

**Impact of Russia's foreign energy policy
on small European states' security**

Case study: the Baltic States

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Declaration

I hereby declare that this dissertation is my own original work.

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31 July 2009, Riga, Latvia

Abstract

Russia is the main energy supplier for Europe and Europe is the biggest market for Russian energy sources. This interdependency is the main cause for complicated energy relations between the EU, that is struggling to merge divergent interests of its 27 unequal members on one side, and Russia, that has gained new confidence in its energy power, on the other.

It is particularly difficult for small, economically and politically weak European states that are heavily dependent on Russian energy sources, like the Baltic countries, to face the global energy challenges and increasing Russian energy leverage. During the last years Russia has been using its energy as political weapon and applied coercive approach towards the countries of the ex-Soviet block, causing threat to their national security. These assertive actions have urged them and the European Union to reform their Energy Strategies and come up with several projects and activities aimed at decreasing Russia's growing influence in the region.

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List of abbreviations and acronyms

AES- alternative energy sources

Bcm- billion cubic meters

BPS- Baltic Pipeline System

CEE- Central and Eastern Europe

CIS- Commonwealth of Independent States

CO₂- carbon dioxide

EC- European Commission

EEA- European Economic Area

EIA- Environmental Impact Assessment

EU- the European Union

EBRD- European Bank of Reconstruction and Development

GHG- green house gas

GDP- Gross Domestic Product

HELCOM- the governing body of Helsinki Convention

IEA- International Energy Agency

KGB- transliteration of Russian abbreviation of Committee for State Security

KPI- Key Performance Indicator

MI- million

NATO- North Atlantic Treaty Organization

NEGP- North European Gas Pipeline

NGO- Non Governmental Organization

OPEC- Organization for Petroleum Exporting Countries

RES- renewable energy sources

TEN- Trans European Networks

Toe- Tonne of oil equivalent

UN- United Nations

UNFCCC- UN Framework Convention on Climate Change

WTO- World Trade Organization

WWII- World War II

WWF- World Wide Fund for Nature

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Introduction

The modern society of today relies on energy in its existence, energy is the driving force for economy and energy sector is the main responsible for climate change. Mainly because of these important reasons energy plays a major role also in the political arena and is treated as a strategic political issue reaching the top of political agendas. Today the global energy market is facing numerous challenges: rising demand for energy, depletion of natural energy sources, fluctuant prices and climate change issues being among the most serious ones.

The correlation between energy and economic development is tight, and as the level of global welfare rises, the demand for energy increases. This trend is particularly obvious in developed countries that are the main energy consumers, and unfortunately also environment polluters because energy sector is accountable for the greatest amount of CO₂ emissions.

Globally the most widely used are non- renewable fossil energy sources, accounting for 4/5 of the global energy consumption, out of which the most commonly used are oil and natural gas (EOE, no date). It means that soon the world could meet a situation where supply can no longer satisfy the growing global appetite for energy. This encourages countries, businesses and individuals to search for alternatives already today in order to avoid the unfavourable situation in the future. However, it is very difficult to predict, what turns the energy development will take, as the possibilities are countless, and so are the risks involved.

Besides already mentioned global challenges, different regions of the world must face their own, region-specific ones. Sustainability, competitiveness and security of supply- these are the main objectives set by the European Union to tackle the energy issues on the European domain. Several policies and strategies have been elaborated both- regionally and nationally, reflecting the European concern for their energy future. Along with the global energy concerns, there is one that particularly worries Europe. That is energy dependency^{*} and reliance on energy imports from a single supplier- Russia, in particular.

^{*} Here and hereafter "energy dependency" is defined as country's imports divided by gross consumption

One can afford to say that European energy market is dominated by Russian resources. Europe is dependent on Russian gas for 42%, and on oil for 33.5%, ranking the Eastern neighbour on the very top of the supplier list. The other bigger suppliers for Europe are Norway, ensuring it with 16% of consumed oil and 23% of gas, as well as countries of Northern Africa (Algeria and Libya), and Saudi Arabia (Eurostat, 2008). The European Union is importing fossil energy sources in great quantities. Energy dependency for EU-27 in 2008 reached 53.8%, and two thirds of its members were above the dependence level of 50% (Eurostat, 2008).

If looking at energy flows from Russia, the most serious situation is on the Eastern parts of the European Union. The new members of the Community, which are either former space or satellite countries of the ex-Soviet block, face the heaviest dependence from Russian fossil sources. This is due to the historically linked pipeline system that still today locks them into the Russian oil and gas network, placing these countries in dangerous state of dependency.

Europe has been dependent on Russian energy long back in the history, including the time of the Cold War. Even then Europeans considered the big partner behind the iron curtain reliable as they were receiving gas, oil and coal in desired quantities. For Europe energy security became a truly burning issue for some years ago when in 2006 Russia shut off gas supply to Europe after political dispute with Ukraine and the consequences echoed further down the pipeline, in Western Europe.

Following this and several other incidents of similar manner, Europe became increasingly worried about Russia's behaviour. It is generally recognised that Russia is using its energy power as a lever to regain influence in the ex-Soviet space, which today includes countries of the European Union. Considering Europe's energy dependency from Russia, this has become a source of considerable concern for the EU and national governments of its member countries.

Russia has assigned energy the central place in its Foreign Policy therefore it plays a major role in its relations with the other states. Europe, on the other side, has responded with several policies and projects aimed at decreasing energy dependence from Russia. Even though the European Community realises that in the future it will not be able to diversify away from Russian oil and gas, several means of decreasing energy dependency are already in place and even more- on the way.

The European- Russian energy dialogue has not lead to any constructive result, instead each of the member states are pursuing their own bilateral policy towards Moscow. This puts the weaker Central Eastern European states in even worse situation, as their relations with the Kremlin are quite unstable and leverage- low.

It is also a fact, that there are considerable differences between the Western Europe and the countries of Central and Eastern Europe. These differences reflect in their energy markets- size, potential and level of dependency. Russia is treating these as different markets and applies different policy methods in dealing with them.

The Paper has put the three Baltic states- Estonia, Latvia and Lithuania in its focus. Mainly due to the reason that this sub-region of the European Union mirrors all energy problems and challenges best. After gaining their independence from the Soviet Union in 1991, numerous times these countries have been affected by Moscow's assertive Foreign Policy, including in the field of energy. Being heavily dependent on Russian gas and oil, the Baltic States are historically integrated into Russian energy networks, making them particularly vulnerable.

During the time this research is made the global economy is going through the worst crisis since the World War II. Already weak and unstable economies of the three Baltic States have been heavily hit by the global financial crisis causing deep recession expected to last for three to five years. After 1st quarter 2009 GDP of these sister nations had dropped for 12.6 % in Lithuania, 15.6% in Estonia and as low as 18% in Latvia (The Economist, 2009). Due to lack of resources, the governments have limited ability to help their economies therefore they are concentrated on stabilising the overall situation. In December 2008 Latvian government borrowed the amount of 7.5 billion Euros from the international financial organisations and due to the continuing recession the other two Baltic States are prepared to follow later this year.

The political decisions made during this challenging time will have their impact long in the future therefore any mistake made today have an extremely high cost. That in great extent refers also to the energy sector, as due to described vulnerability, state of risk and existing threats it requires immediate action.

The aim of this Paper is to find out what is the future for small, economically and politically weak European states that have to face coercive Foreign Energy Policy of Kremlin, at the same time being heavily dependent from Russian energy and having tense foreign relations between them. With the existing Foreign and Energy Policies in place and upcoming major projects in the field of energy supply for Europe, as well as different national interests of the countries involved, it discloses the actual threat the complex energy relationship triangle between the Baltics, European Union and Russia involve and how it is possible to decrease the energy dependency and strengthen countries' energy and national security.

The research is built on the analysis and evaluation of the Baltic energy markets, looking at them in a wider European context. It evaluates the Energy Policies in place, aimed at decreasing the energy dependency from Russia and building a sustainable and secure energy network for the future. It further looks into the newly developed Energy Policy for Europe and seeks for opportunities for the weaker EU member states it provides. At the same time the European weaknesses are mentioned, pointing out the areas and ways for improvement so that the smaller and economically and politically weaker states are able to defend their national interests and counter with assertive Russian policy.

It also draws the main conclusions from the market analysis and discloses the main trends for the development of the energy sector, influencing the Baltic States and Europe as a whole, taking into account the existing environmental, political and economical restrictions, as well as market requirements.

Further, it looks at the situation from the Russian perspective, investigates its energy market, trends and Energy Policy, thus helping reader to understand the motives and intentions behind respective actions.

The research further touches upon major European- scale projects in the field of energy related to the Baltic region, aimed at decreasing European energy dependence and diversifying energy supply routes and sources. The paper evaluates concerns of the Baltic States from the perspective of energy security, evaluates risks and opportunities, studies the views of other states involved and brings out the disadvantages and true intentions behind these vast investment projects.

Finally, the paper puts forward several important conclusions on Baltic and European energy situation, as well as suggestions on how to decrease energy dependency from Russia, achieve higher level of energy self sufficiency and environment protection, taking into account the political, environmental and economic realities.

1. Chapter- Energy Markets, Policies and Energy relations.

One of the main parts of the economic policy is energy, and during this time of political instability, growing demand and still relatively high prices, this area should be of a particular concern to the "crisis governments". Most of the energy sources are located in politically and socially unstable locations of the world, making it complicated for the energy importer countries to form constructive energy dialogue with the suppliers and transit states. Secure and sustainable supply of energy at affordable price is one of the most serious challenges of the 21st century for many governments, especially as in the case of the Baltics' when the states have to face dependence from a doubtfully reliable partner.

Energy Policies of the three Baltic countries are shaped by the common EU Energy Policy which is struggling to merge the needs of 27 unequal member states. In this document (New European Energy Charter, 2007) the energy market of the Baltic region has been referred to as "the energy island". Estonia, Latvia and Lithuania, staying in the shadow of Moscow for as long as the Cold War lasted, now after almost 20 years of independence have finally stepped forward with a common Regional Energy Policy aimed at decreasing dependency from Russian energy and stop the isolation from the common EU energy market.

The already complex energy relationships of Europe and Russia are fuelled by frictions between the latter and separate EU member states that due to the tense foreign relations between them are unable to find a common ground for establishing pragmatic bilateral business relations in the field of energy supply. Furthermore, due to the fact that there are considerable differences between the European states in terms of their size, leverage, interests, economic capabilities and level of energy dependence, the EU is divided in its views over the cooperation with its Eastern neighbour.

Russia, on the other hand is using the European fragmentation to pursue its Foreign Energy Policy that is built on energy leverage. However, if looking deeper into Russia's domestic energy market, the image of an energy superpower Russia is trying to build internationally has no real grounds. This Chapter also explores the challenges on the Russian side, looks at Russia's role in the Baltic region and evaluates threats for Baltic energy security behind the policy and strategy pursued

by the Kremlin.

1.1 Baltic- Russian relations

Ever since regaining their independence, the Baltic countries have had tense relationship with the Kremlin. After joining the EU and NATO in 2004, these relations have even worsened. Filled with rhetoric, sanctions and oppression from the Russian side and mutual distrust, guided by different values, they are unlikely to reach a common ground in the future.

The sorest questions on the agenda are interpretation of the history and Russia's denial of the occupation fact and Soviet annexation, status of the Russian speaking minority in the Baltic States, border issues, trade and transit, and others. For several times Russia has taken a hard line on the Baltic States, influencing their political and economical decisions.

After joining the EU, the Baltic States in dealings with Russia have set their policy in multilateral framework that has put the adversaries on more equal negotiating positions. However, that has not stopped Russia from pursuing its assertive Foreign Policy towards the Baltic region countries, and the most serious encounters between them have happened particularly after the Eastern expansion of the EU and NATO. Russia has repeatedly violated the Baltic (at the same time NATO) air space, revoked the Estonian- Russian Border Treaty, imposed economic sanctions on Latvian, Lithuanian and Estonian imports, trespassed the Baltic cyber space, and exerted influence on transit business (Karabeshkin, 2007, p 157-161).

Russian assertive Foreign Policy has used also energy as a tool for influencing the weaker neighbouring states, being heavily dependent of Russian energy sources. These complex energy relations are discussed further in the Paper.

1.2 Baltic Energy System

The Baltic states have inherited their electricity and pipeline network from the Soviet Union that nowadays makes them integrated in and deeply dependent from the Russian energy system and totally isolated from the energy market of the European Union. In order to make a quick change, it requires tremendous investment which the states cannot afford minding today's financial situation and current crisis-generated list of priorities. Today, the Baltic energy system isolation question is a priority for the EU's Energy Policy makers and strategists.

In the total European energy picture the Baltic market will always play an important role due to its

geographical positioning by being so close to Russia where Europe receives most of its natural gas and oil imports from. The EU officials state that “stronger solidarity is also essential in boosting interconnections inside the EU, so that member states can help each other out in tackling shortfalls” (BBC News, 2008).

1.2.1 Energy Import and Production

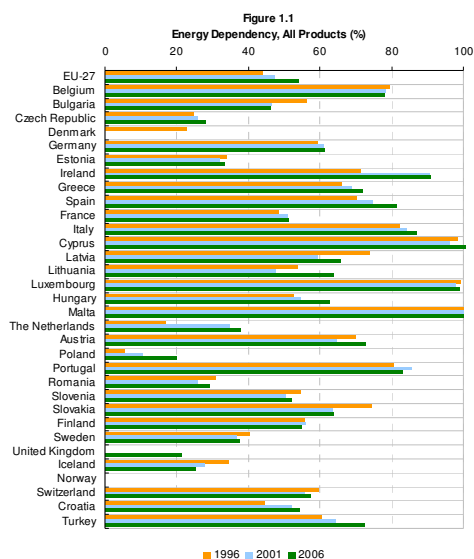
As most of the European Union, also the Baltic countries are net importers of energy and face one

of the strongest energy dependencies within the EU (see Figure 1.1). If comparing with the average EU figure, the Baltic States, except for Estonia, are above the EU average of 54 per cent with energy dependency reaching 64 per cent in Lithuania and 65.7 per cent in Latvia (Eurostat, 2008). The only countries within the EEA with export capacity are Denmark and Norway.

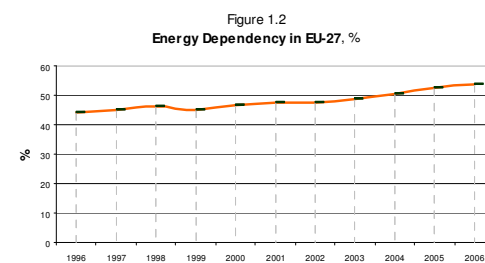
If looking at the overall European dependency figures, it can be clearly seen that Europe is increasing the share of imports every year (see Figure 1.2). This is due to the fact that Europe is running out of locally produced energy, amount of which is shrinking every year. Production has dropped in all sources of energy, including oil, gas, coal and nuclear. Overall, within the last ten years, Europe’s energy production has fallen by 9 per cent, while consumption grew by 7 (Kennedy, 2008).

”We must break the vicious cycle of increased energy consumption and increased imports”, has been stressed several times by the EU Commission President Jose Manuel Barroso (BBC News, 2008).

In the energy import picture the dominating sources are oil and gas, especially in the countries with limited or no natural resources, like the Baltics, presenting a dangerous state of dependency from one supplier. Most of European imported gas and oil is coming from the Russian Federation. Russian oil accounts for 30% of the total European oil import; however in the gas sector the figures are much more dramatic. Out of 61% of total imported European gas consumption, 42% are of Russian origin, and, according to the European Commission, “gas imports are expected to grow to



Source: Eurostat, 2008



Source: Eurostat, 2008

73% of consumption” by 2020 (BBC News, 2008).

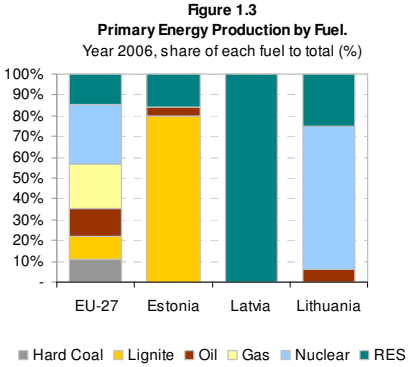
This dependency is even heavier in the Eastern parts of the Community, historically enjoying better conditions and prices for Russian oil and gas. Nowadays the situation concerning Russia’s preference and protectionism over the countries of the ex Soviet block has changed, however the energy dependency these states are facing today, remains and has become a matter of great concern. The Baltic States rely on Russian natural gas imports by 100 per cent. Also the consumption of this energy source is very high in all three countries, deepening dependency on Russian energy as it continues to grow.

Illustration 1.1 shows the current and potential routes for delivering Russian oil and gas to European consumers. At this moment, the Baltics receive their oil and gas imports from Russia via the pipeline systems operated by Russian state-controlled monopolies Transneft and Gazprom, accordingly. Baltic natural gas and power networks are closely connected between them and that is a good precondition for building a common energy system in the future. However, the weak point is lack of interconnection with either Central, Western European networks, or the Nordic countries.



Illustration 1.1, source: www.acus.org

Locally the Baltic States produce energy from the following sources: hydro, oil-shale, nuclear, natural gas, orimulsion, wind, land-fill gas, biomass and fuel oil (See Figure 1.3). Most of the energy



Source: Eurostat, 2008

sources are imported; however there are some local sources of energy, in particular: oil-shale in Estonia, accounting for 90% of the locally produced energy, hydro energy in Latvia, ensuring 70% of the domestically produced energy and nuclear energy in Lithuania, estimated to account for 69% of energy produced domestically (Eurostat, 2008). The countries have developed power-generating

infrastructure in place, however, due to the growing needs for energy in the future and existing circumstances, vast investment is required for the energy industry. The most important industrial objects for the three Baltic energy markets are discussed below:

- Nuclear Power Plant in Lithuania

The biggest regional producer of energy is the Ignalina nuclear power plant in Lithuania. Constructed during the Soviet period in early 80ies, it was recognised as unreliable security-wise by the EU. Due to this fact, Ignalina nuclear power plant is going to stop its operation by the end of this year, as a part of the Entry Agreement between the EU and Lithuania (Adomaitis, 2007).

The expected closure of the Ignalina nuclear power plant will dramatically influence the Baltic energy market which in great extent feeds from this particular energy producer. The dependency risk will grow, as losing energy generated by the Ignalina reactor, will increase consumption of natural gas imported from Russia. Therefore, energy experts of the Baltic countries stress the need for building a new nuclear power plant serving the Baltic region and supporting economic growth after countries have recovered from crisis.

- Electric power transmission cable in Estonia

Estonian energy production is built on the oil shale industry. Estonian government has also plans to build a nuclear power plant (see Chapter 3). The potential of Estonian energy market will be increased by the interconnection with Finland, so called “the Estlink project”, planned in several stages.

The first stage of the sea cable stretching from Estonia to Finland, connecting the Baltic energy system with the one of the Nordic countries, started to operate in January 2007 (NEL, no date). The Estlink is considered to be the first bridge to link the Baltic and EU's energy systems. Jointly owned by the Baltic and Finnish power companies through Nordic Energy Link AG, it is beneficial for the Baltics not only for security purposes, but also it provides the Baltic energy producers with new markets for trade (New Europe, 2009). Via Estlink, the power can be transmitted both ways- it will export the produced energy within the Baltic countries to the Nordic states, as well as increase the energy security of Latvia, Lithuania and Estonia by reducing its energy dependency from Russia.

- Thermal power station in Latvia

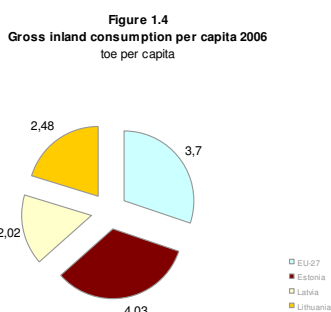
In May 2009 Latvian energy operator Latvenergo launched the most modern and environmentally friendly thermal power station in the region with great electric and heating capacity, expected to decrease the countries electricity dependency by 30% (Latvenergo, 2009). Although this tremendous project is claimed to strengthen the national energy security, presented diversification is somewhat false as the plant is run on natural gas, which Latvia only imports from Russia. Therefore, it can be stated that this major project only increases the energy dependency together with the political risks it implies. The project is highly controversial as it is in line neither with the countries national interests nor the National, Regional or European Energy policies.

Besides the above mentioned major energy producing units of the region, an important cornerstone for stabilisation of Baltic energy security is the underground natural gas storage in Latvia and oil refinery in Lithuania.

1.2.2 Energy consumption

After year 2000 the energy consumption figures in the Baltic States have been increasing significantly. This is due to the rapid increase of the countries GDP's. Now, as a result of the economic crisis when the total production is experiencing the worst slowdown in countries' history, also the energy consumption is expected to decrease. This has been confirmed by the recent study of

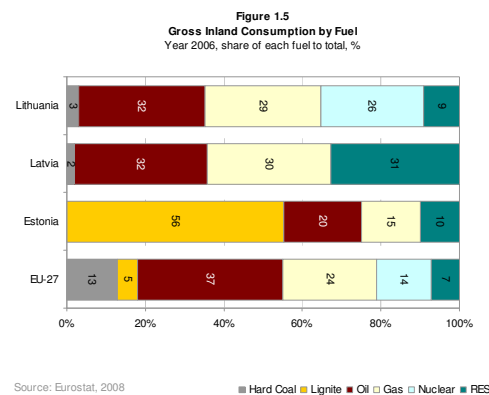
the energy research agency Platts- "Energy in East Europe", stating that already in the first quarter of 2009 energy consumption has dropped by 8,1% in Latvia, 1,8% in Estonia and by 7,1% in Lithuania (LETA, 2009). However, if the Baltic states in years to come experience similar growth of their economies, the more powerful energy production plants or further increase of imported energy will be necessary.



Source: Eurostat, 2008

Currently the Baltic States consume less energy per capita than the European Union in average, except for Estonia, where in 2006 energy consumption was estimated at 4.03 toe per capita. In Lithuania and Latvia this figure was 2.48 and 2.02 toe per capita, accordingly (see Figure 1.4).

If looking at the domestic consumption figures by source (see Figure 1.5), it shows that the mostly consumed fuels in the Baltic States are those which are not produced locally. The greatest dependency risk lies within the rather big share of imported oil and gas. This fact becomes even more serious when noted that all natural gas imports are received from one supplier- Russian Gazprom. With the help



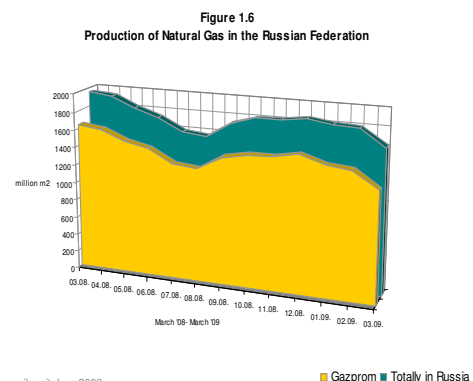
of ongoing projects decreasing dependency from energy imports, discussed further in this Paper, it is expected to improve the situation.

The total energy consumption in the Baltic States within the closest years will decrease. This is expected to happen not just due to the recession in economy, but also more rational use of energy driven by the government initiated energy saving programs and projects preventing energy waste. Businesses are already switching to the use of more energy efficient technology and within the Baltic region there is a positive trend for growth of low power-intensity businesses, for example, service industry. By reducing the energy consumption and building energy efficiency, it is also possible to avoid the growing risk of energy dependency.

1.3 Russian energy market and role in the Baltic region

During the past five years the world energy prices have been increasing significantly, and so has the Kremlin's confidence in its energy power. Only in 2008, when the economies worldwide got hit by the global financial crises, it left an impact on energy prices. However, according to the IEA estimates, in the future they will continue to grow. Also Europe's demand for imported energy is growing every year and is expected to increase from 57% to 84% by 2030 for gas and from 82% to 93% for oil (European Commission, 2007, p3).

Russia is the largest producer of natural gas in the world estimated to yield 1.688 trillion cubic feet from its operating reserves; and 7th largest producer of oil with production capacity up to 74.4 billion barrels (Cohen, 2007, p2). Additionally, there are huge areas in Eastern

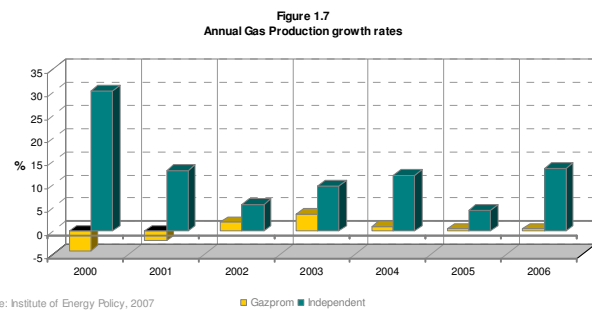


Siberia and the Arctic still to be explored.

Beyond doubt, Kremlin plays an important strategic role in EU's energy supply- Russia is the biggest supplier of oil and gas for Europe and during the last years the European fear about Russian Foreign Energy Policy intentions has intensified.

1.3.1 Russian Energy Market and Policy

Russian economy relies heavily on oil and gas business. In year 2006 energy constituted 65% of total Russian exports, presenting 37% of federal budget revenues (Wolff-Stiftung, 2008, p8). Russia exports most of its oil and gas, and the greatest amount of it- to the EU. Considering this, and taking into account Europe's heavy dependence on Russian energy, energy relations between the latter can be described as interdependent.

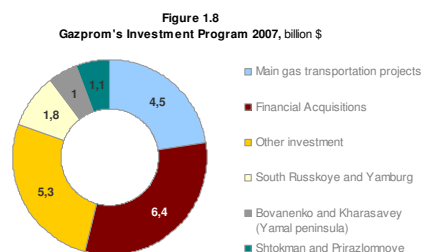


Russian energy market is owned and controlled by the government. The natural gas giant Gazprom produces as much as 85% of the countries gas resources (see Figure 1.6). In oil sector the situation is a bit different- it is owned by numerous smaller companies. However, the state

control is enforced through oil and gas pipeline networks, owned and operated by state monopolies- Gazprom and Transneft, giving the Kremlin the full control over the export business.

A positive sign in Russia's energy production is the growing role of the independent producers. As Figure 1.7 shows, these producers have demonstrated a huge growth during the past years while Gazprom has experienced only a slight increase or even negative growth.

During the last few years Gazprom's production capacity has been decreasing due to depletion of the major gas fields (see Figure 1.7). Developing new fields is critical at the moment if Russia wants to meet the growing European energy demand. It requires tremendous investment and considerable time for the new fields to start producing. If the European demand for natural gas is increasing as estimated by the European Commission, Gazprom will unlikely be able to satisfy it. Moreover, the Russian gas company in its



strategy has outlined an impressive investment program, aimed at developing new gas fields, investing in financial acquisitions and other projects increasing its operation capacity and stronger presence in foreign markets (see Figure 1.8).

If oil can be delivered by other means of transportation, natural gas is mostly a pipeline-business. The Russian pipeline system was constructed during the Soviet era and now requires replacement and again- considerable investment. The above chart demonstrates vast investment necessary for development of these fields. The foreign energy experts and investors have expressed doubt that Gazprom is able to realise these projects so that Europe could be sure that its needs will stay satisfied (Petrovic, Orttung 2007).

In its Energy Strategy for years 2003- 2030 the Kremlin defines its goals and development vision for the highly prioritised energy sector, which plays a leading role in the country's Foreign Policy. The main intention for Russian energy business is to reduce dependence from the transit states and increase energy exports, securing its positions in the export markets. The Russian energy giants carry out this mission of the Kremlin's Foreign Policy abroad through expansions, acquisitions and acquiring of downstream assets and production units in foreign countries, Europe inclusive.

The policy also confirms that the Kremlin intends to keep the strategic energy market in close state control and make sure dependency on Russian energy in strategically important markets increases, confirming the common view that energy is used as a political weapon for receiving political gains. As stated by the Swedish security analyst Robert Larsson in his latest report (2007, p76), "energy is set to become Russia's primary non-military tool for boosting its international respect, partly by coercion and partly by reliability".

Interesting is the fact that in its Energy Strategy (2003) Russia raises concern about its own energy security. However, energy security in Russian interpretation means secure access to export markets and physical security of the valuable infrastructure, which is totally different stance from how Europe views it's "energy security".

The Russian Energy strategy estimates more than 500 billion USD to be invested into long-term energy projects. Naturally, Russia cannot afford such large amounts and will be willing to attract foreign direct investment. The foreign investors, on the other hand, are very cautious about investing in Russian oil and gas business due to lack of transparency and guarantees that they would definitely require to ensure their participation in the future business development.

Another challenge Russia must tackle is its own energy consumption mania. Due to its accessibility, Russians consume more energy than any other country in the world. The domestic gas

prices are subsidised and are currently as low as USD 52 per 1000 m² (Simmons, Murray, 2007). Also the domestic energy consumption is increasing and taking into account the limited production possibilities in the future, the amounts left for export are shrinking even more. So far Russia has done very little to stimulate energy saving. Finnish energy expert Kari Liuhto (2008) says that, according to the newest World Bank estimates, Russia would be able to reduce its primary energy consumption by 45%, by investing 320 billion USD in energy saving with a payback time as short as 2-4 years.

Just as Europe is worried about increasing dependency from Russian energy imports, also the question of resource sufficiency is of a great concern- is there going to be enough natural gas to satisfy the Russian domestic consumers, as well as the growing needs of the European energy market? Taking into account the estimated increase in demand for natural gas in Europe and putting it against Russia's production capacity drawn from its Energy Strategy, it is clear, that Russia will not be able to supply the growing European demand in the future. Moreover, Russia has expressed in the above mentioned strategy that it plans to export as much as 1/3 of the countries energy resources (oil and gas) to the Asian markets. If looking at the Gazprom's KPI's, it is rather doubtful. Financial Times informs about the huge debts of the company having targets too ambitions to have enough financial coverage (Crooks, Belton, 2007). The company also is in desperate need for investment at the time when the prices for oil and gas are falling.

Another conclusion that can be drawn from the potential gap between supply and demand is that Russia is not viewing Europe as its main energy market in the longer perspective and is determined to switch its main exports towards the East. As clearly demonstrated by the numbers, Kremlin realises Europe's capability to turn away from Russia as its major energy supplier and diversify the sources of energy supply. Thus, the role of the Kremlin in the total European energy picture would diminish however, taking into account the upcoming projects demonstrating clear interest in European markets (like Nord Stream and South Stream), Russia will most likely remain one of the major players in the European energy market and has thought about solution for the capacity issue.

1.3.2 Presence in the Baltic region

Taking into account the great dependency of the Baltic States on Russian gas and oil described earlier in this Chapter, also Russia's presence in form of ownership of downstream assets is worth attention. Gazprom partly owns the biggest gas companies in all three Baltic States. Although this share does not exceed 50%, it still impacts the Baltic energy business considerably. Every Gazprom's expansion in the European markets is being followed with great concern. Europeans are worried

about the lack of reciprocity within the Moscow's deals of acquiring downstream assets in Europe. As Russia obstinately has been refusing to ratify the Energy Charter Treaty and the Transit Protocol of the EU with an intention to keep Gazprom in state control, company's aggressive acquisition activities have called for criticism within the EU and beyond.

In April this year Gazprom decided to open its first representative office in Europe to be located in the capital of Latvia- Riga. According to Gazprom's press release of April 8, the office in Riga will be responsible for "development of long term cooperation and search for new areas and forms of activity in the Baltic market" (The Baltic Times, 2009). Energy and policy experts of the region are concerned as increasing Russian presence in the market does not go in line with the Baltic strategy, striving to diminish the Russian influence.

Gazprom's strategy clearly demonstrates the company's growing appetite for the strategic European downstream assets to gain control over the whole energy supply route. Gazprom has also expressed its interest in Latvian underground gas storage facilities, as part of the Nord Stream pipeline, as it presents great opportunity for the core project.

In 2008 Gazprom came forward with the proposal to build a nuclear power plant in the Baltics, claiming for 25% stake in the project. The Russian initiative was refused (The Baltic Times, 2009).

Russian capital is also present in the Baltic oil business. The Baltic Pipeline system is operated by Russian Transneft that delivers oil to the ports of Latvia, Lithuania and Estonia. The oil transit business is of a great importance for the Baltic States and gives a big contribution to the countries' economies. However, in 2006 Russia launched a new pipeline to the shores of the Baltic Sea in the Russian territory, port of Primorsk, resulting in considerable decrease in volumes and transit fees for the Baltic ports (The St.Petersburg Times, 2006).

The biggest Russian oil company LUKoil has also established strong positions in the Baltic retail oil market.

The increasing Russian presence and role in the Baltic region has called for the attention of the European Union. The Baltic countries have strongly supported the idea of a common European Energy Strategy, at the same time elaborating the strategy on regional and national level.

1.4 Energy Policies

Energy Policy is a strategic document of a National government or region addressing the questions of energy development like energy supply, production, consumption, and security. In many

European countries, the Energy Policy documents were modified after Kremlin openly exerted its increasingly assertive Foreign Energy Policy causing considerable concern within European Community about its energy security. As Russia is and will remain the biggest supplier of energy for Europe, these issues will have to be tackled in a manner that results in affordable and secure energy supply for Europe on one side and diminishing dependency from the Eastern partner, on the other. The third big challenge for the industry- environment protection is also a major responsibility of the energy sector and is taken into account when forming the Energy Policy.

The Paper further explores what turns have the energy policies taken and how the Baltic region and the European Union are going to face the energy challenge.

1.4.1 European Energy Policy

During the time when Russia is repeatedly using its dominant position in the energy supply market to influence the countries of the former Soviet block, the Baltic States are constantly urging the EU to create a common Energy Policy that would protect the interests of the Union's economically and politically weaker member states.

On January 10, 2007 the European Council approved the Energy Policy for Europe, addressing the most serious energy challenges for the European market. The Policy lists core energy objectives for Europe, which are: sustainability, competitiveness and security of supply. The Commission also has elaborated a new EU Energy Security and Solidarity Action Plan which outlines the activities European Union must focus on in order to deal with the global energy challenges, increase its energy efficiency and reduce energy dependence on imports. The activities are structured in five key areas aimed at ensuring more secure and sustainable energy supplies in the future (European Commission, 2007).

The document sets main pillars of the common Energy Policy of the European Union. One of these pillars is the Foreign Energy Policy with the target to develop a common approach to third countries concerning questions of energy security and cooperation development, particularly important for the smaller EU members with high energy dependency. In order to achieve this target a European unity is needed when entering the global discussion on energy matters. This especially concerns the dialogue with the biggest suppliers. In order for the European Energy Policy to reach its targets, there is a need for a common EU Foreign Policy framing the Energy Policy. This important "frame" is exactly what Europe is currently lacking. European Commissioner for External Relations and European Neighbourhood Policy, Benita Ferrero- Waldner sees the importance: "A greater focus

on energy in the EU's international relations is crucial to the energy security of the EU. The development of strong and reliable energy partnership with suppliers, transit countries and other major energy consumers is key", she thinks (European Commission, 2008, p1). The common European approach is the main expectation of the Baltic region countries, which due to the shaky relations with Russia are worried about the security of their energy supply. The bigger and more powerful members of the European Union, on the other hand, like Germany, Italy, United Kingdom and France, rather opt for bilateral energy dialogues with Kremlin, thus ensuring realisation of their economic interests.

The EU Commission President admits the Union's failure to merge the different stances of the member states and states that the EU members "need a more common approach with third countries. If the Europeans "cannot have a single voice...we must at least have a single message" (BBC News, 2008).

The Policy also states the widely discussed ambitious target of "20-20-20", that stands for reduction of greenhouse gas emissions by 20%, increase of the share of renewables in energy consumption to 20% and improved energy efficiency by 20%, all of it by 2020 (European Commission, 2007). The EU Commission President Jose Manuel Barroso assures that meeting these targets "would cut EU energy imports by 26%" (BBC News, 2008).

These newly set targets in a great deal worries Moscow as the main gas and oil supplier for Europe. Although it has been publicly stressed several times by EU officials that their activities are not directed against any particular state, the Kremlin sees a clear European intention to avoid Russian energy imports in the nearest decade. "We receive extremely contradictory signals from our European partners about whether Europe needs Russian gas or not", says top Gazprom executive, expressing Russian uncertainty about European motives (Medvedev, 2008).

The inability of the EU members to agree on a common approach towards Russia as the biggest energy supplier is the main reason why European Policy can suffer a failure- the EU is not showing unity in important questions that concern security of its members, thus worsening the security situation of the weaker member states and increasing their political vulnerability.

1.4.2 National energy policies

Along with the ongoing energy discussion and produced policies concerning energy security within the EU, each of the Baltic States has developed their own National energy policy for the future, as well. Energy development strategy for years 2007- 2016 for the Republic of Latvia has been

issued in August 1, 2006, followed by the National Energy Strategy of the Republic of Lithuania, issued in January 18, 2007. Estonia adopted its "Long-term Public Fuel and Energy Sector Development Plan until 2015" already in 2004. The challenges highlighted by these strategies are similar to the ones of the European level- high dependency on energy imports from outside the EU, triggered by insufficient energy sources, low energy efficiency and environmental challenges driven by EU's ambition to cut CO2 emissions.

The strategies define several important common targets:

- increase the security of energy supply;
- increase the capacity of power-generation;
- secure the resources of primary energy sources;
- diversify the primary energy sources;
- prevent the energy market from isolation.

Although the National governments of the three Baltic States have confirmed their commitment to form a single energy market, their National Energy Policies set out several differences driven by differences in national interests. One of such unsure questions is market liberalisation. Already on July 1 2007, the governments of Latvia and Lithuania fully liberalised their energy markets, while Estonia negotiated with the EU a gradual opening of its market till 2013. Industrial consumers in Latvia and Lithuania can choose their energy supplier already since 2004, while Estonia has opened its market only for 35% since the beginning of 2009. It has caused a positive ground for increased competition within the Baltic regional market, and already in 2006 Estonian National Energy Company started to operate in Latvia and in early 2007 it opened its subsidiary also in Lithuania. In June 2007 Latvian Energy Company established a subsidiary in Estonia and has plans to operate in Lithuania in the nearest future (Pavuk, 2007).

This open market environment has made the Baltic energy companies compete between themselves. It has not only been beneficial for the end consumer, but also has not stopped the governments of the Baltic States to work towards creating a common Baltic energy market, as the challenges all three countries face are the same. However, this in many occasions has prevented the countries from establishing closer cooperation and the balance has shifted towards competition, while during the time when the energy and national security of the Baltic States is endangered, the latter should become a priority.

Since joining the European Union the Baltic States have been seriously concentrated on working

towards forming and implementing the common European initiatives in the area of energy security and development. Unfortunately, it has also resulted in a situation when the partnership between themselves has been pushed down the list of priorities. The obstacles for regional cooperation make these small markets even weaker, and inability to reach consensus in many more important matters reflects in the situation with the Baltic Energy Strategy which, finally elaborated has not yet been approved and only partly realised.

1.4.3 Baltic regional energy policy

Notwithstanding the above, the Baltic Energy Strategy demonstrates a strong political will for cooperation between these states. Although the Strategy has not been approved, several tasks towards building a "sustainable, competitive and secure common energy market" have been already accomplished (BCM, 2007).

The common Baltic Energy Strategy 2007 has been developed in close cooperation between the experts on Baltic energy market, European politics and policies, as well as Baltic experts on Russian energy business and politics (BCM, 2007, p2). Strategy highlights the critical need for decreasing existing energy dependency, followed by economic and environmental targets that clearly demonstrates the actual fear Baltic countries have towards their influential neighbouring country. The strategy builds on using local energy sources of each of the countries. One of the targets of the strategy is to decrease dependency from imported natural gas and oil and to increase the share of local and particularly renewable energy sources. By utilising this rather diverse energy mix and improving energy efficiency, where the biggest potential lies, it is expected to increase energy security of the Baltic region in mid-term perspective.

It is also noted that there should be "clearer political signals about the priorities and objectives", which is a good point due to the fact that the priorities of each of the countries are changing with every new government. Since in the Baltic's, especially in this tense situation the governments change quite often, the strategically important areas lack a clearer picture and continuity. Because of this reason, it is also not possible to create a well organised and transparent regulatory framework which is crucial for ensuring energy security and competition in the regional energy market.

In the document it is repeatedly stressed that there is a huge potential for energy saving. It can be even stated that improvement of energy efficiency could be the number one thing all countries could do to gain some quick wins. More costly and time consuming is the target of shifting to production and consumption of the renewable energy sources.

The strategy does not mention the fact that notwithstanding the current critical financial situation, due to the small size of their markets, the Baltic countries are more flexible for change. They can perform a quick change much easier than other bigger economies with "heavier" systems. This is however, mentioned several times by the European Commissioner for energy Mr. Andris Piebalgs in his public speeches (2007). The problem is that the countries themselves do not believe in this fact.

The strategy outlines several good opportunities for strengthening energy market of the region for separate sources of energy- electricity, natural gas and liquid fuels. One of them is interest of the market participants to invest in electricity sector. This point is highly beneficial due to the fact that in the closest future governments will not be able to invest significant amounts in development of energy sector due to recovery from crisis.

Another opportunity requiring vast investment is building of interconnections with the power systems of the neighbouring countries-Finland, Poland and Sweden. This would not only decrease the dependency threat, but also provide opportunity for energy exports. Third opportunity for the electricity sector is the possibility to replace imports with renewable energy resources produced locally.

The natural gas sector is much less flexible. The opportunities only lie within the Latvian gas storages and possibility to construct the LNG terminal which, again, requires tremendous investment.

The best opportunities are for the liquid fuels sector which is also heavily dependent on imports. All three countries, having excellent geographical situation in this respect, have the opportunity to develop their ports to increase their efficiency by promoting usage of the Baltic ports for transit. The same concerns storage facilities.

Now the Baltic countries are stalling because of economic crisis, however a few years ago when they experienced the most rapid growth in the history, very little was done for the purpose of energy independence. During their transformation period all three Baltic States have been enjoying very low energy prices and this situation had made them indolent as it was considered that this will continue in the future. Today when the situation has changed quite drastically, it is not only enough to think about the price factor when setting up the national or regional energy strategy- other equally important factors need to be considered. These factors are energy availability, secure supplies and environment protection.

Furthermore, it is not just enough to be aware of these things; the most important question is how to find the right balance between them. It is especially crucial today when it has become a matter of energy security. The energy policies of the Baltic countries should lead to this balance, which

ultimately would mean to change the whole energy production strategy and consumers culture.

1.5 Energy relationships of Baltic States, European Union and Russia

Neither of the Baltic States in their Foreign Policies has defined energy security as one of the top priorities. It is, however, defined as a target of economic interest that includes diversification of energy supply sources in order to decrease dependence from one supplier. All the long term projects ensuring secure energy supply for the Baltic region and Europe are among the interest area of these respective countries. Accordingly, all questions concerning energy governance within the European Union, especially those concerning internal interconnections within the Community, market liberalisation and implementation of solidarity mechanism in case of disruptions in deliveries are of a great importance for the Baltic region.

“Should the EU be unable to design a common energy policy for itself, the Kremlin will create energy policy for Europe”, has been said by the Finnish academic Kari Liuhto (2008, p1). This sarcastic phrase has a great deal of truth taking into account the fact that so far Kremlin has been much more successful in integrating Energy Policy to reach its Foreign Policy targets thus gaining leverage over the European states.

These assertive actions are posing threat to the European unity which in its numerous attempts to create a common EU energy market has not become closer to its goal than just theoretically. The fragmented European energy market, reigned by national monopolies, continues to expose its differences as each country applies its own Foreign Energy Policy towards Moscow serving their particular national interests.

Before January 2006 when Russia actually shut off the gas supply to Europe as a result of Kremlin's dispute with Ukraine over gas prices, only theoretical threat existed in the EU about Russia's energy power, mirroring in the vague Energy Policies of the EU member states.

Now countries in the area of potential negative influence have realised the necessity to integrate their Energy Policies within their Foreign and Security Policies and have it move up in the National Agenda due to the fact that energy questions linked to Russia pose threat to both, national and economic security.

No matter how open the energy market will become in the nearest future and what policies will take place, the fact still remains that the gas to the Baltic countries (and most of the other EU states) will be supplied by Russia and therefore, the number one question at the moment, in order to guarantee secure gas delivery to the domestic consumers, is a common EU approach to cooperation

development with the Kremlin.

The EU- Russian energy dialogue was initiated in year 2000; however it never gave any constructive result but presented a common ground for exchange of thoughts on energy efficiency, environmental security and investment (Saunders, 2008). Hence there is a reason to consider that the big hope the Baltic countries have for the common EU policy with the Russian Federation may never come to reality. This theory can be supported by the fact that a significant conflict of interests exists among the EU member states and alongside of the common EU approach to the energy dialogue with Russia, each importing nation has its own "business relation" with the Kremlin. Thus, the energy security and economic questions in a great extent depend on countries themselves and the way they build bilateral energy dialogue with Russia. For a big country it may be advantageous, however for smaller ones the security threat may even increase.

Therefore, in longer term the Baltic States should coordinate their energy policy so it decreases the competition between the Baltic States themselves, but rather works towards single energy market.

Key Findings

High energy dependency from unreliable partner, lack of investment, tense political relations with the major supplier, low energy efficiency and limited interconnection with the EU energy network places the states of the Baltic region in a critical situation in terms of energy security. The growing energy challenge implies serious political risks. As energy sector is highly politicised, a clear policy is needed. Currently, the policy objectives and legal ground of the relatively small Baltic region differ, if looking at the European level these differences are even more visible. The Baltic governments have securitised the energy matters and are taking threat posed by the Kremlin's assertive Foreign Energy Policy and energy dependency from Russia seriously. However, on the other hand, the Baltic governments have rather narrow political focus, and in the area of energy competition prevails over cooperation. National interests of small and weak states can be more effectively achieved through regional cooperation and the governments should focus more on pursuing common Energy Strategy vis-à-vis the Eastern neighbour.

Russia is trying to increase the already strong presence in the Baltic region. Although it has strategic interest in Baltic energy infrastructure, the energy markets of the three Baltic States are not so important for the Kremlin as the ones of the Western Europe. Therefore, in its Energy Strategy Moscow differentiates between the Eastern and Western European regions, applying more

collaborative approach to the West and affording coercive actions towards the countries of the post-Soviet space.

The economical model of Russia where economy is strictly controlled by the government and its main and only driver is oil and gas makes the sustainability of Russia's energy leverage questionable. Today, during the global financial crises, oil and gas experience prolonged price decrease and the Kremlin is not able to shift the economy to other major source of income because such simply does not exist. Therefore, due to the global downturn, the country is suffering financially and is unable to fully realise the main targets of its Energy Strategy.

Finally, European fragmentation is the key problem for Europe in its dealings with Russia. While the European Union is unlikely to reach a consensus on a common approach towards Moscow, the latter is successfully realising its assertive Foreign Energy Policy and influencing the EU member states. The major projects in the field of energy supply for Europe, discussed in the next Chapter, demonstrate these weak points of the European Union.

2. Chapter- The Nord Stream pipeline and other major projects in the area of energy supply for Europe.

Europe's growing demand for energy in the next decades is bringing along new challenges. Since secure energy supply is such an important area concerning not only countries' economy, but also their national security, energy supply questions have attracted a lot of attention both, in the political and business world.

Already in the end of 90'ies the first sprouts of new cooperation for supplying Europe with energy in the future grew between Russia, as the biggest energy supplier for Europe on one hand and European companies envisaging huge profit potential, on the other.

In 2002, when the Kremlin actually applied energy pressure on its former allies by increasing the energy prices and actually shutting off the energy supply, affecting customers in Europe, the European governments started to view energy related questions with much more caution and consideration. Along with the economical reasons security aspect had stepped in the picture and every new project in the field of energy coming from Russia had been closely monitored and analysed, weighing all the pros and cons, sensing potential threat and looking for the opportunity to ensure that the national interests of the particular state are taken into account.

In this respect, a few greatest projects in the field of energy supply for Europe have involved many different parties- from countries of supply to countries of origin, their governments and energy



production companies to related businesses, environmentalists, investors and lobbyists, policy makers and media. They all are concerned about a question "what is going to happen to the energy supply for Europe in the closest future?". The Paper further examines the most significant projects, namely, the

Nord Stream and South Stream pipelines, the Amber Route proposal and Nabucco project, taking into account their relevance to the Baltic states' energy security. The Chapter provides an overview of these projects and discusses political, economical and security aspects they entail.

2.1 The Nord Stream pipeline

The Nord Stream gas pipeline is expected to link Russia and the European Union. Initiating in Vyborg, western Russia, two parallel lines will stretch 1220 km on the bottom of the Baltic Sea till the Northern coast of Germany, city of Greifswald (see Illustration 2.1). Nord Stream is planned to transport 55 billion cubic meters of natural gas per year supplying more than 25 million European households and businesses (Nord Stream, no date). The construction phase of this significant project, rejected by several governments, strictly argued by environmentalists and doubted by specialists, is planned to begin in April 2010. Until that, the Nord Stream AG office expects to receive all permissions from the states concerned as well as the necessary financing, including 70% of the total project cost that would come from external investors.

This expensive Russo-German initiative has gained a great resonance in the countries of the Baltic Rim- the Baltic States, Poland, Sweden, Denmark and Finland. The reasons behind these concerns are various- starting from potential threat to national security to economical and environmental.

2.1.1 Project development and ownership

Originally, the project was launched more than 10 years ago when in 1997 Finnish energy company Neste (later Fortum) together with Russian gas producing giant Gazprom registered a company North Transgas Oy, in Finland to build a pipeline between Russia and Germany via the Baltic Sea (Kuula, 2005). Since then, several initial feasibility studies have been carried out, but afterwards the process slowed down.

Several years later, in May 2005, Fortum Heat and Gas Oy sold its 50% stake in North Transgas to OAO Gazprom thus granting it a complete control over the company (Upstream, 2005).

Already in 2000 European Commission granted the TEN status to the project thus recognising it as a project of great importance for its member states in the area of transport and energy for Europe (Nord Stream, no date).

After numerous meetings between Gazprom's top executives and executives of European energy and investment companies, finally in September 8, 2005, three main project partners entered into

agreement to construct the North European Gas Pipeline (NEGP) by creating a joint venture of which 51% of the shares were controlled by Gazprom OAO, 24.5%- by BASF AG and another 24.5%- by E.ON of Germany. Later the same year the company was incorporated into Swiss Zug for the purpose of constructing NEGP's offshore section (Nord Stream, no date).

In October 4, 2006 the company and project itself got its current title as the world recognises it today- Nord Stream. A few years later, in mid 2008 Nord Stream received additional shareholders. 51% of them were owned by Russian Gazprom, German BASF/ Wintershall Holding and E.ON got 20% each and 9%- by N.V. Nederlandse Gasunie (Gazprom, no date).

New developments in Nord Stream's list of shareholders were announced just recently in May 19, 2009 when Gazprom's deputy CEO Alexander Medvedev informed that French energy company GDF Suez will enter the project "before the end of the summer" (Gulfbase, 2009). The German partners have confirmed they would reduce their 20% stock by 4.5% each allowing the French partner to enter into agreement with 9% stake. The Dutch Gasunie would keep its 9% share.

As these changes concerning the shareholders in the Nord Stream project continue to take place, Russian Gazprom is keeping its majority share in the company, thus stating that it has been and will continue to be the company's main owner and key decision maker.

Notwithstanding the impressive list of shareholders, project budget and the political backup Nord Stream enjoys, it is a company "that first and foremost exists on paper", as said by Robert L. Larsson (2008) in his analytical research for the Swedish Government. The company itself has only about 70 administrative employees working in Swiss company "Zug". All the technical staff and expertise is attracted from the mother company Gazprom which is responsible for design, construction and operation of the Baltic Sea pipeline.

Since 2006 Nord Stream lobbies have been intensively working with the governments and responsible institutions of those countries which economical areas or territorial waters are directly concerned by the construction of the Baltic Sea pipeline- Finland, Sweden, Denmark and, of course, Russia and Germany. Notifications had also been sent to Poland, Latvia, Lithuania and Estonia- countries affected by the project, but not directly involved. In order to receive all the necessary permits and carry out a wide range of required studies of economical, environmental and other aspects, not just considerable amount of time, but also money was needed.

In order to boost the dialogue with the national authorities and receive their approval to proceed with the construction of the underwater pipeline, in March this year Nord Stream submitted to the governments of the Baltic Rim countries a document, known as the Espoo Report (Nord Stream,

2009). The Nord Stream Environmental Impact Assessment (EIA) Documentation for Consultation under the Espoo Convention includes a very deep analysis of potential impacts of the pipeline along the whole route, based on detailed environmental studies. It answers the comments and questions received beforehand during the numerous rounds of consultations within the Baltic Sea countries, as well as scientific data and studies from other organisations such as HELCOM (the governing body of Helsinki Convention). Currently the evaluation of this information is taking place locally in each of the countries both within the government and on the public domain.

Although during the time this paper is researched, none of the countries have come back with its official evaluation and position, on May 29, 2009 consortium's CFO Mr Paul Corcoran expressed his expectation to receive the necessary environmental permits by December 2009 (Euroactiv, 2009, p1).

2.1.2 Project specifics, costs and investors

As one of the longest offshore pipelines of the world, Nord Stream is planned to stretch 1220 km through the Baltic Sea. 2 parallel pipelines with 27.5 bcm capacity each will ensure 55 bcm gas per annum. The pipelines will be fed by the gas fields of Western Siberia (Yuzhno- Russkoje oil and gas reserve), Yamal peninsula, Ob- Taz bay and Shtokmanovskoe (Nord Stream, no date).

The official homepage of the project states that the total budget of Nord Stream is 7.4 billion Euros thus ranking it among the most significant privately financed infrastructure projects. Initially the project costs were estimated at 5 billion Euros, however in 2008 Nord Stream announced that due to the higher global prices of steel and services, the costs will be "substantially higher" and reach the level of 8 billion Euros (Reuters, 2008).

Nevertheless, already this year the Chief Financial Officer of Nord Stream consortium Paul Corcoran informed that "the economic crisis has indeed advantages for [Nord Stream]. If we look at the fact that the second line has not been ordered, we see that steel price has reduced substantially from the estimate we made in [Nord Stream's] budget, and therefore we have now a significant contingency" (EurActive, 2009). For how much exactly it will affect the total budget, has not been disclosed.

The CFO also assured that the whole project finance will be put together in the third quarter of 2009 causing no delays for the initially planned beginning of the project kick-off date in 2010.

"The shareholders agreement for Nord Stream had a clear view on how the project should be financed. Thirty percent would be financed by shareholders' equity- that was received upfront- and the consortium holds 1.5 billion Euros of shareholder's funds. 70% of the investment cost will be covered

by external financing, coming through project financing” (EurActive, 2009).

The owners of the project claim that notwithstanding the enormous budget required, the pipeline would be profitable due to the fact that it would connect Russia and Western Europe directly without having to pay large transit fees to the numerous transiting countries. Another reason for the pipeline's economic efficiency is the decreased operating costs due to improved technical capability, like higher operating pressure (Nord Stream, no date).

The Nord Stream spokeswoman Irina Vasilyeva confirms: ‘It may be more expensive to build under-sea pipelines, but their overall costs prove to be 15 percent lower over 25 years than those of an onshore pipeline”, referring to the transit fees to be paid to transit countries (Mosolova, 2008).

The project consortium in a great deal relies on the interest of the commercial banks as the completion risk is taken by the shareholders. As weakness was mentioned project team's ability to deliver the necessary credentials on time. The financial aspect of the project is, however, doubtful- in February 2007 Nord Stream received its first rejection for finance from a serious potential partner- European Investment Bank, expected to finance 30% of the project costs or 6\$billion. The Chief of EIB Mr Philippe Maystadt said that due to “a clear opposition from several member states... [EIB] will be unable to finance this project” (Reuters, 2007).

A few years later, in February this year Nord Stream approached 30 banks to attract the necessary billions for construction of the pipeline. The office expects the first deals to be concluded by September this year (Trade Finance, 2009).

2.1.3 Controversial aspects and countries' positions

The Baltic pipeline project is seen as highly controversial in many European states. By clearly being a common Russian- German initiative, it is claimed to be a project of a common EU interest, enjoying TEN status granted by the Commission. However, roughly ignored interests of the politically and economically weaker new EU member states have placed countries like the Baltic States and Poland in a situation where it gets impossible to avoid the growing Russian leverage, energy dependency and increasing presence in the region that they have continuously tried to avoid.

If Polish politicians have called this project a “Russian- German conspiracy”, then within the Baltic states it has been emotionally compared to the fateful Molotov- Ribbentrop pact, sealing the fate of the future of these countries after the World War II (Alexander, 2005).

The Russo-German initiative is also blurred by the murky dealings involving personal interest of the high rank politicians, as well as Nord Stream has several times been accused for non-

transparency and mysteriousness in choosing the contractors and in their activity in general.

Several countries have expressed a serious ecological concern, which has been echoed also by the environmentalists in project advocate countries- Russia and Germany. A military concern has also been expressed by some of the states, caused by the increased threat of their national security.

These and other controversial aspects are discussed below, by further going into the individual positions of each of the countries involved.

2.1.3.1. Political aspects

As stated in the first Chapter of this Paper, European states have failed to demonstrate unity to reach a consensus over these truly serious and sensitive energy matters because of the great differences between them. The fact that the main partner for Europe in trade on energy is Russia adds extra challenge for the European Commission and the governments of the EU member states. For Russia, on the other hand, Europe is the major export market for its oil and gas in particular. However, regrettable is the fact that this interdependency has divided Europe rather than united it. Today's situation requires each country of the European Community to pursue its own individual agenda towards Moscow by forming bilateral dialogue on energy with the Eastern neighbour. For some it has resulted in billion-dollar deals where both parties benefit, for others, politically and economically weaker economies- an unpredictable future with potentially increased threat caused by Russia's newly developed leverage and lost opportunities.

The New European Energy Strategy envisages diversification of the gas imports. As stated by the Nord Stream executives and blindly echoed by the top officials of the European Commission, this is exactly what the new pipeline is going to offer to the European consumers. The Energy Commissioner of the EU has said that Nord Stream is a good alternative to the existing pipelines and "is not controversial" (Deutsche Welle, 2009).

For the same reason the Baltic Sea pipeline was granted the special priority status by the European Commission and across different publications it is called "a common European project". The fact, however, is that this project just diversifies the supply route but not the supply source which is the core problem for the Europeans, particularly the smaller more dependent states. It can therefore be stated that the Nord Stream pipeline adds more tension to the intra-European relations and weakens the positions of the European Union as such, thus benefiting Russian Foreign Policy interests.

Since its beginning, this billion-dollar project has been enjoying support and patronage of high rank politicians and influential businessmen, causing international criticism. Advocated by Mr. Vladimir Putin, the former President of the Russian Federation and Mr. Gerhard Schröder, German Federal Chancellor at that time personally, the project immediately gained a strong backing.

The adversaries of the WWII- Russia and Germany managed to form a close relationship through personal friendship of Putin and Schröder that they publicly call a “strategic partnership” (Deutsche Welle, 2004). This partnership definitely turned out to be “strategic” when right after Schröder’s term as a Chancellor ended in 2005, he was offered a position of the Head of the Shareholders’ Committee of Nord Stream AG. This fact gained a great negative resonance both in German and international media which saw a serious conflict of interest and whiff of corruption in this. Acquisitions like “pocketing dividends from his own political decisions” flooded the media and Schröder’s actions were considered unethical by number of German allies, as well (Der Spiegel, 2005, p1). Despite that, the former politician has never been formally charged.

This rather negative PR around Schröder’s appointment for Russian-German project didn’t stop the Nord Stream project team from similar activities in the future. Realising that the most serious resistance may come from the Nordic countries, in the beginning of 2009 Nord Stream hired a few Swedish and Finnish former politicians as consultants- undersecretary of the Swedish Prime Minister’s office Ulrica Schenström and Dan Svanell, former press secretary for many Social Democratic Ministers, joined the team. A valuable addition to the Nord Stream’s group of advisors was the former Prime Minister of Finland, Mr. Paavo Lipponen (Ullman, 2009). The Swedish and Finnish authorities are concerned that these former officials may disclose secret national information to serve the interests of their new employer.

The politicians and military experts of the Baltic countries and Sweden have expressed concern about the Russian military presence in the Baltic Sea, however such intentions are strongly denied by the Nord Stream AG.

2.1.3.2. Environmental aspects

The most serious resistance Nord Stream has received due to the environmental concerns of the countries around the Baltic Sea, which by the International Maritime Organisation is recognised as one of the most vulnerable seas of the world with a unique marine ecosystem. The environmentalists of the region claim that the project will cause an ecological tragedy, however Nord Stream, basing its

assertions on the recently published environmental research (Espoo Report) does not really agree with them.

The greatest risks, as pointed out by the countries, lie within the construction phase of the project, as several million tons of steel and concrete will be placed on the bottom of the Baltic Sea, endangering the already fragile ecosystem, causing threat to the unique species of birds, fishing stocks and flora.

The problem around the construction of the pipeline on the sea bed of the environmentally sensitive area is sharpened by the fact that during the World War II tens of thousands of tons of chemical weapons have been dumped in the Baltic Sea.

“Some of the chemical weapons were dumped in the hulls of sunken ships and we know where they are”, said the Greenpeace Russia representative Ivan Blokov, “but others were just thrown off the sides of the ships. There could be 60.000 tons of chemical weapons down there” (Osborn, 2006, p1).

The findings and conclusions of the environmental experts have caused strong reaction against the planned route of the pipeline in the countries of the Baltic Rim, including Russia and Germany.

Currently all the countries that have received Nord Stream’s Espoo Report are going through its evaluation and examination. However, in order to see the real environmental impact assessment, the environmental opposition of the project in Sweden, Poland, Finland and the Baltics require an independent environmental study for the Baltic Sea pipeline.

2.1.3.3 Countries’ positions

The Nord Stream pipeline has received a great deal of criticism from the countries of the Baltic Sea region that are excluded from the project and are unable to influence its development. On one side there are countries which will gain from the pipeline, with Germany on the lead, and on the other- those who see the project as controversial. These countries are the Baltic States and Poland in particular, followed by Sweden, Finland and others.

Germany:

Germany is the strongest supporter of the Baltic Sea pipeline within the European Union. 40% of the project shares belong to German companies and the pipeline enjoys a strong political support of the German government. The former chancellor Schröder, strongly pushing for the pipeline project

while in office, now has been granted a position of the Chairman of the Consortium's Board. The current Chancellor of Germany Angela Merkel also has expressed support for the project, although before taking the office after Schröder she expressed harsh critics towards unethical actions of her predecessor, as well as several times pointed towards the serious dependence from the Russian energy. However, after some time in the office, she was already calling the Nord Stream "a European strategic project" (Beste, Meyer, 2008, p2).

Germany is the biggest consumer of the Russian energy in Europe. After the political disputes Russia had with its transit countries, those were the German consumers that suffered most. The direct pipeline via Russia and Germany would eliminate such moments in the future.

Estonia:

Since the beginning of the project Estonia has been the country opposing the Russian- German initiative the most of its Baltic and Nordic neighbours. Within Estonia the Nord Stream consortium has to face opposition not just from the environmentalists, but also from the government of this Baltic state which even dared to deny the access to its territorial waters for Nord Stream pipeline's research purposes. Because Estonia had taken this hard line, the consortium had to rely solely on Finland.

Estonia and the other Baltic States, strongly supported by Poland, stress that the Russian-German pipeline will jeopardise their energy security and that by realising this project Russia can easily cut off gas delivery to these particular countries without affecting the "golden" customers in Western Europe.

Estonian diplomats have several times stated that Estonia prefers projects that "increase energetic security of the EU in general and its members individually, strengthen solidarity between the EU member states and facilitate the diversification of the supply sources" (CGS, 2009).

Latvia:

So far Latvia's position towards Nord Stream pipeline has gone hand in hand with the views of its neighbouring countries- Lithuania and Estonia which together with Poland strongly push for the alternative over-land project for gas delivery to Western Europe by crossing the economic areas of these respective countries. The Baltic States and Poland naturally do not want to miss the opportunity for receiving transit fees for Russian gas traffic. In a situation when Russian gas bypasses territories of the Baltic States, they also lose leverage over affecting the gas prices, which in great extent worries

the Baltic and Polish governments. The Latvian voice, however, has been much quieter than the one of its allies. The president Valdis Zatlers has said that Latvia prefers other alternatives over Nord Stream that have "the same economic efficiency, but from security and environment point of view are much better" (Global Insight, 2008). The rather calm opposition to the Nord Stream route may also mean that the country is seriously working on development new alternative supplies for energy and does not rely on Russian energy imports and potential income from transit fees.

All three Baltic States have been disappointed by the passive approach of the European Commission that does not defend their interests. The states consider that Nord Stream segregates Europe and does not address the energetic isolation problem of the Baltic States, which had earlier been defined as priority for the EU.

Lithuania:

As the rest of its allies, also Lithuania is deeply concerned about the environmental impact of the pipeline. The project has gained a great resonance in the Lithuanian society which has initiated an online petition gathering signatures for further representation to the European institutions, including the European Parliament. The aim is to convince the EU to carry out an independent research about the impact on Baltic Sea's fragile ecosystem (Raguzina, 2007).

The Lithuanian president Valdas Adamkus has said that the Baltic countries in their energy relations with Russia need "a dialogue that would be in compliance with the basic EU principles: transparency, solidarity, efficiency and, what is most important- stringent environmental requirements." (Office of the President, 2009, p1). As the other opposing states, Lithuania only has got the environmental argument at its disposal to further object the upcoming Baltic Sea pipeline and is trying to make most out of it. The President also mentioned that along with the negative impact on the environment pipeline project might bring, it has already caused a serious negative effect without being started yet. According to the President- "the Nord Stream project has already de facto divided the Baltic Sea Rim countries" (Office of the President, 2009).

Poland:

Poland, speaking in one voice with the Baltic States, has been one of the strongest, if not the strongest opponent of the Nord Stream pipeline expressing its fear of Russia using its energy as a political weapon. The country has several times publicly declared that Russia will have to comply with the Polish requirements if the pipeline will cross its territory, so a natural outcome of the pipeline route

has been to avoid the Polish influence zone. Top rank politicians have called the project “a nightmare” (Alexanders, 2005) or “Putin’s- Schröder’s pact” (Raabe, 2009) and claimed it will compromise the Polish energy security (Reuters, 2008). Kremlin has replied by saying that the Polish attitude is “hysterical” and claimed Poland has been annoyed by the fact it will not receive the transit fees from the Russian gas transiting its territory any longer. Germany is in similar opinion and has been irritated by the Polish rhetoric, aimed at Germany’s partnership with Russia initiated without prior consultation with Poland (Fraser, 2008).

Poland is the initiator of the Amber pipeline project idea discussed further in this Paper and is strongly pushing for this alternative, counting on and receiving the support from the Baltic States (EU Business, 2006). The main arguments are the economic efficiency of the over- land project and better environmental situation.

Sweden:

The implementation of the project depends on Sweden in a great extent as the pipeline is planned to run through the Swedish territorial waters. So far Sweden has not just openly expressed its serious environmental concern and criticism about the pipeline, but also it has doubted the necessity of the pipeline in general. Swedish authorities also see the security threat in the project, i.e., that the pipeline will require Russian military presence in the Swedish territorial waters and on the island of Gotland which the pipeline will approach very closely (Larsson, 2007). Swedish security specialists have expressed fear that the Russians may use this pipeline installations for espionage, to what a Russian ambassador to Sweden reacted in a very undiplomatic way: “I cannot understand what kind of idiot could report his superior such a thing”, he said, and if Russians would really have similar motives, they would be able to realise them anytime over satellites through which it is possible “to read the number plate of every car in Stockholm” (Fraser, 2007). Following these sharp remarks, Nord Stream finally granted Sweden unlimited access to all installations.

Nevertheless, Sweden realises that it only has the environmental argument to object the project and delay its construction; therefore currently it is carefully examining the Espoo Report of the Nord Stream. Sweden has also called Nord Stream to examine the land based alternatives instead of constructing the pipe via the Baltic Sea; however it is not promoting the Baltic and Polish Amber projects or any other project in particular.

Finland:

As described earlier in this Chapter, the Nord Stream project originally started with Russian-Finnish cooperation. Later Finnish companies withdrew from the project thus losing any possibility for the Finns to directly influence project's future developments. Nevertheless, the Finnish government since the early stage of the project has been supportive towards the pipeline. The Finnish President Tarja Halonen has confirmed that "Finnish concerns about the pipeline were environmental rather than political" (Fraser, 2007).

Taking into account the strict Estonian resistance and their shaky relations with Russia, it is expected that the pipeline will stretch along the Finnish territorial waters. This in a great deal worries Finnish environmentalists, as well as security officials, however it has not affected the government's position so far. The controversies around involvement of the Finnish ex top politicians in the murky deals of Nord Stream also do not run in favour of the Finnish society and Finland's international reputation.

Environmentalists of Finland are particularly concerned, because "there is a huge political pressure to build the pipe, it is likely that decisions will be made fast without thinking too much" (Kinnunen, 2008). Finnish environmental agencies and WWF Finland office have confirmed their readiness to go to court. In case of this scenario, it would delay the construction of the pipeline for several years (Kinnunen, 2008).

Denmark:

Denmark so far has not formally objected the pipeline after receiving Nord Stream's report about environmental impact of the pipeline. The country however, has raised concerns about the toxic materials and chemical weapons drowned in the waters of the Baltic Sea during the Second World War.

Due to the sea border dispute with Poland, the pipeline was moved to the South of the Danish island Bornholm- prior source of concern of the Danish government. Thus, the Nord Stream consortium will not have to deal with strong Polish resistance eliminating any chance for Poland to influence Nord Stream's construction process. The Danish government has welcomed this approach as the new route of the pipeline is moved further from the areas where the specialists discovered the munitions' dumped during the WWII (Fraser, 2007).

2.1.4 Latest developments

The negative reactions of the involved countries towards Russian-German project have in a great extent annoyed Moscow. The Russian officials have several times come out with rather neutral statements, reassuring that the project is purely a business operation and is as beneficial for Russia as for Europe. Also Nord Stream group has indefatigably worked with the governments, authorities, media, NGOs and civil society of the countries involved, responding to their doubts, fears and questions, delivering feasible studies requiring substantial cost.

Although, if more likely the reaction of the former Soviet countries did not come as a surprise for the Kremlin and the project route avoiding their territories clearly proves that, the reaction of the European Union has caused a great disappointment and irritation.

The EU's New Energy Policy and Energy Security and Solidarity Action Plan issued by the European Commission on November 2008 present the EU's ambition to reach the so called "20-20-20" goal. It means reduction of greenhouse gas emissions by 20 per cent, cutting overall energy demand by 20 per cent and increasing the share of renewables also by 20 per cent.

The Kremlin has observed the great enthusiasm Europe is devoting to decreasing its energy dependence from Russia with increasing concern and has expressed its disappointment over it. It claims that Russia has been a reliable partner for Europe what concerns the energy supply even during the Cold War and now, Europe on one hand is asking for the new pipeline with increased capacity, on the other hand it is looking for the ways to avoid the Russian energy.

On 13th of November 2008 Russian Prime Minister Putin for the first time since the beginning of the Nord Stream project doubted the construction of the pipeline during the EU- Russia summit in the presence of the leaders of the European Union member states (Pop, 2008). In his opinion "Europe didn't show enough commitment", EU Observer (2008) reports. Because of the price drop for natural gas during the past 2 years, Gazprom has obviously started to question the profitability of the pipeline project.

The words of the Russian leader were so strict, that they even sounded like a threat towards Europeans: "Europe must decide whether it needs this pipeline or not. If you don't, we will build liquefaction plants and send gas to world markets, including to European markets. But it will be simply more expensive for you.", he warned (Pop, 2008).

After Putin's statements, also Germany's strong position shook and the Germans admitted that they would not "insist on the Nord Stream project if it doesn't make business sense" (Pop, 2008).

After these unexpected announcements the Nord Stream project process seems not to be affected. The accomplished Espoo Report has been handed in to National governments of the involved countries for evaluation and the recent statements of the Nord Stream managers are nothing but positive and optimistic.

2.2 Other major energy initiatives

The Nord Stream pipeline project has made several of the EU member states worried about their energy security. The way Kremlin has so far been able to use its energy power to reach its political and strategic interests, has made them even more alarmed over increasing Russian leverage. After realising their weakness against the two superpowers behind the Nord Stream project, smaller European states have been constantly searching for other alternatives to the Baltic Sea pipeline. A few of them have been described below, looking from the prospective and potential interest of the Baltic States.

2.2.1 The Amber Pipeline

Poland, together with the Baltic countries Latvia, Lithuania and Estonia, has come up with an alternative project to Nord Stream, delivering Russian gas to customers of the European Union. The Eastern EU member states hope to convince Russia that this over land solution would be much cost efficient than the underwater Baltic Sea pipe, which carries along a great environmental risk. The pipeline is planned to be built over the territories of the three Baltic states and Poland, therefore called the “Amber route”.

Being aware that Russian and German intentions are to limit the number of transit countries due to political instability in relations with them, the Poles assure that “there is no political risks at all, the pipeline would run across the territories of Russia and European Union countries, which will definitely stick to transit agreements” (Global Insight, 2008). There are, however, no official calculations on how much such project would cost. The Polish diplomats in their Amber pipeline promotion speeches claim the estimated cost of about \$3 billion, which is 4 times less than the Nord Stream would require (Mosolova, 2008).

The cost and environmental aspect are the two main arguments in favour of the Amber pipeline. Not surprisingly these are the two most serious stumbling blocks of the Nord Stream. The Central Eastern European states have not also been hiding their growing energy security fear, i.e., that with Nord Stream in operation, Russia will be able to cut off gas supplies for the non-compliant neighbours

without affecting the customers in the Western Europe.

The Kremlin and other Nord Stream advocates claim that the real intention for Poland and the Baltics lies within their unwillingness to lose the opportunity to benefit from transit fees that they would potentially receive if Russian gas was to cross their territories (Steenblock, 2006). Russia's reply has been that if it would be willing to do so, cutting energy for the Baltic consumers could be done any moment as the Baltic pipeline system is not linked to the Western Europe as in the case with Ukraine.

The above arguments seem reasonable and the intention behind the Polish and Baltics' calls for seeking independence from Russian energy are not really sensible in this respect as the Amber route would deliver the same Russian gas, presenting no diversification of supplier.

Finally, regardless of Polish, Latvian, Lithuanian and Estonian diplomatic attempts, Kremlin disapproves the Amber pipeline and does not think "it is very profitable or acceptable" (EU Business, 2008).

2.2.2 South Stream and Nabucco pipeline

The other major projects aimed at diversifying gas deliveries to Europe do not directly involve the Baltic States. These projects, however, are beneficial for the European Union in general therefore in this respect they indirectly improve the energy security situation also in the Baltic region.

The Nord Stream's sister project South Stream is planned to deliver Russian gas from Russia to Italy through the Black Sea. This project is viewed as a strong competitor to the Nabucco pipeline, which would deliver natural gas from Caspian region to Western and Central Europe via Balkans, bypassing Russia. Both projects are estimated to be finished at the same time, in year 2015 (Reuters, 2009).

The energy experts consider the Nabucco pipeline a strategic tool in the hands of the EU that "may be as much a useful strategic political tool as an energy source" (Marquand, 2009). In this respect Nabucco would be more advantageous for the European Union, because it not just presents diversification in supply routes, like South Stream, but also diversification in supplier. The Nabucco project that has been stalling for several years, on 13th July this year gained a momentum when its transit countries- Turkey, Bulgaria, Romania, Hungary and Austria signed the Intergovernmental Agreement on construction of the pipeline (Kardas, 2009). European Commission is ready to finance the project, and commitment to provide funding has also been received from EIB and EBRD earlier this year (Deutsche Welle, 2009).

However, there are still many open questions concerning the attractive Nabucco route and the main one is if the pipeline will have enough natural gas to satisfy the European needs. Until July this year the only source of gas was considered Azerbaijan which since the beginning of the project has been showing support to the Nabucco initiative. During the above mentioned high level meeting in Ankara, also Turkmenistan announced it would be ready to give its natural gas reserves to Nabucco. Previously being able to transport its natural gas only via Russian pipeline system, it sees new opportunities for its natural gas business provided by the Nabucco line. Iraq, Egypt and Syria are also considered as potential suppliers (Kardas, 2009).

The given situation in a great deal worries Russia as along with the launch of Nabucco pipeline, the Russian South Stream loses its strategic importance. Taking into consideration the threat Russian energy dependency causes for Europe, Nabucco pipeline has a good chance to become the priority project for the EU.

Key Findings

Projects like Nord Stream confirm strategic direction Russia has taken in energy matters- although it does not present an obvious economic advantage, it clearly delivers political gains and allows Kremlin to realise its major Foreign Energy Policy goals of excluding the transit countries from business with the biggest consumers in Western Europe and allows Russia to increase its leverage over its neighbouring states. The pipeline is surrounded by different serious controversies of political, ecological and military manner as well as there is huge lack of transparency. Also the financial backing of the project is rather doubtful. The strongest side of the Nord Stream project is its high-level political support, however, even that has been shaken lately. Notwithstanding this, the opponents of the project lack strong arguments against the construction of the pipeline and also the support from other EU countries is missing.

The Amber pipeline will unlikely be realised as it has no real justification. The most potential project for the EU is the Nabucco pipeline. It is in line with common European principles and targets set by the European Energy Strategy.

3. Chapter- Towards decreasing the threat of energy dependency.

Existing dependency threat is keeping European countries in constant strain; therefore energy security has already become a question of national security. However, despite that some of the politicians still believe that partnership with Russia poses no threat to the countries and continue to work towards "strengthening" the relationship with Kremlin which especially during the last few years has openly influenced the weaker dependent states along its periphery.

As stated in the previous Chapters, the Baltic States have very limited locally produced energy resources, and the share of imported energy is considerable. Already this year the Baltic energy market will be challenged by the gap in energy supply caused by upcoming closure of the Ignalina nuclear power plant in Lithuania. The countries are influenced by the trends in the global energy market, as well. For the Baltic States there is the burning issue of energy dependency from one particular supplier. All three countries, as well as the European Union have considered it absolutely necessary to take a row of measures to decrease this dependency in order to improve the energy security of the region. The isolated Baltic energy market in this respect requires huge investment. Unfortunately, today's critical situation in the global economy has put the governments in position where it is impossible to find the necessary investment for the energy sector.

In addition, all three Baltic States as members of the European Union, have committed to targets to increase the use of renewable energy resources, set by the Union, as well as to decrease the amount of greenhouse gas emissions. It has been agreed to increase the share of energy produced from RES from 18 to 25% in Estonia, from 35 to 42% in Latvia and from 15 to 23% in Lithuania, already by year 2010 (European Commission, 2009).

Taking into consideration the Energy Policies of all three countries discussed previously in this Paper, as well as common Baltic Energy Policy and a common Policy of Europe, their targets, existing threats and interests of economical and political manner, as well as planned major projects, this Paper further investigates the opportunities for the Baltic countries to reform their energy sectors by focusing on ensuring energy self-sufficiency, improved energy efficiency and new partnerships that can contribute to decreasing dependency from energy imports and preventing the state of isolation.

3.1 Dependency- generated security threat

Europe's dependence on Russian energy has become a source of considerable concern for the EU member countries. The energy matters are highly political therefore sensitive. It is proved by the fact that short disruptions, lasting only for several hours, not even days, created tremendous impact in the Western world. The energy security questions immediately jumped up in the list of national priorities and dependent states quickly initiated actions on reforming their Energy Strategies.

The European Union has continuously tried to work out how to deal with Moscow's increasing energy leverage. It has initiated several projects allowing receiving energy from other regions of the world and diversifying away from the fossil sources, primarily Russian oil and natural gas, to reach a higher level of energy self- sufficiency of the region.

EU member countries have also been able to agree upon several legal acts ensuring further diversification of energy supply sources on the account of renewable energy, decreasing energy consumption and fostering the battle against climate change.*

The energy business is highly political and Russian leaders have several times stated publicly that in the energy matters the receiving countries will have to deal with the state. If for the Kremlin the question of energy first of all is of a strategic importance and only after that- economic, then for most of Europe it is first and foremost economic and only then, strategic. Economic concerns of the smaller EU states, like the Baltics, are increased by the growing threat the assertive Russian Foreign Energy Policy causes for countries' National security. Russia has been using its energy power repeatedly for gaining political leverage over the countries of the ex-Soviet block, including the Baltic States themselves, and more likely is going to continue in similar manner as the foreign relations between the Baltic States and Russia are not improving due to different values, strategic targets and positions.

The Baltic States, due to the historical infrastructure are among the most energy- dependent countries within the EU, if looking at dependence from Russian energy sources. They have 100% dependence on Russian natural gas, the share of which in the total energy consumption continues to grow. As much as 90% of the oil imports the region receives from Russia (EOE, 2008). Out of three countries, Latvia even imports Russian electricity.

These serious dependency facts have been a reason of concern for the Baltic countries for a long time and it has urged them to reconsider their Energy Strategies and act stronger within the international community. Joining forces with the countries of the EU for the purpose of creating a joint European

* Energy Strategy for Europe 2008, The Climate action and Renewable energy package, 2008

Policy towards increasingly assertive and energy rich Russia has been the priority for the Baltic States. Suffered from Russia's assertive actions also in the past, the Baltic States were heard on the European level only after Europe received actual threat to their energy security from the Eastern partner.

While European fragmentation in the energy matters adds more leverage for the Kremlin, the threat for European energy security increases. In most sensitive situation are the smaller dependent states which during the time of economic difficulty are limited in their activities and resources. These limitations prevent them from quick and efficient implementation of the elaborated strategies, crucial to ensure not just energy, but also their national security.

The energy- dependency threat for the Baltic States appears in the following areas:

- Russia will diversify its exports away from the EU, concentrating on the growing markets in the East, leaving Europe in energy deficit;
- Russia will continue to use its energy as a lever to influence the political decisions of the EU thus achieving that Europe is divided in its views even further;
- In the same way Russia may gain leverage over the Baltics and influence countries' political processes;
- European states will fail to cooperate and will proceed with their different agendas towards Moscow, each concentrating on their own interests and energy strategies, leaving the Baltic states in even weaker negotiating position;
- With this powerful political tool at its disposal, Russia will pose threat to countries' national security;
- Russia may direct energy cut-offs also towards the Baltic states, threatening countries' energy security;
- The Baltic states will not be able to build pragmatic business relations with Russia that will result in price increase for oil and gas;
- Russia will expand its operations and ownerships in the field of energy within the Baltic states, thus gaining stronger control of the downstream assets;
- Russia will diversify the oil transit routes avoiding Baltic ports thus causing loss for national economies.

Several of these threats have already materialised and it is obvious that Russia has been using its energy reserves as a tool for reaching political and economic gains. This Chapter further explores the circumstances under which the threat became real in the past and what should be done in order to protect the countries' from negative influences caused by the energy dependency in the future.

3.2. Russia's assertive actions and motives

Already mentioned cut-offs of natural gas supply to the number of European countries in January 2006 and January 2009 confirmed that the reliability of Russia as a safe energy supplier has suffered considerably. At the same time Russia, on the other hand, was justifying its actions by claiming that Ukraine has been stealing gas, meant for the European consumers and taking advantage of prices subsidised by Russia (BBC News, 2009). EU in this respect discredited both countries involved in this conflict- Russia as a supplier and Ukraine as a transit country and Kremlin's actions raised the level of fear in the European states, having high dependence on Russian energy imports. Interestingly enough, Europe's active "anti- Russian energy movement", involving series of measures to decrease the dependence from Russian energy, began only after these particular disruptions and similar cases that had happened in the past, were not taken as a threat serious enough to endanger the European energy security.

Already in early nineties Russia under Yeltsin repeatedly practiced cut-offs of energy supplies to the Baltic States for political reasons thus punishing them for their independence movements. Similar assertive actions directed at the Baltic countries followed in 2003 when Russian state-owned company Transneft shut-off the oil pipeline to the biggest Baltic port in Ventspils, Latvia (Baran, 2008). The reason behind it was refusal of Latvian government to sell the shares in Latvian export terminal to Russians, thus denying acquiring of a major downstream asset of strategic importance. The Kremlin at that time did not even deny the political intention behind the exerted pressure over Latvian government. A top Transneft executive later expressed the Russian annoyance stating that "oil can only flow from Russia. [Latvia] can of course sell the port to Westerners. But what are they going to do with it? Turn into a beach?" (Baran, 2008). After shut down of the oil pipeline, Ventspils terminal which used to be the leading Northern export route for Russian oil, lost its positions together with the considerable share of profit, as the railway oil deliveries were not enough to utilise the great capacity of the terminal. The Russian oppression ended with Latvia's government having to sell its shares in the terminal on Riga Stock Exchange (Global Insight, 2006).

In August 2006 history repeated itself and Russian oil monopoly "Transneft" shut off the oil

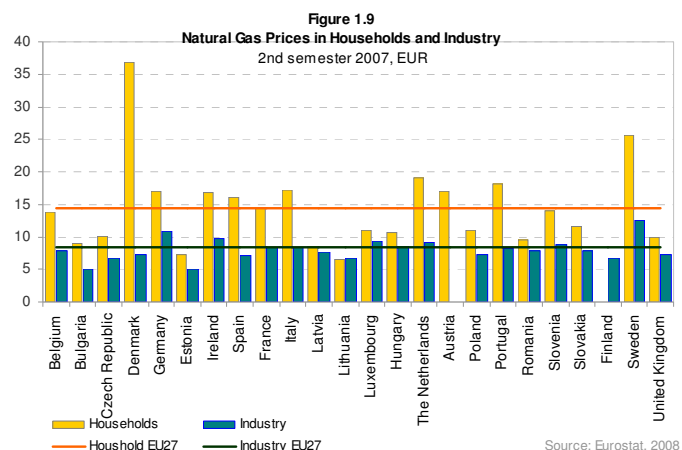
stream to the Baltics, this time for Lithuanian "Mazeikiu nafta" (Torbakov, 2006). Moscow claimed it to be a technical problem, however, quite obvious is the fact that disruptions occurred just a few weeks after Lithuanians sold their oil company to the Polish investors, not to Russian LUKoil, as desired by the Kremlin. This pipeline was the main source of oil for the Lithuanian refinery, which is also the only oil refinery in the Baltic region. After halt of oil supply, the profit of Mazeikiu nafta shrank five times, compared to year 2005 when it was still receiving Russian oil stream and demonstrated high profitability (EU Business, 2007). Now the refinery feeds from much more expensive transport of oil by tankers. Obvious political implications lie also behind this Russian act that in the end caused negative effect for Baltic economies.

Russia's energy weapon has been directed also against Estonia. After the political conflict between the latter and Russia over removal of a monument to the Red Army, so called "Bronze soldier", Kremlin-controlled railway company stopped deliveries of Russian oil to Estonian ports. For Estonians oil transit is a very important business- Russia ships nearly 25 million tons of oil and petrol through Estonian ports (Halpin, 2007), and needless to mention that these disruptions caused a serious damage to country's economy. As in previous cases, Russia first claimed it to happen due to technical reasons; however the political conflict in the background speaks for itself.

After the incident with the "Bronze Soldier" Estonian and Russian relations got even worse. In June 2009 Russia's Deputy Prime Minister Sergei Ivanov announced that Russia "will start to reduce railway transportation of [Russian] heavy fuel oil to Estonia" and he also confirmed that in a year the deliveries will be stopped completely (Railway market, 2009, p1).

Another area of considerable risk for the energy sector of energy-dependent states lies within prices for oil and gas. In 2008 these prices reached their absolute peak because of the economic boom. Today, in the situation of global financial crisis, the global prices for oil and gas have dropped; however, as confirmed by the International Energy Agency (2009), they will continue to grow slightly, but never reach the level of 2008 again.

Over the last few decades Russia has been gradually raising the prices for its energy for the Baltic energy companies. Already in mid nineties Latvia, Lithuania and Estonia paid the



world prices to Russia for its oil and gas (Bohlen, 2007). As a result the historically subsidised low energy prices of the Baltic markets have come closer to average European price level (see Figure 1.9). This activity has not been received as a political threat, but rather expected business-driven activity aimed at bringing the historically subsidised pricing closer to the world level, which the Baltic countries were prepared for. However, because of Russia's unpredictable actions directed towards the countries of the ex-Soviet block, it can not be excluded that the Baltic States will not experience an unexpected price hike in the future.

Above mentioned examples of coercive Russian pipeline diplomacy have urged the Baltic States to take the following measures in order to increase their independence from Russian energy. Diversification of energy sources, as well as diversification of suppliers, development of renewable energy produced locally, improved energy efficiency, stronger presence and activity within the EU and building new partner relations are the main areas the Baltic governments, businesses and also individuals are focusing on in order to reach greater independence from Russian energy sources in the closest future.

3.3. Diversification of energy sources

Guided by the common target of decreasing energy dependence, the Baltic States either domestically or through collaboration on regional and international level, have searched for alternatives to replace the growing share of imported energy. In order to decrease the risk of becoming so energy dependent that it becomes not just a threat for secure energy supply at affordable prices, but also a question of national security, the countries have foreseen implementation of several measures. Some of the alternatives will be discussed further in this paper focusing on priorities shaped by the Baltic energy policies.

3.3.1. Renewable energy

The growing demand for energy, limited fossil sources, as well as environmental concerns have caused increasing interest about the renewable energy sources worldwide.

Natural energy sources such as wind, water, sunlight, and biomass are considered renewable. Energy produced from these sources is also considered more environmental friendly. As production and consumption of energy is the main cause for GHG emissions, this area has become particularly interesting in terms of climate change issues.

During the past five years, according to the Renewables Global Status Report 2009, production of renewable energy grew significantly worldwide, presenting 75% increase of power capacity. Last year (2008) was especially successful for this industry, demonstrating 29% growth of wind power, 70% growth of grid-tied solar power and 34% of both- ethanol and biodiesel production. In addition, 2008 was the first year when the European Union added more power capacity from renewables than from traditional sources, such as oil, gas, coal and nuclear. Due to the environmental aspect, renewable energy has high future potential. Many governments have adopted policies fostering production and use of renewable energy that also goes hand in hand with the initiated battle against climate change. Set environmental targets are expected to reduce emissions of carbon dioxide and the countries producing renewable energy decrease the risk of suffering from potential negative political and economical influences, caused by energy dependency, price increase and other external factors.

The European Union in its new Energy Strategy has defined a rather ambitious target for the use of renewable energy. By 2020 every member state has to increase the level of renewable energy usage by 20%. Currently RES hold a rather small share in total primary energy consumption within the EU. The highest numbers are in the Nordic countries, as well as in the Baltic States, especially Latvia where RES account for one third of total primary energy sources (see Table 3.1).

Table 3.1
Share of Renewables to final energy consumption

Per cent (%)

	2006	Target 2020
EU-27	9.2	20
Estonia	16.6	25
Latvia	31.4	42
Lithuania	14.6	23

source: Eurostat, 2008

The Baltic States in their National Energy Policies, as well as in the common Energy Policy for the Baltic region have set production and consumption of RES as one of the priorities. An increase of the share of RES in the total energy production and consumption picture will contribute to the improved energy self-sufficiency, thus decreasing dependence from energy imports of Russian oil and gas. The other major benefit will be reduction of GHG emissions thus allowing the Baltic states to reach the targets set by the European Union and other International Organisations- the countries have ratified the UN Framework Convention on Climate Change (UNFCCC), as well as Kyoto Protocol, linked to the UNFCCC, both committing them to reducing GHG emissions (UNFCCC, no date).

Production of RES has also other major benefits, crucial for the countries that suffer from economic crisis- new RES production plants create additional labour places and in longer run provide benefit for countries' economical development.

The main renewable energy products and sources in the Baltic States are:

- Electricity, generated from hydro sources, wind, wood, peat and biogas;
- Heat, generated from wood, peat and biogas;
- Liquid bio fuel, biodiesel and ethanol, generated from rape seed and grain;
- Carbon credits derived directly by reduction of fossil energy (EVD, 2009).

Notwithstanding the rather high share of RES in the total energy production picture, the Baltic States still have very high unused resource potential, especially what concerns energy production from wood, biomass and wind. All three countries have acknowledged that in their National Energy Strategies. This potential should be utilised at least to the level, stated by the European Union, which constitutes 25% for Estonia, 42% for Latvia and 23% for Lithuania out of final energy consumption (see Table 3.1). These targets have been approved by the Heads of State of Governments of the Baltic States in March 2007 as part of the common EU Energy Policy with a goal of reducing the negative effects of climate change (EurActiv, 2009).

Besides the EU-defined targets, Latvia and Lithuania have set their national targets, as well. These targets are particularly high in Latvia, raised to 52.67% in 2009 and 54.57% in 2010. Thus the country plans to reach that more than a half of consumed energy is produced from local RES (LETA, 2009).

In all three countries production of green energy is also stimulated by countries' fiscal policies. In order to promote use of bio fuel, governments offer excise tax relief, as well as progressive Pollution Tax serves as additional motive for using bio fuel (European Commission, 2007).

The area of renewable energy is also attractive for investors, being particularly interesting for the countries in this difficult economic situation. For example, in June 10, 2009 EBRD confirmed 18.85 million EUR investment to develop 15 wind farms in the Baltic States to boost the green energy production volumes that after this project is realised, are expected to triple the regional wind power capacity, covering about 3% of total energy consumption in the Baltics (Coretchi, 2009).

Green energy is viewed as the most beneficial area with highest future potential for development of the Baltic States energy market not only for the private businesses, but also for governments. It helps to solve several crucial questions of economical, environmental and political manner. This is the area that will develop fast within the next years and the policy makers should invest effort to create the RES market well-functioning and beneficial for both- producers and consumers. The energy producers on the other hand, should focus on decreasing cost for RES as at the moment with existing agreements of importing energy sources from foreign suppliers in place, the RES are not competitive and still are comparatively expensive.

3.3.2. Liquefied Natural Gas

LNG is natural gas that has been converted in liquid form for easier transportation and storage purposes to the consumer countries where the pipeline system does not reach. Currently LNG accounts for only 7% of global natural gas demand, as still most of the gas is delivered through pipelines (Cook, 2005).

European states, including the Baltics, see LNG as opportunity to diversify sources of imported energy. Due to the political risks connected with natural gas pipeline deliveries from Russia, gas-dependent countries see LNG as alternative to cover their needs for natural gas. The Baltic States have considered building LNG terminal and in this case the natural gas would be received by tankers either from Norway, Algeria or Qatar which are next biggest natural gas suppliers for Europe, after Russia.

The negative aspect of LNG usage is its higher cost due to the added expenses on the account of technology used for creating LNG and transport. As the above mentioned producer countries are much more further from the Baltic coast than Russia, the most convenient supplier in this respect would turn out to be Gazprom. In this case the Baltic States would lose financially and not gain in terms of security as they would receive the same Russian gas, but due to different form- several times more expensive.

3.4 Energy Efficiency

An important and cost-efficient way to reduce existing dependency from Russian energy resources thus increasing the energy security for the Baltic States is to improve the domestic energy efficiency. This is the area where most of the quick benefits are possible to achieve in rather short term and with not so high investment, which is crucial for the states in today's economic situation. The energy intensity per unit of GPD in the Baltic States is much higher than the average EU. The EU Commissioner for Energy has pointed out the huge Baltic potential in reducing energy consumption in the region, as "20% improvement in energy efficiency by the Baltic states is comparable to the capacity of a possible new gas pipeline to the region" (Piebalgs, 2007).

Improving energy efficiency means both- to decrease the consumption level and reduce costs for energy. Energy efficiency should cover all areas of the energy supply chain, including production, distribution up to the end consumer and that can be done by policy makers, producers and each individual consumer. According to the EU estimates, almost one third of the total energy consumption is used by the households. The biggest loss of energy is caused due to the buildings that require renovation and replacement of heating systems.

All three Baltic countries through government programs and legal acts have thought about improving energy use in households and businesses. For the purpose of increasing energy efficiency in buildings and transport, the European Union offers to support the countries with co-financing as it serves the prior EU target of increasing member states' energy efficiency by 20% until year 2020. Several countries, including the Baltic States, also have considered gaining extra funding for the purpose of increasing energy efficiency from selling their CO2 emission quotas, regarded by the Kyoto protocol.

The National governments should form their regulations of energy market in a clever way- provided economic incentives for households and businesses for improved energy efficiency should direct to reaching national interests and defined targets.

The governments should focus even more on building public awareness on energy saving, which notwithstanding the numerous educative programs is still very low. This is due to the reason that historically the Baltic consumer has been enjoying relatively low energy prices and use of energy in many households and industries is not well-considered.

The Baltic States could work more towards the energy efficiency promotion. For example, in Latvia the Legal Act on Energy Efficiency has still not been approved by the government. A clear policy is the first step to a quick result, and the countries should steer the private business sector towards investing into energy efficiency solutions. Moreover, if the financial resources are so limited at the moment, but there are several "quick-wins" in the area of energy efficiency, then not only the state will benefit, but also the end consumer.

Overall, it must be understood that no matter what kind of measures are taken on the government level, how much money has been invested in promoting renewable energy resources and building new plants, and what effort is devoted to diversification of energy sources, if the end consumer will continue to use the supplied energy inefficiently, the countries will never achieve the desired targets of decreased energy dependence.

3.5 Future domestic projects

Following the strategic priority of reducing energy dependence from Russia and diversifying the energy supply sources, all three Baltic countries have plans to develop several projects of large scale ensuring their energy self sufficiency in the future. Unfortunately, in many occasions these projects are not in compliance with the common Baltic Strategy which focuses on activities creating a common market and initiation of common projects. Lately in the media and also on the government level it has

been announced that the countries' views on their energy future differ and each of them have different ambitions and opinions on development of their energy market. A few examples, demonstrating these differences are discussed below.

3.5.1 Nuclear power plant

The Baltics are committed to accomplish this project of 3000 megawatt capacity by 2015 at the estimated cost of about 6.5 billion Euros (\$9 billion). The plant itself is meant to serve as an electricity hub between Europe, the Nordics and Russia, and it has been confirmed that the neighbouring countries- Poland and the Nordic states that the latter are interested in energy produced by the Baltic nuclear plant. Poland has expressed it would expect 1000 megawatts from the new plant, and Latvia and Lithuania- 400-600 megawatts each (Adomaitis, 2008). The interconnections to Poland and Sweden would also strengthen the Baltic energy security by diversifying energy supply sources.

As stated previously in this Paper, after closure of Ignalina nuclear plant in Lithuania, the Baltic region will lose the major energy producer. Nuclear energy is considered very important for the regional economy, therefore all three countries in February 2007 on the highest political level agreed on building a new nuclear power plant in Visagina, Lithuania near the Latvian border. Also Poland has been invited to participate in the project. The projects main goal is to "strengthen the region's energy independence from Russia" (Adomaitis, 2007). The new project is planned to be finished until 2018 (New Europe, 2009).

In July 2008 the energy companies of the four partner states established the project development company "Visagino Atomine Elektrine" (VAE). The host country Lithuania was granted 51% of the shares, while the rest got 16% each (WNA, 2009).

Construction of the reactor is planned to begin in 2012, as per latest construction plan of January 2009. However, a month after Estonian government came with an announcement to build its own nuclear power plant of 1000 MWe capacity. Previously in the public space both- Latvia and Estonia considered building their own nuclear power stations, until Estonian government made it official by approving the National Energy Economy Development Plan and Electricity Economy Development Plan, where besides forceful decrease in oil shale energy lies an objective to build the nuclear power plant by 2023 (Tere, 2009).

On the day when Lithuania's parliament adopted the law on building the nuclear power plant, Lithuanian prime minister said: "Lithuania has made a strategic step which will enhance our energy independence and strengthen our cooperation with partners in the region" (Adomaitis, 2007).

Estonian actions, on the other hand, prove the opposite. An inconsistency in decisions clearly points towards a deep crack in Baltic unity, which can bring serious consequences considering the small size and vulnerability of the energy market and taking into account the complicated relations with Russia and existing dependency.

This can also be translated as digression from the common Baltic Energy Policy that sets targets on regional level and to which all three states committed themselves to.

While the potential partners are shifting back and forth in their opinions, there is less and less time left until the countries run out of energy supply guaranteed by the Ignalina nuclear plant. This means only one thing- that the imported Russian natural gas will increase its portion in the Baltic energy balance already next year.

3.5.2 Coal or gas, or both?

In the Baltic States, particularly in Latvia and Estonia, a coal fired power station has been discussed as alternative energy production unit. This solution however causes environmental concerns as fossil fuels create pollution more than any other source. On the other hand, coal prices are lower than those of oil or gas. Also the infrastructure of the Baltic States, that is, railway and ports, are suitable for coal transportation.

Highly doubtful is the argument of several political forces in favour of the coal station that by building one the Baltics will decrease the energy dependency from Russia, taking into account the fact that Russia holds almost one third of the world's estimated coal reserves (Tuzhikov, 2003).

The coal transit, however, is an important business for Latvian and Estonian ports. The latter have opted for investing in modern environmentally friendly coal terminals, transporting coal from Russia to Western Europe and the USA, thus demonstrating the ability to cooperate with the Eastern neighbour on mutually beneficial terms.

While Lithuania has strongly decided to go nuclear, following its traditions, the other Baltic governments are stuck in the process of deciding whether to build a coal, gas or nuclear plant, as well. Estonia's announcement to build its own nuclear plant was echoed also in Latvia. At the same time the Latvian government is talking about building its energy self-sufficiency on coal fuelled power plants, following strong commitment of the previous government to opt for gas power station. Estonians have also expressed an interest to participate in Latvia-based coal power plant, thus "creating something more efficient in partnership" (The Baltic Times, 2008). These over-ambitious and uncoordinated plans, however, do not tackle the two main problems for the Baltic energy sector. One is energy sufficiency

that will be endangered already after end of this year when Ignalina nuclear plant is closed down. The second biggest risk that both of these alternatives involve is endangered energy security, caused by increased dependency from Russian energy imports. Following these reasons, neither of the discussed alternatives should be considered as option.

3.6 Energy Partnerships

The Baltic energy isolation has not only been a concern for their governments themselves, but also for the European Union as a whole. The energy link from Estonia to Finland, described earlier in this Paper, was the first connection to the energy market of the EU. Previously, the Baltics were only connected to the energy markets of Russia and Belarus that raised a great concern about region's energy security. On June 17, 2009 the prime ministers of eight EU countries surrounding the Baltic Sea signed an agreement to join their energy markets in order to reach independence from energy imports outside the EU (EurActiv, 2009). The Baltic Energy Market Interconnection Plan envisages series of projects, increasing the number of links between EU members thus making EU energy markets "more competitive and secure" (New Europe, 2009).

This newly formed partnership and commitment is especially important for the Baltic States, which share the biggest risk of energy isolation and dependency. The key partnerships from the Baltic point of view are outlined below:

3.6.1 Baltic- Swedish partnership

On April 27, 2009 prime ministers of the Baltic States decided to go further with the regional objective to create a common electricity market by the end of 2013, as stated in the Baltic Energy Strategy. They agreed on forming another partnership, this time with Sweden, on building a power interconnection under the Baltic Sea from Lithuania to Sweden. The Estonian Prime Minister Andrus Ansip announced that the "aim is to build up a single energy market not only in the Baltics, but to build up a common Baltic-Nordic energy market" (PEI, 2009). The project is co-financed by the European Union, allocating EUR 175 million for the purpose of ending the isolation of the Baltic energy market. The partner from the Swedish side, state- owned energy company "Svenska Kraftnat", has included the electricity bridge to the Baltics in its investment plan for 2010- 2012 and estimates it to come in operation not later than 2016 (Vaida, 2009). As Swedish produced energy volumes do not leave much room for export opportunities, Sweden is interested into buying energy from the Baltic States, thus securing its own energy security and diversifying sources of supply. The link to Lithuania also offers

opportunities for the Lithuanian nuclear power in the future if it is going to be built as planned. Some sources disclose that Swedish energy company "Vattenfall" has expressed interest on investing in the new Baltic nuclear plant (Adomaitis, 2007).

In July 2009 Sweden is taking over the EU presidency from Czech Republic. As number one priority it has declared the implementation of the Baltic Region Strategy, aimed at developing the region in terms of energy security and environment of the Baltic Sea (EurActiv, 2009).

3.6.2 Partnership with Finland

Following the successful completion of the Estlink project, connecting the Baltic and Nordic energy markets through underwater electricity cable from Estonia to Finland, the Baltic governments have decided to move ahead with the second phase of this project. Estlink-2 will provide another cable with 800 MW capacity serving as both- energy security warrant and export potential for the Baltic States. The cable is expected to come to operation by 2013 (PEI, 2009).

3.6.3 Partnership with Poland

With a target of widening the Baltic energy horizons it is planned to establish the partnership with Poland in the field of energy. Besides the existing common plans of the Baltic States and Poland to build a nuclear power plant in Lithuania, it is also decided to link the Baltic and Polish energy markets. This will be the first connection to the Central Europe, connecting Lithuania and Poland, with provided capacity of 1000 MW. The interconnection is expected to start operation in 2015. The project costing EUR 300 ml will be half- funded by the EU and is a part of the above mentioned Baltic Energy Market Interconnection Plan (PEI, 2009).

3.6.4 Partnership with Russia

The Baltic States and Russia have long history of energy relations. Although Russia as a partner has been categorised as unreliable, due to its assertive actions towards the countries of the ex-Soviet block, the Baltics keep receiving Russian oil and gas. However, the future of these energy relations is unclear and implies potential risks and threats. Also the European Union has discredited Russia as a partner and the new strategies show that it is trying to avoid Russian energy in the future. However, as the demand rises, Europe and the Baltic states will continue to need Russian energy, especially because it is still cheaper than the one from alternative sources. Therefore, the countries are trying to

build pragmatic business relations with the Eastern neighbour, and the Baltic states in this respect rely on European unity, which provides stronger negotiating position than if they would proceed with the bilateral approach. The EU is devoting much effort to forming an EU- Russia dialogue, taking into account the existing dependency of its member from Russian gas and oil. The relationship in energy sector is hindered by two major factors. One of them is European fragmentation and the other- Russia's unwillingness to comply with the principles of the EU- transparency, competition and openness.

On the other hand, it can be observed that probably due to the interdependence in the energy market Russia's approach to Europe has become somewhat softer. It can be a consequence of the current market situation when because of the price drop of oil and gas, Russia is also losing its energy confidence. Nevertheless, all three Baltic countries are actively working on diversifying their energy production portfolio in order to avoid the risky dependence on Russia in the future.

Key Findings

Several times in the past the Baltic States have experienced Russia's practice to use its energy sources as a political weapon; therefore in these countries energy issues involving Kremlin's presence have been highly securitised. Notwithstanding the difficult financial situation of today and vast investment required for the reorganisation of the energy sector in order to decrease Russian influence, there are several good opportunities for the Baltic energy markets, possible to be accomplished already today. The biggest potential lies within the use of RES, which also offers other benefits, like reduction of CO2 emissions. Another highly potential area in this respect is increased energy efficiency which as in other ex-Soviet block countries is very high due to the availability and low prices of energy in the past.

Despite common Energy Strategy, the Baltic States are divided as a region and do not share a common vision on their energy future. This makes the region even more fragile. Instead of several individual projects, ultimately increasing the dependency on Russian energy even further, the countries should proceed with the nuclear power plant to be located in Lithuania that has already received support from many interested parties internationally.

There is a good start for developed partnership with the other states of the EU, and this partnership should be strengthened and continued in order to reach even better interconnectivity with the European energy market.

Conclusion

The main objective of Russia's Energy Strategy is to keep Europe dependent on its oil and gas also in the future and strengthen this dependency even further. By fulfilling this condition, Russia will be able to receive not only maximum economic benefit from its natural resources, but also use its energy leverage for political gains.

Europe's need for energy will continue to grow, and so will the Europe's dependency on Russian oil and gas. Europe indeed is the key market for Russian energy; however, there is a great difference between the Western Europe and Central Eastern Europe. Russia realises this difference and also differentiates its policy towards each of them. Coercive energy policy is directed only towards CEE and CIS countries, however the major partnerships in the field of energy are planned and realised together with the main energy consumers in Western Europe. In the global context the markets of the Eastern part of Europe are small and insignificant. It is clear that Russia is not receiving major economic gains from them; therefore all the assertive actions directed at the former space of the Soviet Union can be translated as purely political. Thus Russia is trying to regain influence over the former Soviet block and to some extent influence the political decisions of the European Union.

The key problem for Europe in dealing with Russia is its disability to speak in one voice and follow a common Energy Strategy. Different Foreign Energy Policy objectives are not beneficial for the EU countries; in this case the Europeans do a favour to Russia which is happy to cooperate with fragmented weaker Europe rather than one strong organism. The European Union is responsible for energy security of all of its members, especially the ones in weaker political position.

If Russia continues to use its vast energy resources as a weapon of political and economical influence, the Baltic States remain in much worse situation than the rest of Europe, considering the differences in their Energy Policies, capabilities as well as serious level of dependence on Russian energy and complex foreign relations with the Kremlin.

The most serious dependence is in the natural gas sector, which will increase even more after the Baltics will lose their only nuclear power plant. Close cooperation, driven by a common goal of securing energy deliveries for the region and development of energy sector, is needed not only between governments but also the Baltic energy companies. Numerous activities in the field of energy

between the three states and the closest allies have proven that the political commitment is there; however, as it has been historically, a presence of competition between the Baltic States exist. This mirrors in numerous differing announcements of each state and their National Energy Companies on the future of the countries energy development and policy. Although a reasonable dose of competition is healthy for business development and beneficial for the consumer, energy companies cannot ignore the political aspect this area carries. Operation in such vulnerable and dependent market requires constructive cooperation and coherence minding the principles of openness, trust and transparency. Although the competition in the Baltic energy market is strong, in the future energy producers will not be competing between themselves, but the real competition will be among the sources of energy when more efficient, environment friendly and dependency decreasing sources of energy will conquer the market.

One of the most serious challenges of the Baltic energy market is insufficient funding. Currently, with the economic crisis deepening, it is less and less realistic that the energy sector will receive the required investment. For now, the existing networks and pipelines are of a sufficient quality, however in mid term they will require investment, as well. Lack of resources will stimulate the governments of the Baltic countries to look for investment in the energy sector, however the current regulatory framework is vague and non transparent.

After close investigation of Russian energy market, its capabilities and needs, it can be clearly seen that beyond aggressive Russian Energy Policy there is not a strong backing in terms of well-coordinated policy, organised and transparent internal market, energy industry with clear goals and available financial resources. Instead, Russia's energy infrastructure screams for investment, the market is highly politicised and non-transparent, there are many open questions and uncertainties about its future and above all there are negative influences of ongoing global economic crises.

Russia has built its Foreign Policy around its energy power. Currently the energy markets are facing serious difficulties and the prices for energy are not as high and remunerative as a few years ago. Russia has based its all economy on the energy industry, and also that is suffering considerably at the moment. The old gas and oil fields are depleting and there is no extra funding to invest in developing new ones. Therefore, Russia is not able to become a great energy-charged super power, but due to these weaknesses it can only influence the small dependent states by taking a hard line.

By using its energy weapon internationally, Russia is trying to present itself as a greatly influential power being able to affect or even destroy economies in one day. Although, cutting the gas supply to the former Soviet states thus demonstrating its "energy muscle", Russia ultimately affects its main

partners further down the pipeline- the biggest consumers of its energy- the Western European states. Such move raises doubts on what are the motives behind that as it is clear that the Russian energy resources are not eternal so as its energy leverage. Putting everything on one card clearly demonstrates Russia's weakness and affirms that the energy sources are the only powerful tool at Kremlin's disposal.

Europe as a whole has the paying capacity and there exist many alternatives. This is not a long-living political instrument that will strengthen Russia's political role on the international arena. Russia should instead boost its competitive advantages (pricing, existing infrastructure) to be able to cooperate with European energy consumers in longer future, not ruin the mutually benefiting partnership by using miserable methods.

Russia is unable to take out more money from the domestic market where prices on energy are extremely low and consumption ridiculously high, all the hope for gaining more revenue from its energy resources lies within the main export markets with Europe on the lead. In this sensitive situation Russia is unlikely to risk European partnership by taking a hard line on some of the members of the European Union. Notwithstanding this, the Baltic States need to move on with their strategy of diversification and concentrate further on establishing new partnerships with the states of the European Union and within limits do not further involve themselves in the projects increasing the Russian influence.

For Europe, on the other hand, Russia's oil and gas are most beneficial. Relying on supplies from the Middle East would comprise even more risks due to the political instability of these regions. Besides, there would be need for tremendous investment due to lack of fixed assets that the natural gas traffic requires. Russia has the competitive advantage concerning pricing and existing infrastructure.

Europe is the biggest market for the Russian oil and gas. Russian willingness to stay in this market is confirmed by the vast investment projects Russia is taking part in, as well as Gazprom's activities in acquiring downstream assets in the European countries. Thus Russia is ensuring its positions and presence on the European domain. The plans of Russian gas and oil giants to divert energy flow to the fast growing economies in the East (India and China) would not be beneficial for Russia as Europe is able to pay more for Russian natural resources. Besides, it would require establishing brand new pipeline system which none of the potential partners can afford at the situation of global economical downturn.

The Nord Stream project is a clear example how Russia is differentiating between the Eastern

Europe (or low income) and Western Europe (or high income), as well as it clearly shows the European fragmentation and disability to act in single unison. Although Nord Stream has received "blessing" from the European Union, it is not a project of common European interest. The core energy interests of many states, including the Baltics, are ignored. The Nord Stream also does not meet the main objectives of the European Energy Strategy as in fact it does not allow diversification of supplier- it is the same Russian gas, just reaching its consumers leaving out unwanted intermediates. The Baltic States and Poland have been the strongest opponents to this route. Unfortunately, no other country affected by the pipeline has showed support to them, as they would risk to negatively influencing relations with Germany and Russia.

The coercive economic diplomacy Russia has opted for in relations to its smaller neighbours is of course less condemnable than use of military power. However, by oppressing its aggressive methods and using this weapon in situation when the issues could be dealt with by high diplomacy, Russia is pulling the trigger and pushing the dependent states towards search of new energy sources and switching their consumption systems away from the imported sources. It may cause the situation that sooner than Russia run out of the natural energy sources, they become too replaceable, dangerous and expensive to use. It can be stated that Gazprom's gas in not such a long future will be competing with the alternative sources of energy and the Baltic States are flexible enough to transform quickly in order to decrease dependence from Kremlin's presence.

Acknowledgeable is the fact that the Baltic States have steered their energy policies towards increased production and consumption of renewable energy resources which already now constitutes a great proportion in the states' overall energy balance. This way the countries are also able to reach the global, regional and local targets of reducing CO2 emissions.

All three countries have rather high energy efficiency potential. Energy efficiency is the area for the Baltic's and also Europe where most can be done in order to ensure the overall energy security and this is the cheapest way to reduce energy dependence. Increased energy efficiency also gives benefit to environment. The oil and gas prices, as well as sufficiency of energy resources are beyond the European influence zone, however, each country and each consumer can contribute to the energy efficiency and in longer run- to their own economic advantage.

For the Baltic states Russia will remain the biggest gas and oil supplier and the countries will have to bear the potential risks the instable political relations imply. After analysing the situations in energy markets on the production and consumption side, as well as the trends in the industry and identifying the weaknesses, it can be concluded that Russia's chosen path of Foreign Energy policy is

highly questionable.

Due to the vulnerability of small European energy markets and Russia's actions in the past, the Baltic States should be worried about their energy and also national security. However, they can only protect their political and strategic interests if working close together with each other as a region, strongly integrated in the international community and acting together with their allies. Strong cooperation with the European Union is crucial in this respect as multilateral approach to big suppliers increases the bargaining positions of the weaker member states. By demonstrating solidarity and following common Energy Strategy the EU has a great potential to succeed in developing sustainable business partnership vis-à-vis Russia as the biggest energy supplier for Europe.

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