visited 16.12.2010).

a significant part of the pipeline will run under the Black Sea, demanding very expensive technology.

Italy is the main partner of Russia in the South Stream gas pipeline project, but in order to implement these ambitious plans a few more European states were needed as transit countries for Russian gas to Europe. After negotiations with Russia, on 28 February 2008 Hungary joined the international South Stream gas pipeline project. A Russian-Hungarian intergovernmental agreement on co-operation on the transit gas pipeline across Hungary makes Hungary a very important country in the EU in terms of energy security.[95] In 2008 Russia signed the Intergovernmental Agreement on engagement into the South Stream gas pipeline project with EU members such as Bulgaria and Greece. Currently Bulgaria has officially joined the Russian-Italian pipeline project. In May 2009, a Co-operation Agreement within the framework of implementation of the South Stream project was signed between Gazprom and Bulgarian Energy Holding.[96] On 14 November 2009 Russia signed an Intergovernmental Agreement with another EU Member States, Slovenia, on '*participation in construction of the South Stream gas pipeline section in that country*'.[97] Two weeks later, on 27 November Gazprom signed the Memorandum of Understanding with Electricité de France (EDF). According this Memorandum, the largest energy company in France agreed on its potential engagement in the construction of the offshore section of the South Stream gas pipeline.[98] In addition, Intergovernmental Agreements concerning the South Stream gas pipeline were concluded with such non-EU Member States as Croatia and Serbia. Currently, Gazprom is conducting negotiations with Macedonia, so probably that country will also soon join the South Stream project.

Step by step, using bilateral negotiations, Gazprom has involved five EU Member States in the South Stream pipeline project. This will certainly undermine the EU backed Nabucco natural gas pipeline project, which is regarded as an alternative route for the delivery of natural gas to the European market.

There is another ambitious gas pipeline project which is expected to deliver natural gas from Russia to the EU – the Nord Stream. This is a joint

[95] See, e.g.: Press Release, *Gazprom and MFB create South Stream Hungary Zrt joint venture company*, available at: http://www.gazprom.com/press/news/2010/january/article75681/(last visited 16.12.2010).

[96] See, e.g.: Gazprom Portal, South Stream, available at: http://www.gazprom.com/production/projects/pipelines/south-stream/ (last visited 16.12.2010).

[97] See, e.g.: South Stream Portal, available at: http://south-stream.info/index.php?id=21&L=1 (last visited 16.12.2010).

[98] Ibidem.

project between Gazprom and three major European companies: BASF/Wintershall Holding AG, E.ON Ruhrgas AG and N.V. Nederlandse Gasunie. Through a 1220 kilometer-long offshore natural gas pipeline, Russian gas will be delivered underneath the Baltic Sea from Vyborg in Russia to Greifswald in Germany. Annually the Nord Stream is expected to transport approximately 55 bcm of natural gas from the Russian Federation.[99] Russia is attaching great importance to this project because the realisation of the Nord Stream, bypassing such transit countries as Belarus, Ukraine, Poland and the Baltic states, will strengthen Russia's position as major energy supplier in Europe. However, there are also some tensions concerning the Nord Stream pipeline among the EU Member States. Germany has a great interest in this new pipeline project, while the Baltic States and Poland strongly oppose the building of the Nord Stream because it will undermine their position in the EU as transit countries.

Thus it can be seen that the bilateral negotiations and agreements that were signed between Russia and the aforementioned EU states concerning the Nord Stream and South Stream pipelines further the EU's dependence on the Russian natural gas supply, and more importantly, complicate the formulation of a common European foreign policy in the energy sector.

4. Azerbaijan

Although Azerbaijan is not so rich on natural gas resources, the country's natural gas reserves can be compared with such Central Asian states as Uzbekistan and Kazakhstan (see Diagram 2). Azerbaijan may contribute to EU energy security if two conditions are fulfilled: the Nabucco pipeline has to be built, and Azerbaijan has to increase its natural gas production (see Table 7). Although the country's natural gas production has increased from 5.2 bcm in 2005 to 14.8 bcm in 2009,[100] it is still not enough to become a reliable energy exporter country for the EU. However, the situation with regard to energy production within the country might be significantly changed in the future, because on 7 October 2010 the State Oil Company of the Republic of Azerbaijan (SOCAR) signed a new production sharing agreement (PSA) with the British energy company BP. According to the PSA, the companies will start the exploration and development of the Shafag-Asiman structure in the Azerbaijan sector of the Caspian Sea.[101] If this joint project succeeds, Azer-

[99] See generally: Nord Stream Portal, at: http://www.nord-stream.com/en.html?no_cache=1 (last visited 16.12.2010).

[100] *BP Statistical Review of World Energy*, op.cit..

[101] See, e.g.: *BP and SOCAR Sign Shafag-Asiman PSA*, available at: (last visited 16.12.2010).

baijan might become one of the largest natural gas producers in the region, which will undermine the position of Russia and could contribute to the EU's energy security.

It is important to note that Azerbaijan already supplies its neighbouring countries with natural gas. Through the new South Caucasus pipeline, exports of Azeri natural gas began to flow to Georgia in March 2007 and to Turkey in July 2007. Turkey then began re-exporting Azeri gas to Greece after a new pipeline connecting Turkey and Greece was opened in November 2007.[102] It is important to note that within the framework of the European Neighbourhood policy, the EU is giving financial support to Azerbaijan's energy sector. The main objectives of this investment are to enhance the country's energy security by diversifying supplies, and to ensure energy sustainability.[103] In addition, Azerbaijan can be a key partner for the EU not only as an energy supplier, but also as a transit country. The EU is highly interested in getting, for example, Turkmen natural gas and if this should become possible, Europe will desperately need Azerbaijan to transport this gas to the European markets, bypassing Russia.

5. Gas politics in Central Asia: Turkmenistan, Kazakhstan, Uzbekistan

In 2004, having realised its interest in Central Asia, the EU initiated a 'European Union-Central Asia' framework for regional dialogue. In 2006 a long-term EU strategy on the Central Asian region was elaborated in order to strengthen the European position in this part of the world and to contribute to peace and prosperity in these countries.[104] After the EU Strategy was introduced, the European Commission presented two documents: Regional Strategy Paper for assistance to Central Asia over the period 2007–13 (RSP), and a more detailed Central Asia Indicative Programme (IP) for the period from 2007 until 2010.[105] The projects under the RSP framework receive financial

[102] See, e.g.: *International Energy Outlook 2010. Natural Gas*, available at: http://www.eia.doe.gov/oiaf/ieo/nat_gas.html (last visited 16.12.2010).

[103] See: *The European Commission Decision on the ENPI Annual Action Programme in favour of Azerbaijan*, at: http://ec.europa.eu/europeaid/documents/aap/2007/ec_aap-2007_az_en.pdf (last visited 16.12.2010).

[104] See: *European Union and Central Asia: Strategy for a New Partnership, prepared by the General Secretariat of the Council*, Brussels 2007.

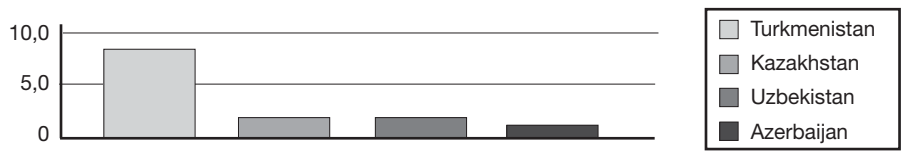
[105] See, e.g.: J. Boonstra, J. Hale, *EU Assistance to Central Asia: Back to the Drawing Board?*, "EUCAM Working Paper" No. 8/2010, available at: http://www.eucentralasia.eu/fileadmin/user_upload/PDF/Working_Papers/WP8-EN.pdf (last visited 16.12.2010).

support from the EU: over a seven-year period the Central Asian countries will receive EUR 719 million through the new EU Development Cooperation Instrument.[106]

EU politicians declared that for reasons of stability, security, development and energy security, the European Union must now be more effective and more visible in Central Asia. Furthermore the Commission, on behalf of the EU, continues to develop bilateral relations with key energy partners in the region. For instance, a Memorandum of Understanding on energy was concluded between the EU and Kazakhstan, as well as projects to enhance energy relations with other countries in the region, especially with Turkmenistan and Uzbekistan.

The Central Asian states such as Turkmenistan, Kazakhstan, and Uzbekistan are rich in natural gas resources. According to statistics, at the end of 2009 the proven natural gas reserves in all these countries taken together are 11.60 trillion cubic metres, which is 6.2 per cent of the world's proven natural gas reserves.[107] Among the aforementioned states, Turkmenistan possesses the largest natural gas reserves in the region: its natural gas reserves were estimated to amount to 8.10 trillion cubic metres, or 4.3 per cent of the world's proven natural gas reverses (see Diagram 2).[108]

Diagram 2. Proven natural gas reserves of the Central Asian states at the end 2009, trillion cubic metres[109]



In assessing the data concerning the consumption and production of natural gas by these Central Asian states, it is important to note that the largest natural gas producer in the region in 2009 was Uzbekistan (see Table 7). But although the natural gas production of Uzbekistan has been constantly increasing over the last ten years, it consumes almost 80 per cent of its gas production. For this reason, Uzbekistan cannot be regarded by the EU as a nat-

[106] Ibidem.
[107] *BP Statistical Review of World Energy*, op.cit.
[108] Ibidem.
[109] Ibidem.

ural gas supplier in a short-term perspective. It is also important to note that the Russian Federation is the main importer of Uzbek gas.[110] Uzbekistan also exports its natural gas to Kazakhstan, Kyrgyzstan, and Tajikistan.[111]

Although the gas industry in Uzbekistan belongs to the state-controlled company Uzbekneftegas, Gazprom as a foreign company has quite strong position in the Uzbek energy sector. The legal basis for the co-operation between these countries in energy sector is set forth in an Agreement on Strategic Partnership in the Gas Industry signed by Uzbekneftegas and Gazprom in December 2002. This document gives Gazprom the right to participate in the natural gas production projects that will take place in Uzbekistan, as well as to co-operate in the development of a gas transportation system in Uzbekistan and the transportation of Central Asian gas through its territory. Additionally, the agreement guarantees to the Russia monopolist purchases of Uzbek gas until 2012.[112]

Kazakhstan is also an important natural gas producer in Central Asia (see Table 7) but currently the country plays its most crucial role as a transit state for Turkmen and Uzbek gas to Russia.

Table 7. Natural gas production and consumption of the Central Asian states in 2009, billion cubic metres[113]

No.	Central Asian States	Production	Consumption	Balance
1.	Turkmenistan	36.4	19.8	+ 16.6
2.	Uzbekistan	64.4	48.7	+ 15.7
3.	Kazakhstan	32.2	19.6	+ 12.6
4.	Azerbaijan	14.8	7.7	+ 7.1

Turkmenistan possesses the largest natural gas reserves in the region (see Diagram 2) and is in the top ten countries in the world in terms of proven reserves of natural gas (see Table 4). However, the Turkmen natural gas production in 2009 was reduced by 44.8 per cent relative to 2008.[114] The reason

[110] The Russian gas company Gazprom is buying 7 bcm of Uzbek natural gas.

[111] See, e.g.: А. Щеглов (A. Scheglov), *Туркмения может начать поставки газа в ЕС (Turkmenistan can start to deliver natural gas to the EU)*, available at: http://www.gundogar.org/?01304732500000000000011000000 (last visited 16.12.2010).

[112] See, e.g.: O. Sidorov, *Central Asian game of Gazprom: new horizons*, available at: http://eng.gazeta.kz/art.asp?aid=71067 (last visited 16.12.2010).

[113] *BP Statistical Review of World Energy*, op.cit.

[114] If in 2008 Turkmenistan has produced 66.1 bcm of natural gas, in 2009 it was only 36.4 bcm.

was an explosion on the natural gas pipeline 'Middle Asia-Centre 4', which delivered natural gas to Russia. The Turkmen government blamed Russia, arguing that its failure to use the full amount of natural gas in the pipeline led to the explosion. Due to the political conflict between the two countries, Turkmenistan did not resume natural gas supply to Russia even after repair of the pipeline. The crisis lasted over nine months, and only on 9 January 2010 did the Turkmen government decide to renew gas exports to its neighbour.[115]

The problem in Russia-Turkmenistan relations started even before this explosion took place. Gazprom was planning to become a main investor and partner in a new Turkmen project – building of a Trans-Turkmen natural gas pipeline that would connect gas reserves from the Eastern to Western part of the country. However, the Turkmen government did not give its permission to Gazprom's participation in this strategic energy project, partly because Russia made a demand on Ashgabat for a guarantee that the country would not sell this gas to Europe.[116]

Gazprom[117] was the major importer of Turkmen natural gas, but during the long-lasting energy conflict Turkmenistan made great efforts to diversify its natural gas export structure. In order to secure its energy sector Turkmenistan brought into operation two additional natural gas pipelines, one to Iran and the other to China.[118]

Up until 2009 Turkmenistan supplied its natural gas via pipelines only to Russian and Iran. In 2009 the Turkmen-Iranian gas pipeline Korpedzhe-Kurt-Kui supplied Iran with 5.77 billion cubic metres of Turkmen gas,[119]

[115] See, e.g.: И. Томберг (I. Tomberg), Туркменский газ и российско-китайский баланс (Turkmen gas and Russian-Chinese balance), available at: http://www.opec.ru/1147353.html (last visited 16.12.2010).

[116] See, e.g.: M. Falkowski, *Azja Centralna (The Central Asia)*, "Nowa Europa Wschodnia" *(New Eastern Europe)* No.3–4/2009, p. 6.

[117] Gazprom is the primary exporter of Turkmen gas, mainly to the European market. According to the three-year contract that was concluded for the period 2007–2010 between Gazprom and Turkmenistan, the Russian gas company is obliged to buy 50 bcm of Turkmen natural gas each year. Furthermore, Gazprom can increase its gas purchase from Turkmenistan to 78 bcm, with the exclusive right to buy all available natural gas in the country. Due to the economic crisis Gazprom wanted to reduce its gas import from Turkmenistan, which caused the energy conflict between the two countries. It is also important to note that Gazprom is not only the largest exporter of Turkmen gas, but it also has exclusive rights to transport Turkmen gas throughout the territory of other states. In January 2006, according to the Agreement between Gazprom and Uztransgas, Gazprom became the transit operator for all Turkmen gas on the territory of Uzbekistan, at least until 2010.

[118] See, e.g.: В. Саркисян (V. Sarkisian), *Туркменистан-Иран-Армения: новые возможности для газоэкспорта (Turkmenistan-Iran-Armenia: new opportunities for gas export*), available at: http://www.regnum.ru/news/1227104.html (last visited 16.12.2010).

[119] *BP Statistical Review of World Energy*, op.cit.

although the pipeline can handle 10 bcm per year with additional compression. Now Turkmenistan is planning to increase its natural gas supply to Iran to 12.5 bcm and to export annually about 40 bcm through the new pipeline to China.[120]

The EU is also highly interested in Turkmen natural gas, which will be needed in the future in order to feed into the Nabucco gas pipeline. The truth is, however, that despite the fact that the European Commission signed a Memorandum of Understanding on a strategic energy partnership with Turkmenistan in April 2008, there still many obstacles in EU-Turkmen relations. The lack of democracy, human rights abuses, absence of free mass media and persecution of political opponents by the Turkmen government does not allow for the EU be fully engaged in energy co-operation with this country. Moreover, the EU did not conclude the Partnership and Co-operation Agreement (PCA) with Turkmenistan because its enforcement was blocked by the European Parliament due to political reasons.[121]

The Central Asian states (Turkmenistan, Uzbekistan and Kazakhstan) are seeking to increase their natural gas production in order to export more. The main problem is that their natural gas transportation system is primarily connected with Russia; therefore these countries have a very limited opportunity to diversify their natural gas supply and to negotiate gas prices with the Russian monopolist Gazprom, currently the major purchaser of Central Asian natural gas.

Gazprom is pursuing a very active and aggressive policy in the Central Asian states; in fact, the company has become the exclusive exporter of the natural gas from Turkmenistan, Uzbekistan, and Kazakhstan to the European market. Currently, Gazprom is facing a new challenge with regard to Central Asian gas. The Russian monopolist used to buy the Central Asian gas at low prices, allowing it to reap a huge margin on the price differential, but the situation has now changed. Beginning in 2009, Turkmenistan, Kazakhstan, and Uzbekistan are selling their natural gas to Russia at European tariffs. This decision was taken in March 2008 by mutual agreement of the three Central Asian states and Gazprom.[122] Furthermore Gazprom, in accordance with international agreements, must buy a certain volume of the Central Asian gas (minimum 60 bcm annually) at a price that has doubled since the start of

[120] V. Sarkisian, op.cit.

[121] See e.g.: J. Boonstra, *The EU-Turkmenistan energy relationship: difficulty or opportunity?*, available at: http://www.fride.org/publication/812/the-eu-turkmenistan-energy-relationship:-difficulty-or-opportunity (last visited 16.12.2010).

[122] See, e.g.: *No more cheap Central Asian gas for Gazprom*, available at: http://enews.fergghana.ru/article.php?id=2339 (last visited 16.12.2010).

2009. In 2008 Gazprom paid to Turkmenistan, Uzbekistan and Kazakhstan between USD 140 and USD 160 per thousand cubic metres (tcm) of natural gas, whereas in January 2009 the average price for Gazprom was USD 340 per tcm. However, the reduction of Gazprom's profit is the price for its monopolist position in the Central Asian energy market.[123]

The entire gas pipeline system of Central Asia, with few exceptions, is a nightmare of hundreds of thousands of kilometres of crisscrossing tubes, including the Central Asia-Centre main trunk of four pipelines, supplying gas to Russia and Europe. The EU is trying to get Central Asian gas, but at the moment it cannot compete with Russia, which enjoys a dominant position in the energy sectors of the aforementioned states. There is also an additional issue: these countries are trying to attract additional investments to repair and develop their natural gas infrastructure. For a number of reasons, the throughput capacity of the existing pipelines is constantly decreasing. The Central Asia-Centre trunk system is currently capable of transporting only half of the volume it was designed for, with an annual capacity of 90 bcm.[124] Although Gazprom is a major natural gas exporter, it does not invest enough in the Central Asian gas transportation system. Given this, European energy companies can help these countries to develop their gas infrastructure, but in exchange they have to demand long-term contracts that will guarantee natural gas supply to Europe without the mediation of Russia.

It is important to mention that the EU is already implementing some projects in Central Asia. For instance, within the framework of the INOGATE programme the EU has provided EUR 1.5 million for that timely and much needed project. In addition, the European Union is providing know-how and technology to Central Asian gas producers in order to detect and prevent leakage in gas pipelines.[125]

The EU energy strategy towards the Central Asian gas supplier countries has to be more active if the EU hopes to get their natural gas for European consumers. In order to compete with Russia, which already has a dominant position in the energy sector of the Central Asian states, the EU should propose to these states' more favourable conditions for gas purchases and building alternative gas pipeline systems.

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[123] See, e.g.: D. Bochkarev, *'European' Gas Prices: Implications Of Gazprom's Strategic Engagement With Central Asia*, available at: http://pipelineandgasjournal.com/%E2%80%9Ceuropean%E2%80%9D-gas-prices-implications-gazprom%E2%80%99s-strategic-engagement-central-asia?page=show (last visited 16.12.2010).

[124] See, e.g.: IEA Directorate of Global Energy Dialogue, *Perspectives on Caspian Oil and Gas Development*, "International Energy Agency Working Paper Series", December 2008, p. 18.

[125] Ibidem.

6. Turkey

Turkey has no natural gas resources; the country must import natural gas in order to satisfy its growing domestic demand. Turkey receives natural gas mainly from Russia (66 per cent of all its gas imports), but also from Iran and Azerbaijan.[126] In addition, Turkey imports about 6 bcm of LNG annually, the main LNG suppliers being Algeria and Nigeria.[127]

Despite the absence of natural gas resources, Turkey is strategically important to the EU's energy security due to its location. Turkey is situated right in the middle of the biggest natural gas deposits in the world, namely the Caspian and Gulf regions. Therefore, Turkey has great potential to become very important for the European market as a transit country for oil and gas. In addition, Turkey connects the EU with the Middle East and is a significant political player in the Mediterranean region.[128]

Due to its unique transit location, Turkey should become a strategic energy partner for the EU in order for it to diversify its energy supply and decrease its energy dependence on the Russian Federation. Moreover, Turkey is not just an EU neighbouring country. In 1963 Turkey became an associate member of the EEC and since 2005 the country participates in full membership negotiations with the European Union.[129] Energy is one of the priorities in the EU-Turkish relations, and the EU regards Turkey as a strategic partner in the energy sector. It is important to note that in 2003 Turkey signed the Athens Memorandum and incurred obligations to participate in the creation of a regional electricity and natural gas market in South East Europe and to become a partner of the negotiation process leading to an Energy Community Treaty.[130]

European politicians have stressed many times that Turkey is a vital partner for the Nabucco gas pipeline project. The Nabucco pipeline is expected to deliver natural gas from the Caspian Sea region and the Middle East to the European market through Turkey and the Caucasus region. The Turkish government realises that the EU needs it for the Nabucco pipeline, and has therefore agreed to be a partner in this project. At the same time, Turkey pursues

[126] In 2009 Turkey imported 17.26 billion cubic metres from Russia, 5.25 bcm from Iran, and 4.96 bcm from Azerbaijan.

[127] *BP Statistical Review of World Energy*, op.cit.

[128] K. Mecklenburg, *EU-Turkey Relations in the field of energy*, European Parliament, Policy Department 2006.

[129] See generally: *EU-Turkey relations*, available at: http://ec.europa.eu/enlargement/candidate-countries/turkey/eu_turkey_relations_en.htm (last visited 16.12.2010).

[130] K. Mecklenburg, op.cit.

its own interests and demands more control on the pipeline as well as below-market prices for natural gas for its domestic market.[131]

The energy co-operation and participation of Turkey in the Nabucco pipeline project will benefit both the EU and Turkey. However, in order to become a reliable energy partner for the EU, the Turkish government still has to introduce a number of changes into its energy sector. The main reforms should be concentrated on the introduction of '*clear and enforceable rules on gas transmission, the liberalisation of Turke''s domestic market, at least for gas, and the increase of investment on infrastructure, most importantly in gas storage*'.[132]

Among the significant achievements in the EU-Turkish energy co-operation was the construction of the Turkey-Greece gas interconnector (gas pipeline) that was completed in September 2007. This project was one of the priority projects of the EU and was partly financed by the EU through the Trans-European networks funds.[133] There is no doubt that Turkey plays a very important role in the diversification of natural gas supplies and ensuring European energy security. Therefore, the EU has to enhance its energy co-operation with Turkey in order to encourage the Turkish government to contribute to regional and European energy security.

7. China

The rapid economic growth in China has resulted in a significant increase in its demand for energy. Despite the fact that China is heavily dependent on coal, and natural gas represents a small proportion of China's energy sector, the country's natural gas consumption is growing rapidly (from 19.5 bcm in 1997 to 88.7 bcm in 2009),[134] much faster than its coal and oil consumption.[135] For this reason, China is highly interested in natural gas supplies from gas-rich countries, particularly Russia and the Central Asian states. No doubt the aggressive energy policy of China will constitute a challenge to future European energy security. China is pursuing bilateral energy relationships with

[131] C. Bohlen, *Turkey uses gas pipe as leverage in EU talks*, available at: http://www.iht.com/articles/2008/04/22/europe/letter.php (last visited 16.12.2010).

[132] Speech by EU Commissioner O. Rehn, *Turkey as an energy hub for Europe: prospects and challenges*, available at: http://www.europa-eu-un.org/articles/en/article_8535_en.htm (last visited 16.12.2010).

[133] K. Mecklenburg, op.cit.

[134] *BP Statistical Review of World Energy*, op.cit.

[135] G. Bahgat, *China's Energy Policy: Strategic Implications*, „Middle East Economic Survey" No. 3/1/2007.

energy-rich countries, and Chinese companies are at present quite active in West and North Africa, Iran, and Iraq (before the U.S. military campaign began).[136] Chinese investments, primarily in the energy sector in Africa but also in Latin America, have totalled USD 7 billion.[137] Furthermore, China pursues closer energy co-operation with the Central Asian states and, of course, Russia, naturally with particular interest in Russia's gas-rich Far East.

China is among the countries that are looking for rapprochement with Iran.[138] At the moment, there is no threat to the EU in the Chinese-Iranian energy co-operation, but a problem may arise if the international situation changes and the EU will need Iran's natural gas resources in order to meet its demand. If China, with its growing gas demands, gains access to Iranian natural gas reserves, there may not be much gas left for European energy market.

In 2006 China concluded tentative agreements with Kazakhstan, Turkmenistan and Uzbekistan on the provision of natural gas. According to these agreements, China will buy Central Asian natural gas at a volume of 90 bcm annually.[139] As was mentioned above, in 2009 the Turkmenistan-China natural gas pipeline was officially opened. The pipeline carries natural gas from eastern Turkmenistan through the territory of Uzbekistan and Kazakhstan to China's northwestern region Xinjiang. The 1,833-kilometer long pipeline will deliver 40 bcm of natural gas annually to China by 2013, which is about half of China's current demand.[140] The Turkmenistan-China natural gas pipeline is great achievement for China and the Central Asian States in terms of enhancing their energy security. It is important to note that great efforts have been by all these countries in order to realise this project, and as a result China has entered the Central Asian energy market ahead of the European Union countries. It certainly undermines the EU-backed Nabucco pipeline project, because Turkmenistan was projected to be country number one in terms of natural gas supplier for the pipeline that is expected to deliver natural gas to the EU and bypass Russia.

What is more, China's position in the Central Asian region in the financial realm is becoming increasingly important. Chinese investments have increased rapidly since 1991, when the Central Asian states were recognised by China, to the present time. The China National Petroleum and Natural Gas

[136] J.H. Kalicki, op.cit., p. 282.

[137] M. Burrows, op.cit., p. 86.

[138] *The Black Sea Between the EU and Russia. Security, Energy, Democracy*, op.cit., p. 35.

[139] A. Scheglov, op.cit.

[140] See: *China president opens Turkmenistan gas pipeline*, 14.12.2009, available at: http://news.bbc.co.uk/2/hi/8411204.stm (last visited 16.12.2010).

Corporation, CNPC, is one of the most important investors in Central Asia. China is investing mainly in regional energy infrastructure in order to deliver gas to the rapidly growing Chinese natural gas market.[141] These efforts by China to strengthen its position in the Central Asia region in order to satisfy its rapidly growing energy demands are quite understandable. The problem is that China has become a direct competitor to the EU in the struggle for Central Asian gas. Hopefully, if the EU intensifies its energy policy in Central Asia and enhances the negotiation process with these countries, there will still be some Central Asian gas left for the European market.

Conclusions

EU energy security is becoming more and more influenced by EU external relations with non-EU countries. For this reason, in order to ensure European energy security, particularly, natural gas supplies, the energy issue has to be integrated into EU foreign policy. Furthermore, the EU has to introduce a common energy security strategy towards non-EU states, such as Turkey and the Central Asian states that will contribute to the energy security of the EU as a whole and all Member States individually. The reality is that currently each Member State pursues its own external energy policy in order to ensure its national energy security, seemingly unaware of the fact that the common challenges in the energy sector can best be resolved only by joint endeavours.

Taking into account current trends towards reduction in natural gas imports by the majority of the EU Member States, the long-term contracts with foreign natural gas exporters, particularly from the Russian Federation, have to be reviewed by the EU. In addition, the EU has to estimate the impact and possible need to construct the South Stream and Nord Stream pipelines with the aim of regulating the demand for natural gas within the Union in next decade.

The diversification of energy supplies is crucial for ensuring the energy security of the EU, and so diversification of the EU's energy supply, and decreasing its dependence, especially on Russia, should be the main priorities of the European external energy policy. Furthermore, the EU has to pursue a more active foreign policy towards present and potential natural gas supplier and transit states.

[141] See generally: K.-W. Paik, V. Marcel, G. Lahn, J.V. Mitchell and E. Adylov, *Trends in Asian NOC investment abroad*, available at: http://www.cornellcaspian.com/pub/ 0104swanstrom_china.htm (last visited 16.12.2010).

The EU-Russia energy relations in the framework of the Energy Dialogue need to be made more effective with regard to energy co-operation between both partners. For a variety of reasons described above, Russia still cannot be recognised by the EU as a reliable energy partner. In fact, while both the EU and Russia seek to decrease their dependence on each other and to diversify their energy supply, if the South Stream and Nord Stream gas pipeline projects will be constructed, the level of energy interdependency will only increase.

The regional natural gas market is continually becoming ever more globalised and politicised. Therefore, in building its energy strategy and policy, the EU has to take into account the growing natural gas demand in countries that are quite far away from Europe, particularly China. In addition, the EU has to make enormous efforts in order to gain access to the Central Asian natural gas resources and decrease its dependence on Russia.

The success of the EU in the future, both as a political and economic project, will depend to a great extent on its ability to formulate and implement an effective common energy foreign policy in order to enhance the energy security of all Member States.