

LITHUANIA'S ENERGY SECURITY IN THE EUROPEAN UNION CONTEXT.

The search for alternatives in Central Asia



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Abstract

Energy issues became one of the most discussed and researched topics in last decades. Every country depending on its natural resources and geographical location faces different energy problems. It goes without saying that this domain falls under International Relations' field as energy resources inequalities among the states make them mutually dependent on each other.

Lithuania- one of the Baltic States, is experiencing many problems regarding energy. Its dependency on Russia's gas is the main problem. As part of EU Lithuania has advantages, but from its membership beginning the country had and still has problems in finding common vision with EU regarding energy security and accordingly implement energy projects. Both, EU generally and Lithuania needs to import oil and gas from Middle East, North Africa, Norway, Russia and Central Asia. From all these regions so far just Russia's gas and oil have reached Lithuania. Therefore Lithuania is in so called "Energy Island" and is in search for escape and mitigation of consequences it causes.

The aim of the paper is to disclose how much EU is influential in mentioned issue and if Lithuania could be one of countries to be benefiting from Caspian region imports? In order to find the answer the paper gives analysis of Lithuania's as small country's situation: internal problems, current projects and plans. EU internal matters expose existing discrepancies among member countries perception of energy security and lack of good comprehensive strategies for diversification of supplies. Last part is about Caspian region situation. What is more, oil and gas projects give a better insight of possibilities.

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Abbreviations

NPP- Nuclear Power Plant

CEE- Central and East Europe

LNG- Liquid Natural Gas Terminal

UGS- Underground Gas Storage

EU- European Union

UCTE- All other European Continental electricity network

ECT- Energy Charter Treaty

LT- Lithuania

PL-Poland

BTC- Baku-Tbilisi-Ceyhan pipeline

GUEU – White Stream Pipeline Company

IAEA-International Atomic Energy Agency

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1. INTRODUCTION

Energy became concurrent part of humans as well as states life. From the states part of view it is one of the columns that holds or threatens its sustainability. Further in many countries it powers economy. Unfortunately, so many developing countries are lacking electricity or people are constrained to access other energy means. So many countries due to the geographical location depend on suppliers. Goldthau writes: *Contemporary energy challenges are multifaceted. Rising consumption is accompanied by fundamental shift towards new Asian consumers; at the same time, energy systems need to transit towards a low carbon future. While demand growth in OECD countries seems to have plateaued on a high level, energy consumption in emerging economies such as China and India keeps on rising at unprecedented scales. Further, access to energy has been recognized a crucial precondition to satisfy the economic, social and environmental dimensions of human development. Particularly, investment emerges a pressing challenge. Finally, detrimental externalities stemming from the current unsustainable, fossil fuel based energy production and use are seriously threatening the globe's climate.*¹ This quote perfectly describes why, lately energy security issues keeps on receiving attention from politicians, scholars and researchers. Above mentioned challenges shifts this field into one of the most discusses issues nation and global wide. What is more, sources of energy became a reason for war and a great political tool.

The interest of research and politics of energy, changes during the years, especially when new challenges and forms are emerging. As Molis puts: *Changes in energy production, transmission or consumption therein thus impact on multiple components along value chains, on infrastructure or even on welfare-across countries, societies and jurisdiction. At the same time, however, the capacity of traditionally regulating entities that is states, to intervene, enforce or control is eroding. Further, access to energy has been recognized a crucial precondition to satisfy the economic, social and environmental dimensions of human development. Yet, today the number that has tended to grow rather decline in recent years.*² There are many angles, perspectives and aspects of energy issues that could be researched. EU Russia energy relations

¹ Andreas Goldthau. *Governing global energy: existing approaches and discourses*. 2011. p.213- 214.

² Ibid., p.214

are very popular topic, as well as the energy security interests of the Baltic States in general. However when all the attention goes to global wide or regional energy issues this paper first of all will showcase issues of small countries who belongs to certain unites, in this case EU. So far only few papers touched and tried to unite these aspects and provide a deeper analysis of Lithuania's approach towards the most important aspect of the internal dimension of the common EU energy policy and external cooperation outside it's borders.

Lithuania is in so called "Energy Island" as it faces many challenges to its energy security. One of the conditions to be part of EU, Lithuania had to close down. Ignalina's Nuclear Power Plant in 2009 and since then it has to import energy and its dependence increased. EU in the beginning promised to support Lithuania and was seen as escape from the problems, but current realities demonstrate that everything turned in other way. In addition Lithuania depends on Russia's energy supplies, especially natural gas and it is economic and political problem. Already having these facts, including other internal and external nuances, energy problem became a question of survival not only politically but in everyday life, as country's dependency and increasing prices becomes unbearable to people. For that reason Lithuanians needs to pursue diversification and autonomy. Despite import dependencies Lithuania has an oil refinery in Mazeikiai, import/export terminals for oil and oil products in Butinge and Klaipeda, as well as a gas transit pipeline through Lithuania to Kaliningrad. These facilities help to lessen at least some of the import dependency related risks. Recently the Government presented National Energy Strategy, which defines energy policy trends and tries to tackle monopoly problem. The aim of the strategy is to ensure Lithuania's energy independence until the year 2020. Five energy projects dominate in independence. First one is Lithuanian-Polish power bridge *LitPol Link*, then Lithuanian-Swedish electrical power connection *NordBalt*, construction of Visaginas NPP, implementation of the Third Energy Package and construction of LNG. If these projects will be implemented Lithuania would be more liberal in its energy sector and would be connected with European power grids. Despite promising projects the question remains if it is enough to count just on these projects? For this reason (doubt) the author will investigate current events and the latest tendencies of so called Lithuania's energy situation and future possibilities. It can't be solely analysed without parties such as EU due to great policy divergences and common foreign interests and new alternative- Central Asia states.

To investigate quite new multifaceted paradigm of relations between the three parties the paper is organized as follows. The first section analyses the dependency of the Lithuania on Russian gas and other import problems. The second section investigates the EU's internal issues on Energy politics and Lithuania's role in it. The third one reveals Central Asia's countries energy situation and the last part will go deeper of the alternative energy supply infrastructure development projects, which could mitigate the negative consequences of above mentioned dependence.

2. METHODOLOGY

This chapter will familiarize a reader with the paper question, other possible approaches, limitations and presentation of the theories.

2.1 Problem formulation

This part will provide a clear indication of where the primary focus of this project is centered and what led to the raised question.

Energy in a broader sense is a set of interconnected issues: the actual energy challenges and their possible solutions as well as consequences are characterized by a huge complexity and urgency. To begin with, the main remaining reserves located in not so many countries which are scattered from Middle East to Central Asia and North West Siberia. *The vast majority of global hydrocarbon deposits are concentrated in this so called “strategic ellipses” About 70 percent of global oil reserves, while the former Soviet Union Contributes another 10 per cent. The wider region of the strategic ellipses also hosts 70 percent of world gas reserves. Here Russia occupies the first place with 23 per cent of world gas reserves. The rest of the former Soviet Union holds an additional 7 per cent, while the Middle East contains a share of up to 41 percent (BP 2009)*³. Bearing in mind these facts it becomes obvious, why energy security is so important.

Energy and various issues that it causes could be analyzed from different angles and depending on the interest of each researcher. Baltic States energy security draws attention of many scholars due to its problematic situation. However this paper will be narrowed down to perspective of a single state. The problem formulation is interesting in authors eyes, due to the energy's importance to Lithuania's life, because decision and steps that needs to be made, will determine the future of the state. Therefore the paper will question Lithuania's energy security within the context of EU influence and search for alternatives. The paper will not exclude short analysis of Lithuania's-Russian relations due to historical ties and the current situation, because Russia's politicized nature have caused many divisions among actors when it comes to EU energy policies.

³ Dries Lesage, Thijs Van de Graaf, Kirsten Westphal . *Global Energy Governance in a multipolar world*. 2010. p.20

As it will be discussed in further chapters the notion of energy security covers many fields, therefore J.Mitchell with K. Monita, N. Selly and Jonathan Stern brings readers notice: *The first key to a new framework for energy within a general security policy is to distinguish economic from political risks.*⁴ Clearly, for resource-rich and resource-poor countries alike, energy is not just a pure commercial commodity. It is a strategic good over which sovereign states want to hold a firm grip.⁵ Consequently it is a must to investigate either the problem is more economical or political or it goes along.

It was hard to choose the angle from which Lithuania's energy issue could be analyzed. That is why the paper question will be twofold. Putting all the facts together the question of this paper will be as follows:

How is EU influencing Lithuania's possibilities to find new energy alternatives in Central Asia? This problem leads to other subquestion: if states such as Lithuania can independently develop and influence energy politics when they are part of the EU? Hereby, it is my aim to conclude on possible ways and exits from so called Energy Island.

2.2 Scope and limitations

The scope of this project, meaning the object of the study and the elements of the process included can be defined in different ways in order to answer the problem formulation. As the aim is to investigate Lithuania's possibilities the author needs a careful selection of scope to avoid ignoring important aspects of the problem formulation and at the same time trying to ensure that the focus point remains. The problems concerning Lithuania's energy include many aspects and that complicates the investigation. The scope of this study is quite broad as it will analyze internal as well as external factors. By internal factors I mean Lithuania's internal situation including not only government's decisions, but society's attitude and opinions towards energy situation. External factors in general are the interests of the external actors: EU and Asia countries. To be precise it will be also shown if there is initiative from other parties towards cooperation.

⁴ J.Mitchell with K. Monita, N. Selly and Jonathan Stern. *The new economy of oil. Impacts on business, geopolitics and society.* 2001. p. 198

⁵ Ibid, p. 41

As every paper this one as well faces some limitations that can't be avoided due to time, data or research focus. While analyzing this issue it would be in use to analyze technical part of the alternatives, as it would broaden or decreased investigated opportunities. However as Lithuanian researcher A. Molis states first of all the main obstacle for this paper and all Government planed strategies is that there is no developed methodology for technical and political strategies. It is probably polemic to which the priority should be given. It must be confess that it was chosen the easiest way: to investigate more theoretical way, but the lack of knowledge in technical field and time frame, forced me to choose this focus. It would be deeper and more interesting analysis to develop technological methodology along with energy geopolitics.

Another limitation is that not a whole energy package (meaning all kinds of energy) will be investigated. The focus will be on gas, oil and electricity sectors, excluding water-power plant, wood, shale gas⁶ and etc. The choice depended on the dependency on external actors.

One more obstacle emerged while looking for materials: not so many documents and statements from Central Asian countries. The main obstacle was the language.

Renewable energy question is also not discussed in this paper. It could be one of the options looking for cooperation and replacement of existing ones. Two aspects made the author to omit this part. First is, that despite the plan to use 90 % of renewables by 2050, unfortunately we need to satisfy our energy needs with old ones, until we will get to use renewables. (It would take time to plan and implement these projects, since most of them haven't started yet). In author's opinion, after this analysis, the gaps with renewable energy cooperation could be the second step of research and planning towards escape from Energy Island.

2.3 Research methods

It is fundamental to develop methodology in any research paper, which helps in unveiling the theme. Each field of science has their own research methods. Each scholar of the social sciences, depending on the chosen problem, tries to find his/her own way to answer the question and

⁶ Poland possesses shale gas deposits, which is a vision which is a vision of the future of Poland's state controlled strategic industries, with export possibilities.

combine different research methods For the purpose of this paper, a methodology was developed, that reveals and exposes the chosen topic in the best possible way.

This chapter will discuss two different methods one can rely on when investigating the problem. It will also discuss which type of sources the author will rely on and thoughts or concerns regarding these.

The project's focus is analysis, with questions and synthesis of information within the field of interest. The paper also tries to establish interconnections between different domains of political science, acknowledging the connections with the main subject of interest: Lithuania's energy security.

In order to give an understanding for the readers, in every paper the object of the investigation should be introduced. In the proper sense, the object of investigation is Lithuania's energy security, but it should be stressed, that the chosen issue of analysis extends to EU and even Centra Asia countries as their cooperation will determine the future of Lithuania's energy sector. In conceiving this project, qualitative methods will be used. This method is the best way of getting an overview on this issue (three perspectives EU, Lithuania and Central Asia countries and even Russia). Since all these perspectives can't be analysed in this paper, the main focus is being targeted on Lithuania's perspective.

Analysis basis on facts about Lithuania's energy state, EU internal matters and Caspian region situation and different materials (which include specialized literature, articles, etc). The paper question itself indicates that the method will be descriptive and explanatory. The project's emphasis will be on secondary sources, but also diversifying it with primary data. Primary sources, includes official documents i.e official publications from EU and Lithuania strategies, which gives for any research not unsorted information The application of secondary sources can sometimes be considered not as reliable when comparing them to primary sources.

This project investigates a current problem and that is subject to changes as all energy issues are tend to change. As a result it was used an updated source of information to support the shortage of recent books in the area and this led to secondary sources like mass media, and newspapers as relevant sources.

While conducting the research it was acknowledged that there is a big amount of materials, that can be used for conceiving the project. There were tried to select the most recent, suitable and unilateral ones, in order to get the broadest overall view of the situation. For the analytical part

there were used recent and current articles, since 2006, when Lithuania presented its Energy plan and was approaching in closing the last plant of its Nuclear plant and when EU released its Central Asia Strategy.

Bearing in mind the time limitation for this project, a short-term study was carried out. These studies recorded some situation at the time frame of recent years, not getting into historical details, because the aim is not to explain historical perspective, but to unveil the problematique of the current situation, in order to foresee the future

There are two methods of reasoning when the research is conducted: deductive and inductive. Bearing in mind the chosen trend to this issue, basically deductive method can be applied. It was tried to study data, was learned about the existing patterns and was introduced an assumption, that one of the options for Lithuania is to search cooperation with central Asia. In order to prove this, one of the ways in explaining behaviours of three parties was to use theory. The following chapters will present theoretical part.

2.4 Theoretical part

Theories are set of thoughts that enable us to understand and explain existing phenomenas and issues in the society, environment, politics, economy and etc. They explain how and why specific facts are related with each other and what are the reasons, that lead to the specific problem and solutions International relations is quite complicated field (and energy more than ever is part of it), which often overlap with other disciplines, like sociology, politics etc. and that is why theories ease researches. It should be noted, that theories can be applied, depending on which angle of the existing issue you will take. This study also includes theoretical part, therefore scientific, perspective from which is to be approached the theme of this project. The theoretical part of the project presents brief overview of few different theories, which will be the base of the analytical part. The choice of theories stems from few reasons. The concepts of game theory provide a language to formulate structure, analyze, and understand strategic scenarios. Though game theory is more used in economics as far as the authors knows, no one tried to use it in analyzing energy issues, especially investigating alternatives. In authors eyes it seemed it will give answer either all three parties tend to cooperate and how Lithuania should act. The small states theory perfectly not only presents Lithuania's stance, but also gives hints of its future behavior.

The authors is familiar that it could have been used other theories normally used in energy analysis such as International Political Economy, Regionalisms, Realist ideas, but it was decided to test new ones which helped to disclose new aspects of investigation.

It must be emphasized, that represented extracts from the theories was chosen according to relevance of the topic as there is no one theory that could cover all energy contexts. Scholar elaborates much more on different ideas, unfortunately paper limit and issue itself forced to be selective.

2.4.1. Energy security

Before proceeding to theoretical and analytical parts it is a must to present and clear out some concept/notion that will be used in this paper. As this research centers at energy security, the author would like briefly to look at this term: how it is perceived among researcher, politicians and how it will be used in relation to the chosen topic.

To understand this concept it is important not only had to better analyze raised question, but generally” *the concept needs to be defined in a broader sense in order to prepare appropriate decisions and to theoretically and methodologically substantiate the problem solving methods concerning energy security.*⁷

Andrew Monaghan and Lucia Montanaro-Jankovski (quoted in Dmitrios Triantaphyllou and Yannis Tsantoulis) perfectly labels: “*energy security, in terms of supply and stability of price, intertwined in the post- Cold War era- and especially since early 2000- with geopolitics and international Relations*”.⁸ As one can see from the quote and from all academic research papers as well as media, energy question is inseparable part of International Relations. Therefore this paper pays attention to the energy security dimension and how it shapes in many ways the relations between Lithuania, EU, Central Asia and partly Russia.

There is a slight shift from access to energy resources into broader context understanding it as Human security as it became a matter of survival in so many countries. *Even if energy security is best understood in terms of international politics and global markets-any significant failure in*

⁷ Matthew Ocheltree, *The Evolving concept of energy security*. 2011. p.2

⁸ Dmitrios Triantaphyllou and Yannis Tsantoulis. *Issues in EU and US Foreign policy*. 2001. p.1

*this realm of policy will directly touch the lives of ordinary people in ways that few governments are going to be able to ignore for long.*⁹

As IAE defines: *Energy Security can be described as "the uninterrupted physical availability at a price which is affordable, while respecting environment concerns".* IAE also distinguishes long term and short term energy security: *long-term energy security is mainly linked to timely investments to supply energy in line with economic developments and environmental needs. On the other hand, short-term energy security is the ability of the energy system to react promptly to sudden changes in supply and demand.*¹⁰ This paper focuses on long term energy security, though Lithuania would need to secure its short term energy as well.

Energy security, as it was mentioned earlier basically always steps out the borders of the country. Probably, there is no country that could survive from its own resources or in other words would be self-sufficiency in energy. *A further level of security concerns a country's freedom to practice an independent foreign policy, or at least to avoid having other countries impose constraints on its foreign policy by threats to deny it energy supplies or markets, or to make access to them damagingly expensive (or unprofitable)*¹¹.

*Self-sufficiency in energy is a reasonable goal only if a country expects to be permanently at odds with the world and expects to face widely applied sanctions as a result. This situation could arise for an energy-exporting country as well as for an importing country. Elimination of energy trade is for most countries a prohibitively expensive option*¹²

As perhaps the shift from geopolitics of resources to human security and energy management of the energy security or extended its definition is clear, there is a misconception/misunderstanding or equation of energy independence and energy security. One of the ways to secure the independence is to reduce imports. Few authors (P200 J.Mitchell with K. Monita, N. Selly and Jonathan Stern) points out there are always few risks:

⁹ Daniel Moran .*Handbook of oil Politics*. 2012.p.109

¹⁰ IAE- http://www.iea.org/subjectqueries/keyresult.asp?KEYWORD_ID=4103

¹¹ J.Mitchell with K. Monita, N. Selly and Jonathan Stern. *The new economy of oil. Impacts on business, geopolitics and society*.2001. p.200

¹² Ibid., p.201

- *In general, policies to reduce import dependence have to work within limits of affordability and acceptability which mean that they do not eliminate or even seriously reduce the risks attached to imports. Do changes of 5% or 10% alter a country's exposure to diplomatic and political pressures if the starting level is 50% or more?*
- *Finally, focusing on the level of imports in individual countries distracts attention from the global policies which can enhance energy security and national security for all countries by cross- border investment to increase global energy supplies and markets where it is cheapest to do so.*¹³

It is always confuses energy security and national energy independence, which means country needs to meet its energy needs with its own resources. *Energy independence is neither feasible for most countries nor particular desirable as a goal in itself. Dependence on a world market that functions well is beneficial, not harmful-this is as true for energy as for all other globally traded goods and services, for which specialization and trade demonstrably lowers costs and increases economic efficiency for all.*¹⁴

Lately energy security is gaining new aspects such a nuclear programs i.e. controversial Iran's program. As Goldthau and White have observed, commentators from all over the world seem to be talking about nothing else but the oil and gas "weapon" a "race" for resources, the "locking up" of reserves and the need to achieve "energy independency. The fact that these atavists words, which stem from the era of political-driven oil shocks, are re-entering the popular debate, points at the growing anxiety the energy issue is capable of generating. Judging by this dominant discourse, it appears as though international energy relations are no longer solely governed by market incentives but are increasingly subject to protectionist, neo-mercantile and geopolitical considerations.¹⁵

Basically all countries belong to one energy resources market which is dependent from each other. According to Matthew Ocheltree the real energy security is ensuring the stability of this market but not the search of energy independence. The market is always mutual as suppliers are

¹³ J.Mitchell with K. Monita, N. Selly and Jonathan Stern. *The new economy of oil. Impacts on business, geopolitics and society.*2001.

¹⁴ Ann Florini,. *Global Governance and Energy.* 2008. p.4

¹⁵ Dries Lesage, Thijs Van de Graaf, Kirsten Westphal " *Global Energy Governance in a Multipolar world*" Edited by Andrew F. Cooper and John J. Kirton, 2010. P.26

also dependent on receivers. *What has become clear in recent years as both importing and exporting countries have grown more sophisticated in their energy policies is that the new reality of the global energy landscape is one of interdependence far more than independence. But a more accurate way to think about the problem is to see that each nation's energy security is an integral part of every other nation's security.*¹⁶ Matthew Ocheltree writes that there are few ways to secure energy: resilience, diversity of supply, and global interdependence. The broader understanding of energy security is flexibility and resistance, meaning the stock that would let the state to survive in case of emergency or other troubles or even blockade. This could be achieved using different means like increased production, or secured storage and so on.

What is more there could be distinguished few levels of energy security: *At the micro level (energy suppliers, industrial and residential consumers), the concept of energy security is usually interpreted as the security of the supply systems. At the macro level, energy security is related to the existence of conditions necessary for the satisfaction of objective social needs (for example, access to energy sources, such as natural gas, oil, etc.). If we extend our macro level approach to a global level, we can safely say that the concept of global security can be defined as a dynamic equilibrium of the proportionate and disproportionate (in other words, satisfied and unsatisfied) needs of humanity.*¹⁷

Matthew Ocheltree believes that macro level research is not reached which is why the issue of energy security is basically regarded as the secure functioning of the supply systems. So to sum up using Florian Baumann words: *four different but at the same time overlapping dimensions can be identified:*

- 1. Internal policy dimension*
- 2. Economic dimension*
- 3. Geopolitical dimension*
- 4. Security policy dimension*¹⁸

The final point I would like to bring is that energy security perception varies from country to country. As it will be shown later on in analysis, energy security means one thing for Russia,

¹⁶ Matthew Ocheltree, Energy Issue Brief, Carnegie Endowment for International Peace, THE EVOLVING CONCEPT OF ENERGY SECURITY, p.2

¹⁷ Ibid., p.4

¹⁸ Florian Baumann. Energy Security as multidimensional concept. Research group on European Affairs. Nr. 1. 2008, p.4-5

then for i.e EU. Lithuania's Energy security in this paper is understood as diversification of supplies. It will not be touched global level of energy security, as it would shift away from the focus. *Governments must also recognize the important role energy efficiency plays in these negotiations as a bargaining chip for importers. If the European Union has no avenue for decreasing its use of Russian oil, for example, then Russia has all of the negotiating strength.*¹⁹

2.4.2 Small states

Probably no one would argue or contradict if I would consider Lithuania as a small state. In order to better understand the stand, and the opportunities of Lithuania's energy future, first of all, it should be looked through small state perspective. This chapter aims to introduce the concept of small states, which will later ease analysis part in finding a question of energy autonomy achievement by a small state under varying circumstances.

The concept of small state is not new. The studies emerged in nineteenth century and reached its heydays in 1970. During all this period the concept gained new aspects. Despite quite abundant research papers there is no one consistent theory or as Iver B. Neuman, S. Gsthöl said there were no continues flow of research. Regardless of this fact, this chapter will introduce the main ideas of the theory.

I would like to start with a short definition: *Being a small state is tied to a specific spatio-temporal context, not a general characteristic of the state. A small state is not defined by indicators such as its absolute size or size of GDP relative to other states. Instead, a small state is defined by being the weak part in an asymmetric relationship.*²⁰ Theorists Iver B. Neuman, Sieglinde Gsthöl, highlights that small state doesn't mean weak states. As we will see later, this is more realistic as it sometimes small states have advantages too.

As it will be mentioned not once in this paper, when it comes to politics, especially energy challenges big or even more small states, require arrangements 'beyond the state'. Meaning that certain things will be determined by others or small states politics needs to pact with external powers. Small states basically always were analyzed in perspective to great powers, where the

¹⁹ Matthew Ocheltree, *The Evolving concept of energy security*. 2011. p.2

²⁰ Rainer Kattel, Tarmo Kalvet, Tiina Randma-Liiv. *Small states in Europe*, 2010.p. 66

disparity of the power is observable. *In other words, the characteristics trait defining small-state security as a part of security studies is a state's significant inequality of power relative to major neighboring states.*²¹

Rainer Kattel, Tarmo Kalvet, Tiina Randma-Liiv draws attention to small states administration. They argue that administration capacity determines states capabilities and role in the international relations: *By creating private monopolies instead of public monopolies, especially in microstates, market driven reforms (privatization, contracting out public services) have had questionable outcome due to the limitations of small markets (i.e. lack of competition). Public private partnerships have been difficult to develop because of the personalism and interrelatedness within small societies, which, in turn, may easily give way to problems with control and accountability, corruption, and nepotism.*²²

*At the time when small states are increasingly challenged to step up their policy-making efforts on the international level, a wave of administrative reforms or reform tendencies may easily undermine these very efforts.*²³ As we see bureaucracy is one of the limits, that small states faces and that holds them back. *A fundamental issue in small public administration appears to be modification of a Weberian bureaucratic model in which large scale size is a critical variable. If small states operate with bureaucratic models inherited from larger states and comprehension of desirable adjustments remain limited, small states may face severe problems in matching bureaucratic rules with their predominantly particularistic societies.*²⁴

Despite the size, each country has its strategies. In many important respects small states resemble great powers. For instance, the leaders of small states arrive at their decisions in ways very similar to those of the decision-makers of great powers. In fact, a whole branch of research focused on the question of which policies might help prevent or reduce the consequences of smallness and scarcity: *either through a selective foreign policy that saves resources but increases one's prestige (i.e. membership in international organizations); or through*

²¹ Olav F. Knudsen, 1996, *Small states and the security challenges in the new Europe*.1996. p. 5

²² Ibid, p. 76

²³ Rainer Kattel, Tarmo Kalvet, Tiina Randma-Liiv, *Small states in Europe*, 2010.p. 66

²⁴ Ibid.,p 77

*specialization in certain products and a diversification of trading partners; and strategies to avoid foreign determination (i.e. neutrality, integration).*²⁵

*In particular, small states are proactive in those sectors of greatest importance to them, while being reactive in other sectors because they do not possess sufficient resources to follow all negotiations.*²⁶ Meaning they don't have enough experience, knowledge or resources count against bigger powers.

Erwin A. Schmidl talks about small states role in security and peace operations. *On the one hand, because of their structure – “small is beautiful” – they are sometimes better organised, and benefit from the “everybody knows everybody”-syndrome. Heinz Gaertner*²⁷ That is to say that smallness is interesting from a security perspective only under certain circumstances, when being relatively small takes on a predominant significance for the solution of a decisional problem.

It goes without saying that small countries has more constrains accessing resources: *It follows that, to small states, whose smallness is seen exactly as a result of them having access to limited material resources, this language is likely to be more important than it is to greater powers*²⁸

As one of the aims of this paper is to clarify how much influenced are Lithuania's politics and v.s EU, few more lines needs to be presented as well. *The European Union has become one of the most important factors for small states within the union (Thorallson and Wivel 2006). The influence of the union on small states and their economic development and innovation differs quite strongly according to their levels of development.*²⁹ As example could be given Lithuania v.s Moldova, in this case Lithuania would have more advantage in negotiations as Moldova.

Authors state that being or not in the union, even you are small state, it needs or can't avoid collaboration. *New global challenges and risks for small states necessitate regional collaboration in policy making for innovation. While to this day we cannot detect any serious initiatives here, it is clear that because of the policy- making mechanisms in the EU, small states*

²⁵ Iver B. Neuman, Sieglinde Gsthol, *Small states in International Relations*, 2006, p.10

²⁶ Peter Katzenstein quated in Iver B. Neuman, Sieglinde Gsthol, *Small states in International Relations*, 2006, p.26

²⁷ Erich Reiter, Heinz Gartner. *Small States and Alliances*. 2011

²⁸ Annete Baker Fox quated in Iver B. Neuman, Sieglinde Gsthol, *Small states in International Relations*, 2006,p.20

²⁹ Rainer Kattel, Tarmo Kalvet, Tiina Randma-Liiv, *Small states in Europe*, 2010.p 77

*are bound to work more closely together (Thorallson and Wivel 2006).The EU may push small states towards more collaboration in various policy areas, including innovation policy.*³⁰

One more point is self-perception. As small state leaders consider that they can never, acting alone or in a small group, make a significant impact on the system. *This characterization draws our attention to the importance of (self) perceptions and to the fact that small states and middle powers might support international institutions such as alliances in order to promote international attitudes and norms favorable to their survival.* ³¹ Contrary Michael Mosser attempts to show that the importance of small states to international organizations and to international relations more generally has been understated and misunderstood. *The focus on power rather than influence, and on states on their own in the international states system rather than within international organizations, has led the field to dismiss out of hand the possibility that small states can act strategically to preserve their security while at the same time contributing to the stability and efficacy of international organizations.*³² Mosser tries to prove that despite size, small states can influence the organization but not without utilizing the built-in rules and decision-making procedures undergirded by strong norms favoring equality and negotiation over confrontation.

Olav F. Knudsen reasons what the small state itself can do to assure its security. He assumes that the small state has a last saying regarding its fate, because the state owns action that determines its future. According to him: *long-term survival depends on the quality of small-state diplomacy, on finding the right policy, the wisest course, the “smartest” approach.* In the same book he gives contraposition (Quotes Mathisen): *small-state action can have any significant long-run impact on the small state’s survival. In this conception the security of small states is determined by external factors, whether those are conceptualized as large-scale processes such as integration, or the specific policies of other, and more powerful states.* According to this view, the policies of the powerful ones at the end of the day determine the fate of small states. *If the*

³⁰ Rainer Kattel, Tarmo Kalvet, Tiina Randma-Liiv, *Small states in Europe*, 2010.p 78

³¹ Annete Baker Fox quated in Iver B. Neuman, Sieglinde Gsthöl, *Small states in International Relations*, 2006, p.24

³² Michael Mosser. *Small States and Alliances*, 2001.p.71

*latter survive, it is only because-and as long as-they serve some function in the schemes of the great powers (Mathieson,).*³³

As one can see, there is no consensus how much power small states has to its own fate. *Practical thinking in small states, however, often amounts to taking one view and disregarding the other. Realistic policy-making requires governments and political elites of small states to recognize the importance of geopolitical factors for small-state security.*³⁴ It is very important in energy issue, in terms of transportation.

In order to better prophesied the chances of the small states Olav F. Knudsen presents six key variables which more than others seem to influence the prospects for preserving the autonomy of the smaller state. These variables are:

1. *The strategic significance of the small state's geographical location as viewed from one or another of the leading great powers;*
2. *The degree of tension between the leading great powers;*
3. *The phase of the power cycle in which the nearest leading great power finds itself;*
4. *The historical record of relations between the small state and the nearest great power;*
5. *The policy towards the small state of other, rivaling great power(s).*³⁵

The focus of the paper itself allows omitting describing all of them and staying on focus to the most relevant ones. Geographical location and strategic significance. *From this perspective, the security issue linking the two neighbors becomes a question of how the territory of the small state can be used-exploited- by another great power in the execution of sinister designs. Thus small states often find themselves at the mercy of what may appear to be the paranoia of great power neighbors.*³⁶ The idea of Phase of the power cycle is that all great powers go through cycles, which obviously affects small states. The impact depends on historical ties between these objects. It is assumed that small states are in periphery of great powers, and it means that there is power limit. The trade-off is happening because of control that great power “provides”. Theorist state that deal can't be changed all the time. Hence, there is a certain resilience of the bargain for

³³Mathisen quoted in Olav F. Knudsen. *Small states and the security challenges in the new Europe*. 1996. p. 8

³⁴ Olav F. Knudsen. *Small states and the security challenges in the new Europe* 1996,p. 8

³⁵ Ibid., p.9

³⁶ Olav F. Knudsen. *Small states and the security challenges in the new Europe*. 1996. p.10.

small-state, which it can use for certain time, but after some time this bargain needs to be remade. Another very important point is Historical experience, which in most cases decides the trust between two parties. What is more: *the small state is not doomed to passive acceptance of the enviroing inputs; it may under certain circumstances be able to influence the operative environment to improve its position. However, great power tension is required to make the small state's strategic position relevant to a political situation.*³⁷ In other words small states should try to take advantage of certain political/economic situation.

2.4.3 Game theory

The first ideas of this theory appeared at the end of nineteenth century. The idea of general theory of games was introduced by John von Neumann and Oskar Morgenstern, later it was developed and complemented by other theorists one of them was Nash, who proposed Nash Equilibrium.

From its emergence till now the theory is widely used as analytical tool in many fields of research from sociology, to economics as well as politics and international relations. Probably this theory is mostly used by economists. Certainly, there are papers by and for political scientists. It is hard to find one consistent paper, fortunately Drew Fudenberg and Jean Tirole "Game theory" provides deep coverage of some more difficult and subtle concepts of political game theory.

Before starting the description needs to be stressed that the "real" theory is very mathematical and full of formulas and calculations. The author decided to "miss" this calculation part as it would be more suitable for writing real strategies, and constructed conclusions more on behavioristic part of the theory, which is more suitable to chosen approach (theoretical). This indeed very brief presentation is just part of the broad game theory concept.

The theory based on idea on actors and actions. Using theory one can generate predictions. Though game theory has many aspects basically all scholars agree that theory has at its core a fairly simple structure, consisting of three blocks. *An understanding of the process of choice making, based on the expected utility model of decision making. Second, game theory is seen as generating predictions by linking the analysis of choice making to the concept of equilibrium.*

³⁷ Olav F. Knudsen. *Small states and the security challenges in the new Europe*. 1996 p. 17

*Third, game theory is seen as treating the rules of the game—a phrase used to encompass the set of players in a game, the strategies or choices they confront, the way in which these choices are sequenced, the preferences of actors, and the information actors possess when they make their choices—as exogenous factors that are taken as given and assumed to remain constant.*³⁸

Game theory is a study of conflict and cooperation meaning that it is applicable whenever agent's actions are interdependent. The concepts of game theory provide a language to formulate structure, analyze, and understand strategic scenarios. All predictions have mathematical foundations, which helps to model and design decision making and strategic choice in certain interactive environment and situation.

According the theory, the situation involves at least few players. The outcome depends on player's preferences, information they possess and actions available to them. A coalitional (or cooperative) game describes what pays off the players, and what can be attained cooperating with others. Just the theory doesn't explain how these groups/coalitions forms. Nash adds that bargaining outcome basically depends on relative strength of the party's position. *His model fits within the cooperative framework focuses solely on the outcome of the bargaining process. Cooperation can, and often does, arise in no cooperative models of games, when players find it in their own best interests.*³⁹

Some theory branches diverge in their assumptions, but everyone agree that all players are rational. To be rational in this context would mean to choose an action which would give the most preferable outcome, given what he expects his opponents to do. On this purpose player's strategies are listed as well as the possible outcomes from each possible combination of choices. Another form is game tree, will be explained later on. But it could be said that is more detailed as strategic one as it includes time calculation (the time at which any uncertainty in the situation is resolved). It is possible that players will have two strategies that in case of any combination of strategies of the other players, the outcome from one cooperation would be better than other. *A rational player will never choose to play a dominated strategy. In some games, examination of*

³⁸ Geraldo L. Munck. *Game Theory and comparative politics. New Perspectives and Old Concerns*. 2001.p.178

³⁹ Theodore L. Turocy, Bernhard von Stengel, *Game theory*, 2001, p.6

*which strategies are dominated results in the conclusion that rational players could only ever choose one of their strategies.*⁴⁰

Here I would like to bring in earlier mentioned Nash equilibrium. Which recommends a strategy to each player that the player cannot improve upon unilaterally, that is, given that the other players follow the recommendation. Since the other players are also rational, it is reasonable for each player to expect his opponents to follow the recommendation as well. *Nash Equilibrium will occur then no player has an incentive to play differently. Only Nash equilibrium can have the property that the players can predict it. Predict that their opponents predict it and so on. In contrast, a prediction that any fixed non- Nash profile will occur implies that at least one player will make a mistake either in his prediction of opponents play or (given that prediction) in his optimization of his payoff*⁴¹ It might happen that players will have more than one equilibrium. But then according to the theorists a theory of strategic interaction should guide players towards the “most reasonable” equilibrium upon which they should focus. On the other hand having “two equilibriums” sometimes makes the players stuck at an inferior outcome.

Normally the players choose their strategies simultaneously, without knowing the choices of the other players. But then again, the players over time can learn about the actions of others. *In an extensive game with perfect information, every player is at any point aware of the previous choices of all other players. Furthermore, only one player moves at a time, so that there are no simultaneous moves.*⁴²

Let's go back to the essence of earlier talked game tree, which represents a player, who moves by choosing other point/step. The connecting lines are labeled with the player's choices. The game starts at the roots of the tree and ends at the top, which in this case means the outcome and determines the players' payoffs. A long but informative example will disclose the idea: *The service provider, player I, makes the first move, choosing High or Low quality of service. Then the customer, player II, is informed about that choice. Player II can then decide separately between buy and don't buy in each case. The players now move in sequence rather than simultaneously. This technique solves the game by first considering the last possible choices in*

⁴⁰ Theodore L. Turocy, Bernhard von Stengel, *Game theory*,. 2001.p.8

⁴¹ Drew Fudenberg and Jean Tirole “*Game theory*”, 2000, P.13

⁴² Theodore L. Turocy, Bernhard von Stengel, *Game theory*, 2001, p. 22

*the game. Here, player II moves last. Since she knows the play will end after her move, she can safely select the action which is best for her. If player I has chosen to provide high quality service, then the customer prefers to buy, since her resulting payoff of 2 is larger than 1 when not buying. If the provider has chosen Low, then the customer prefers not to purchase. Once the last moves have been decided, backward induction proceeds to the players making the next-to-last moves (and then continues in this manner). Player I makes the next-to-last move, which in this case is the first move in the game. Being rational, he anticipates the subsequent choices by the customer. He therefore realizes that his decision between High and Low is effectively between the outcomes with payoffs (2; 2) or (1; 1) for the two players, respectively. Clearly, he prefers High, which results in a payoff of 2 for him, to Low, which leads to an outcome with payoff 1. So the unique solution to the game, as determined by backward induction, is that player I offers high quality service, and player II responds by buying the service.*⁴³

One more mini concept described in the theory and connected to just above presented example is so called first-mover advantage. As the first one chooses the strategy and informs the other players about it, the first-mover has an advantage. This is a change of the “rules of the game.” It is advisable the player to commit if he has this first mover power. This statement must be interpreted carefully. *For example, if more than one player has the power to commit, then it is not necessarily best to go first. Making player I the first mover is beneficial to both. The first-mover game always has equilibrium, but having to commit and inform the other player of a pure strategy may be disadvantageous.*⁴⁴

Agent’s optimal choice may depend on his forecast of the choices of his opponents. The theory contains two concepts: Noncooperatism and cooperatism. In first case the player gives the priority to its self-interest. Noncooperative player doesn’t mean that he/she do not get along or that they always refuse to cooperate, but they are solely motivated by self-interest, but can be cooperative in some settings. As an example could be given two hunters who needs to decide to hunt for stag or hare. *If both hunt for stag, they will catch one stag and share it equally. If both hunt for hare, they each will catch one hare and the later will catch nothing. Each hunter prefers half a stag to one hare. So cooperation both hunting stag- is an equilibrium or more precisely*

⁴³ Theodore L. Turocy, Bernhard von Stengel, *Game theory*, 2001, p.22-23

⁴⁴ Ibid., p. 26

*Nash Equilibrium in that neither player has a unilateral incentive to change his strategy. Therefore, stag hunting seems a possible outcome of the game. Cooperation is by no means a foregone conclusion. If each player believes the other will hunt hare, each is better off hunting hare himself. Thus, the noncooperative outcome- both hunting hare-is also a Nash equilibrium, and without more information about the context of the game and the hunters expectations it is difficult to know which outcome to predict.*⁴⁵

This just explained part is linked with “Theory of Choice”. The core idea is that individuals act depending on physical resources and actions of others that constrain them. However there is a discussion of the role of rationality and intentionality as a predictor of political behavior. *Sometimes behavior dictated solely by properties 1 and 2 is called “thin” rationality. This is because properties 1 and 2 are not predicated in any way on assumptions about the substantive content of human desires. Thus, thin rationality contrasts with “thicker” notions of rationality where specific goals such as wealth, status, or fame are postulated. In principal, thinly rational agents could be motivated by any number of factors. As long as these belief systems produce complete and transitive orderings over personal and social outcomes, we can model the behavior they produce using the classical model of choice.*⁴⁶ This theory put emphasis on certainty, which means that actors are sure about the choice environment and possible consequences. Let’s say we have an actor who has actions from which to choose and they possess information or knowledge about the context of their choices and therefore can predict the consequences of each action. But it happens, that actor’s lack of knowledge of certain thing and consequently it takes actions that would give uncertain consequences. *With the assumptions of certainty and feasibility, it makes little difference whether we speak of an agent’s preferences over actions or his preferences over outcomes. Assumption of uncertainty or incomplete information makes the distinctions between actions and outcomes relevant. We now turn to the concept of preferences and the types of restrictions that our two simple notions place on what outcome rational individuals may choose. Formally, preferences are modeled as a binary relation R which represents “weak preference.”*⁴⁷

⁴⁵Theodore L. Turocy, Bernhard von Stengel, *Game theory* 2001. P.3

⁴⁶ Nolan McCarty, Adam Meirowitz. *Political Game Theory*. 2007. p. 5

⁴⁷ I Nolan McCarty, Adam Meirowitz. *Political Game Theory*. 2007. p.6,7

It could be said that the agent are able to compare two outcomes (it is called completeness), but it might happen that he/she will not be able to make up his mind. But this completeness is not enough and it brings a bit of confusion. *The problem with such preferences is that there is no reasonable choice—why choose y when you can choose x, why choose x when you can choose z, and why choose z when you can choose y. Each of the following conditions on preferences resolves this problem.*⁴⁸

It happens that decisions are taken under uncertainty. We can assume that individuals can predict the consequences of their actions. As a replacement fit could be assumed, that outcomes arise probabilistically from the choice of actions i.e. those certain actions increase or decrease the likelihood of particular outcomes. Normally individuals should know which actions are most likely to produce which sorts of outcomes. *Thus, she would have to trade off this likelihood of generating a better outcome against her costs of taking each action. Deploying the troops would be rational if it is much more likely to lead to major concessions, the additional concessions are valuable to the agent, or if the costs of deployment are low. These are the basic trade-offs underlying the classical theory of choice under uncertainty. There are two key elements of this approach.*⁴⁹ So the first concept is a belief that is like lottery over the outcomes associated with each action. The second is the specification of payoffs associated with each outcome.

Another theory within game theory is bargaining theory which represents that political science is about “who gets what, what, when and how” and it has two sets of issues. The first are the questions of distribution — “who wins” and “who loses.” In this case: who would be the first to get Central Asia gas and in better conditions? The second is about the efficiency of political bargaining, which questions if the *bargaining* process itself consume resources or fail to reach outcomes that make everyone better off? J.Nash tried to model bargaining. *Suppose that two players A and B are negotiating over the allocation of X units of some resource. We assume that X is infinitely divisible so that the feasible allocations are all x_A and x_B such that $x_A + x_B \leq X$. Each player receives utility based on their allocations, $U_A(x_A)$ and $U_B(x_B)$. We assume that U_i is strictly increasing and concave for both players $i = A, B$. In the event that no agreement is reached, each player receives a default utility, disagreement value or outside option of $u_i > u_i$*

⁴⁸ I Nolan McCarty, Adam Meirowitz. Political Game Theory. 2007.p. 8

⁴⁹ Ibid, p.23

(0). Finally to ensure that the bargaining problem is non-trivial, we assume that there exists at least one allocation (x_A, x_B) such that $U_i(x_i) > u_i$ and $x_A + x_B \leq X$. This ensures that there is feasible allocation that both players prefer to their disagreement values. First, each player does better when disagreement provides it with a higher utility and worse when their opponent has a better outside option. Second, if each player has an equally valuable outside option, the resources are split evenly. Another way to interpret Nash's solution is to note that the bargainers insist upon their disagreement values and equally split the surplus $1 - u_A - u_B$ which gives each a utility of $u_i + \frac{1 - u_A - u_B}{2}$.⁵⁰

Risk can't be omitted in concept of bargaining. Bargainers have always to think that an agreement will not be reached and they will be left with their outside options. The behavior of agent determines the outcome (i.e aggressiveness, might lead to discontinuation of negotiation) Consequently, it seems natural to think that bargainers who are more willing to tolerate risk should do better because they are willing to make tougher demands and more aggressive reject offers. While the Nash bargaining model, "black boxes" the negotiation process, the solution is consistent with this intuition.⁵¹ each bargainer's share is decreasing in their own risk aversion and increasing in the risk aversion of their opponent. Bargainers who are risk acceptant enough to take tough positions (i.e. increase the likelihood of disagreement) should receive larger allocations.

One of the final questions of this part of the theory needs to answer how to design the game to achieve a desired outcome. The theory part that asks this is a mechanism design. A designer or principle selects a mechanism to play. Examples include the selection of tax codes to induce agents to reveal their willingness to fund public projects, the design of auctions to maximize revenue, and selection of reelection functions by voters to create incentives for government officials to "behave" while in office. For example, mechanism design is often used to investigate whether a poorly informed principal (e.g. legislature or executive) can create incentives so that well informed agents (e.g. committees or bureaucrats) take actions to achieve ends which the principal desires.⁵²

⁵⁰ Nolan McCarty, Adam Meirowitz. *Political Game Theory*. 2007 p.217, 218, 219

⁵¹ Ibid., 220

⁵² Ibid., p.257

The planner always commits to one mechanism, but incentive compatibility and potentially individual rationality constrains. Ability to commit is perceived as unreasonable so automatically choice of mechanisms limited. *Restrictions include an inability to provide transfers, and limits on the potential commitments that can be made. This means nothing more than the recognition that there is a principal or boss (or several) and an agent or subordinate (or several). The principal is generally assumed to have a limited number of possible instruments which he can control. In the language of mechanism design, the principal is the planner and doing a “good” job or revealing whether one is a “good” type corresponds to selecting appropriate messages in the context of a direct mechanism. The limited number of levers corresponds to constraints on the mechanism that can be enacted.*⁵³

Most foreign policy decisions are made by carefully weighing the advantages and disadvantages likely to follow from alternative policies. *A passive or indifferent nature is not usually a significant force in international politics. If “nature” as a fictitious player) bequeaths to a country great natural resources (i.e oil) it is the beliefs held by leaders about how to use these resources, not the resources themselves, which usually represent the significant political factor in its international relations (as the policies of oil producing countries made clear for oil consuming countries sin 1973-1974).*⁵⁴

⁵³ Nolan McCarty, Adam Meirowitz. *Political Game Theory*. p. 277

⁵⁴ Steven J.Brams. *Game theory and politics*. 2004. P.3

3. ANALYSIS

I would like to start analytical part with the concept of energy security. Energy and security that comes with it, is based on bilateral relations. Energy field is a complicated system and properly to understand the system requires time and research. Therefore to look for a new models or approaches for problems and solutions dares not all. As Energy security is a broad notion encompassing variety of problems it could be analyzed through internal politics or global angles in context of soft and hard politics.

Lithuania, at least observing its actions perceives energy security as energy independence. The latest strategy proves that. It says that if we (Lithuania) want to be safe, we have to reduce energy dependency from traditional resources (oil, gas) and the monopolists, which provide them. In Lithuanian Energy Law, energy security defined as energy resources supply and technical security. One main weekly newspaper polls show that after 2012 Parliament elections the perception of energy security might change. New coalition might discuss and correct the process of the projects and how to improve relations with current suppliers. In other words after elections it could be expected two things: decisions favorable to Gazprom and the revision of existing strategic projects⁵⁵.

Energy security in Lithuania is a method of survival. There is the first discrepancy with many of EU members; especially “old ones”. For them it is not so crucial diversify supplies as they could have more options due to location, have less tense relations with Russia and pay much less than Lithuanian consumers. They are also more concerned about environment side of energy issue and Lithuania does not pay much attention to it, as the priority is to reduce one of the most expensive energy prices in Europe. Lithuania is not secure in long and even short term. In fact, increasing security is not only diversifying imports, but now also reducing or replacing them by renewable energy. When it comes to this point, it is one more aspect that Lithuania and EU contrasts. While Lithuania and other newer EU members now cannot “afford” to use renewable resources or the process is too slow, old member are more ready to switch to this energy form. After latest nuclear catastrophes, many countries are more cautious in nuclear programs.

⁵⁵ Veidas. Lt. *Lietuvos energetinė nepriklausomybė: ar besulauksim?* 2007 March, published on: <http://www.veidas.lt/lietuvos-energetine-nepriklausomybe-ar-besulauksim>

Lithuania's nuclear program also receives much criticism and is being questioned if it would bring so wanted energy security. Some European countries are also discussing the necessity of nuclear plants. While comparing Lithuania and Central Asia countries, the only similarity is that both Lithuania and Central Asia countries try to reduce dependency and Russia's influence. Central Asia's countries security could be described as finding partners and establishing appropriate supply ways as so far it is not stable.

These countries are vulnerable to variety of disruptions beyond their control. It is stated that energy security does not limit within one state, it means there should be mutual relation between the parties. However, analysis will prove those different needs or a different stage of development makes it almost not achievable.

If one would agree with Matthew Ocheltree who is saying that energy security is a stable market, one would agree that the region (Europe and Asia) is lacking this. Energy market is very fluctuating, especially when it comes to Central Asia, where the market is filling with new buyers from EU and especially now with Far East.

Despite all these, there one more fact that matters and it needs to be put into frames of energy security. Management and good perception of what is energy security, is a foundation in increasing security it. R. Kuodis⁵⁶ emphasizes that *energy issue is a complicated system and there are not many politicians that tries to understand all aspects of this system. Consequently for most of them is more manageable to follow formal model, which will say what, and when to do. What is more, the problem of energy issues is that it is time consuming. All policy implementations, investments etc. pay off not as fast as we all would like. Therefore so many decisions are just fast patching together to calm down people. The strategies should be not rewritten but modulated. This leads to conclusion that even alternatives should be planned and overview carefully and wisely, not rushing just to grab opportunity to justify ourselves that we did nothing so far so now we will take everything. Too many alternatives might be too expensive and reckless way.*⁵⁷ Every alternative or extra security has its own price. In most cases, the price over import, new terminals etc. exceed Lithuania's and societies opportunities and capabilities to have them. Lithuania alone cannot afford to make good studies of alternatives or to build

⁵⁶ Lithuanian Economists

⁵⁷ Delfi.lt. R.Kuodis: *be modelio retam politikui projektai telpa galvoje.*
<http://m.delfi.lt/verslas/article.php?id=58774149-201205>

facilities alone, or even if it would, then it would be too expensive to maintain them alone. Energy sector depends a lot on increasing demands, conflicts, liberalization processes, environmental problems, technologies etc. So in order to be prepared for likely alterations, assess possible challenges and possibilities the best method is probably scenario writing.

When it comes to internal energy security, it is important to stress that energy issue has a big sociopolitical aspect in Lithuania. So far, Lithuania's Government failed to "fix" this problem. Increasing prices threatens simple survival each winter. This issue is being discussed not only in Government but and in everyday's life of regular Lithuanian. This instability causes (apart from other internal issues) big tension between Government and society. So as Goldthau puts: energy relations are no longer solely governed by market incentives but are increasingly subject to protectionist, neo-mercantile and geopolitical considerations.

3.1 Lithuania's situation

Lithuania- a small country with three mln habitants located on the eastern shore of the Baltic Sea. Country has no domestic natural gas reserves and only limited oil reserves. Lithuania relies on Russia for 90% of its oil and 100% of its natural gas supply. Owing to its Soviet history Lithuania's energy infrastructure is oriented eastward. With these short subchapters the author will start linking facts and analysis.

3.1.1.Oil sector

Oil products constitutes around 30, 8 % of oil domestic consumption. Lithuania has good technical opportunities to import oil and its products from various countries. It is the only Baltic country, which has oil refinery station. The Mažeikių refinery is Lithuania's largest commercial entity. The facility has the capacity to process 10 million tons of crude per year, but has never reached this level due to inconsistent supplies. Lithuania's main oil as well as gas pipelines comes from Russia passing neighboring Belarus. At the country's pumping station in Biržai (near the Latvian border), one line turns northward into Latvia while the second continues westward to the Baltic Sea. There is a state-of-the-art onshore terminal and offshore sea platform at the coastal village of Būtingė, which has a capacity of 12 million tons of crude per year. So far, 70 % of control packet belongs to Lithuania's state. Now the only terminal client is

“Mazeikiu nafta”. If this company would have some problems this terminal potentially could become the only import way of oil products.

With these stations, Lithuania is an important transit point between West and Russian markets. So far, Russian companies are dependent on these capabilities. On the other hand, the location allow for the import of oil from destinations other than Russia (i.e. export of Kazakh oil, which is being transported to the ports by rail). According to *Kęstutis Budrys*⁵⁸, *the situation* in oil sector is the most stable in all energy sectors. He thinks that at the moment the most important thing is to maintain stability of „Mazeikiu nafta“ owners in order to constrain any influence from Russian companies.

3.1.2 Gas sector

The gas sector has the worst situation. Though, it constitutes around 28, 4 % (Less than oil), a single pipeline that connects Russia and Lithuania via Minsk supplies Lithuania. Lithuania does have the ability to import small amounts of gas from gas storage facilities in Latvia in case of emergency (In worst-case scenario it could cover 50% of the needs). Unfortunately, this terminal is as an alternative in case of “emergency”, so the threat is still big as there are no other pipeline connections with other EU countries.

Lithuania receives natural gases in three ways: from AB “Lietuvos dujos” (40 %), UAB “Dujotekana and UAB” Haupas imports more 15%. In addition, two big companies, who have contracts with Gazprom, receive the rest. (Achema and Kauno Termofikacijos Elektrine).

One more possibility for securing Lithuanian access to natural gas would be construction of underground gas storage (UGS) facilities. There were conducted few research and it was proved that at this moment much more potential has been shown in neighboring Latvia. Lithuania’s President D. Grybauskaite emphasized that Lithuania needs LNG. There were discussions if Lithuania needs two or one is enough. Two competing projects shows that the solution so far was not found, but it is clear, that two LNG would be too expensive for country as Lithuania.

According to 2007 natural gas law, Lithuania’s market is open to everyone, however no one switched to new importer, and Gazprom remains the only one. Therefore, this liberalization of market is still very formal and was not implemented. It is clear that Lithuania as majority of EU members is missing a well-functioning energy market, which on top of that is disturb by Russia’s

⁵⁸ Counselor of the Lithuania’s President

energy politics. As researcher, Molis writes: *Major vulnerability is caused by a specific circumstance in this regard: the single supplier, or regulator in the case of electricity, tends to follow a strategy of 'energy diplomacy', rather than the principles of a market economy. The obligation to pay a considerably higher price for natural gas than many other member states of the EU, the avoidance of the Baltic States as transit countries, and blackmail regarding possible supply disruptions are clear consequences of this situation.*⁵⁹

The gas sector is the most complicated one not only because Lithuania is 100% dependent on Gazprom imports. This is just part of the problem. Gazprom also controls, whether directly or through subsidiaries, both crucial infrastructure objects (pipelines and storage facilities), as well as the gas distribution companies. Therefore the future construction of UGS or LNG facilities or connections with Poland might be determined by Gazprom and its partners. Armed with regulations under the EU Third Energy Package which came into effect in May 2011, Lithuania has for instance decided to choose the most drastic of the three ownership unbundling alternatives, namely full separation of ownership of gas supply and transportation assets. As a result, Gazprom which holds 37.1% of national gas monopoly "Lietuvos Dujos", will have to cede its ownership over the country's pipelines, therefore enabling Lithuania's government to regain control of its major gas infrastructure. As an alternative to Gazprom's supplies, Lithuania is planning to take the advantage of the EU's Amber pipeline project which will link the country with Poland's planned LNG terminal due to come on-stream in 2015.

3.1.3 Electricity sector

Until 2010, the main electricity source was Ignalinos Nuclear Power Station. After closing the last reactor the main electricity production source became Lithuania's power stations, but their prices are not concurrence, therefore the rest energy is imported. The plan is not only a new NP, but also already existing termofication and power plant modernization and increase of their efficiency. In the Energy plan, it is written: if the demand will increase new power plants should be built in main bigger cities, the main aim remains a new nuclear station. The second important plan was by 2012 to be connected with Scandinavia and Poland's energy nets. Now, when it comes to electricity, Lithuania deals only with Latvia and Kaliningrad. There are three electricity

⁵⁹ Arunas Molis, *Rethinking EU-Russia energy relations: What do the Baltic States want?*. 2011. February

networks in Europe: Nordel (Iceland, Denmark, Sweden, Norway, and Finland), IPS/UPS (the entire former Soviet bloc, including Lithuania), and UCTE (all other European continental countries). Lithuania wants and needs to join both Nordel and UCTE. *Linking the Baltic countries' electricity systems to the UCTE—preferably as soon as possible—is an important issue from the point of view of both national sovereignty and European integration. The European Commission calls the establishment of an energy link between the Baltic States and the rest of Europe “fundamental...to guarantee [their] security of supply.”⁴¹ Without connections to the rest of the EU, Lithuania and its Baltic neighbors will remain energy islands.⁶⁰* In 2015 if everything goes well Lithuania should have connections LitPol Link and NordBalt.

Nuclear energy

At the EU summit in Lahti, Secretary-General Javier Solana argued that all potential energy suppliers for Europe are unstable—with the exception of Norway. Therefore, all EU member states ought to consider nuclear energy. While nuclear power often encounters fierce domestic opposition in many European countries, this is not the case in Lithuania. If Lithuania, Latvia, Estonia, and perhaps Poland do not build a new nuclear reactor, Lithuania will be forced to drastically increase its natural gas consumption. This would mean heightened dependence on Russia. It is therefore critical to build a new nuclear plant in Ignalina. Construction of this new states have agreed to build a new plant, their markets are too small to justify the cost; therefore, Poland's involvement is important.⁶¹ This quote presents a stance that is predominant in Lithuania. However this Project faces many objections. Many are questioning its necessity as there is a plan to build one in Kaliningrad and Belarus, where if imported, electricity would be cheaper. Another big problem is weak external support even from neighboring countries.

Not everything is as bad as it might look at first sight. Lithuania has some geographical location advantages. Tankers via the Baltic ports or pipelines transport a large share of Russian oil and its products to the EU either over the Baltic States land. One more very important trump card is Kaliningrad as Russia is using Lithuania as transit country. Despite Russia, using Lithuania to export gas to Kaliningrad, Lithuania cannot be considered a transit country as amounts are not big, but in this regard, Lithuania is important. Moreover, this situation might change due to

⁶⁰ Zeno Baran, *Lithuanian Energy Security: Challenges and Choices*, 2006, P.19

⁶¹ *Ibid.*, p. 36

increased demand from Kaliningrad or decisions from Kremlin about supplies to Kaliningrad. Of course, companies loyal to Gazprom may not agree to satisfy the ‘political’ requirements of the Lithuanian government, control the pipelines going through Lithuania but in this regard Lithuania still remains important strategically and can always use this “card”.

There is one more fact that needs to be taken into consideration and analysis. Basically all means that Lithuania are using and will try to use are aiming to get a cheaper energy. This fact is one of the reasons why so many importers are so attached to suppliers who provide and sell the cheapest energy. In fact partly this is the reason why Lithuania is still buying Russian gas. Naturally, then the question comes to mind, if alternative has to be just cost-efficient? Lithuania’s society is expecting lower prices and many Western experts consider the diversification of the supply of energy resources only to make sense if it is economically feasible. For instance, it is argued that if it is cheaper to import electricity from Russia than from another country, electricity should be imported from Russia. Otherwise, consumers will have to share the burden of expensive projects by being forced to accept much higher energy prices. If all EU and Lithuania’s projects would come true it doesn’t mean the energy would be cheaper. When engineers are forecasting energy perspectives they refrain from promises from cheaper heating and electricity prices. A.Abromavicius⁶² states: *if the market is organized and matches the principles of open and competitive economy, so the market but not a supplier says the price. The price not necessary decreases, but at least there is a hope to have at least objective price bearing in mind the current situation and shouldn’t be increasing as it is now, when we are dependent on monopolists.* To the raised question it could be answered, that for Lithuania as well as other countries alternatives should bring stability in prices and energy market. It could be also added, that when in the market there are more „players“ companies and people will have more options to choose, what type of energy to use: renewable or nuclear or etc. So to alternatives shouldn’t be looked just from economical side.

No doubts one of the good things in this issue is that Lithuania’s Government recognizes the major risks in the energy sector quite well and are trying to mitigate these vulnerabilities. But Lithuania cannot accomplish this alone. *It is essential that the EU speak with one voice on energy security and not allow Russia to once again divide the continent into an “old Europe”*

⁶² President of consultancy company “Sweco Lietuva” Taken from monthly paper “Veidas”, 2012, nr 1

*and a “new Europe”—a division that projects such as the planned gas pipeline linking Russia and the EU via the Baltic Sea (Nord Stream) would effectively create.*⁶³

This following section will show what is Lithuania's, as a small country's possibilities and limitations. Is it weak in an asymmetric relationship? In fact, it always depends in which context the country is analyzed. As it was mentioned, energy politics inevitably crosses with politics of other countries and in many researches Lithuania is portrayed as mainly weak state. And the author would like to prove that it is not necessary the case.

The best is to begin with internal matters. The small states theory talks about states administration capabilities to manage the situation and automatically determines states capabilities with other countries. If one would look at Lithuania's administration would agree that it is in most cases disorganized. Lithuania is one of the countries with a high level of corruption. It means that government's decisions are easily influenced and are or might be unilateral. Unfortunately majority of the main energy companies are controlled or influenced by Russia and this is the legacy of Soviet occupation. However confrontations with Russia and historical grievances that Lithuania reminds, shows that the Government is trying to pursue anti-Russian influence politics. As I mentioned, the Government realizes the risks. The new energy strategy proves that.

Despite internal bureaucracy and corruption as small states theory says, Lithuania on top of that, inherited EU bureaucracy. Where it leads? To so many discrepancies or as theory says severe problems in matching bureaucratic rules with their predominantly particularistic societies. Due to bureaucracy so many projects are delayed and not all what EU would like to do could be implemented or needs to be implemented.

According to I. B. Neuman, S. Gsthol suggested strategies, which small states use; it could be proved that Lithuania in this context is not so weak. First one is for example becoming part of international organization. Here could be mentioned NATO, and recently established the only NATO Energy Security Center in Baltic States. Lithuania is trying to organize blocs and is looking for cooperation and is creating smaller units, such as Baltic States Unit or partnership with Poland and even Scandinavia. What does it mean in this context? It shows that Lithuania is capable in organizing her foreign politics and stand for itself. The theory states, that being or not

⁶³ Zeno Baran, *Lithuanian Energy Security: Challenges and Choices*, 2006, p. 3

in the union, especially if we talk about small states, it needs or can't avoid collaboration. New global challenges and risks for small states necessitate regional collaboration in policy making. *While to this day we cannot detect any serious initiatives here, it is clear that because of the policy-making mechanisms in the EU, small states are bound to work more closely together (Thorallson and Wivel 2006).* The EU may push small states towards more collaboration in various policy areas. However there is other side of the medal. Despite that being part of the union can hinder in many cases, but it has its good side as well. Policy making mechanisms in the EU can force Lithuania to work closely, when EU is pushing for various policies or projects. Like renewables or common Central Asia strategy where theoretically this strategy could benefit most of EU members.

If we consider how strong Lithuania perceives herself. In the context of energy security Lithuania clearly sees where to improve, however despite it's at first sight clear vision, as it was mentioned before, Lithuania's steps are not so consistent, but again probably it is hard when energy is complicated system and when you have to deal with new possible partners, convince other members and also look for regional partners. The second thing these authors points out is a diversification of trading partners; and strategies to avoid foreign determination (i.e. neutrality, integration) and that is what Lithuania is aiming. It realizes threat and using various means tries to diversify its energy imports.

When it comes to negotiations topic, where Lithuania alone or with other Baltic countries and Poland is negotiating and trying to convince other EU member to pursue more active Energy politics, in many cases it fails to succeed. Basing on theory it could be said that it lacks sufficient resources to follow all negotiations. It means that as a country (compare a „young one“) she counts 8 years in EU, these years could be reduced if we would take into account quite new energy issue in EU context. All in all it means that Lithuania doesn't have a good negotiation experience and on top of that it is hard to keep and continue negotiations in search for alternatives or securing them when the needs of member states differs. On the other hand, if one recalls there is always an implied bargain for small-state independence which works in its favor for a while, meaning small state (Lithuania) needs to wait for a time to use this advantage. But if to link it with game theory which says that bargainers always have to contend with the possibility that an agreement will not be reached and they will be left with their outside options, for Lithuania better not to count just on EU (as it 's promises were broken many times).

It was said, that EU helps with policies and from Lithuania's stance and on behalf of other Baltic countries even Poland it could be said that small countries can be beneficial, in this case to EU while trying to pursue their exit of energy island. They are trying to bring balance and solidarity in EU, maintaining a general energy security if we would think about EU as a whole body. Throughout the text it was and will be mentioned Ukraine's role (which could also be named as a small state) in energy sector. It can be a proof that if in union one states problem can threaten security and cause many problems to others, small states can act strategically to preserve their security while at the same time contributing to the stability and efficiency of international organizations or other international unions. Therefore using this as an argument it can influence some decisions.

The last point talked about in small states theory and relevant to this part would be location. On one hand geographically Lithuania is limited when it comes to diversification, as other countries such as i.e. Greece or even Poland are closer to supplying countries, but Lithuania still are the bridge between west and east and in energy field it matters.

Another very important point is historical experience, which in most cases decides the trust between two parties. The small state is not doomed to passive acceptance of the enviroing inputs; it may under certain circumstances be able to influence the operative environment to improve its position. These circumstances are that EU needs diversification and to increase imports because of increasing demand. However, great power tension is required to make the small state's strategic position relevant to a political situation. Tension increases the effect of a change of power cycle, especially that of a decline. It means that all parties (Russia, Lithuania, with Baltic States, EU, and central Asia countries) are approaching the turning point, where either they will cooperate: Lithuania with EU or EU with Central Asia and etc. will do it together or it will be a division and so wanted solidarity will be out-maneuvered by separate gas and oil corridors.

3.2 EU's internal energy issues and politics

As part of EU, Lithuania is dependent on the EU politics. Any alteration of EU strategies or politics directly affects Lithuania's energy security. EU and Lithuania has to consider each other before constructing plans. Energy issue in Lithuania cannot be analyzed solely and other way round. *According to Brian White, European foreign policy actually operates at three concurrent*

levels: *The Community level (mostly concerned with economic relations and other external interests), the Union level (implemented by the Common Foreign and Security Policy and focused mainly on security and defense), and National level (comprising the foreign policies of individual member states).*⁶⁴ This analysis takes into account basically each of these three levels.

Energy became part of International Relations and in so many cases; it is being used as a political tool. T. Romanova writes: *In other words, private activities started to undermine the centrality of the state and the power of national boundaries. State authorities, therefore, increased their cooperation to provide a new set of regulations for both business and the non-profit sectors, and thus preserved their status in the regulation of various activities.*⁶⁵ This statement and general question of this paper ask how cooperative are EU in energy sector?

Europe is consuming a lot of gas and oil and the demand will be increasing and dependence too, if there will be no diversification. *The Brotherhood pipeline, accounts for almost 25% of gas supply for the Europe region. The other line bringing gas from Russia to Europe is the trans-Balkan line, running from Russia to Bulgaria. In Bulgaria, the Southern branch supplies Greece, and the Eastern branch, Turkey. The Trans-Balkan covers the vast majority of South East Europe's gas imports. European dependence on Gazprom varies from 22 per cent of consumption in France, 44 per cent in Germany, 60 in Turkey, 65 in Austria, 79 in the Czech Republic, 97 in Bulgaria, and 100 per cent in Slovakia, to name a few. These are prominent examples of "strategic dependence."*⁶⁶

*The EU is importing about 80 per cent of crude oil, about 60 per cent of natural gas and about 40 per cent of coal consumed. Russia is the most important energy supplier of the EU. According to the projections of the leading international energy research institutions, Europe's oil and coal consumption and the use of nuclear energy will stagnate or diminish, whereas gas consumption will rise slightly and then stagnate. Use of renewable will increase sizable*⁶⁷ The gas dependence on companies and states from outside Europe is more urgent than in the case of oil and hard coal, which are traded on worldwide basis.

⁶⁴ Dmitrios Triantaphyllou and Yannis Tsantoulis. *Issues in EU and US Foreign policy*. 2001. P,271, 272

⁶⁵ T. Romanova. *Legal Approximation in Energy: A new approach for the European Union and Russia*. 2012 p. 23

⁶⁶ M. Tsereteli. *Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region*, 2008, p.24

⁶⁷ European Commission Statistics. 2008 http://ec.europa.eu/energy/observatory/oil/import_export_en.htm

After 2006, it was showed, how at the end of the day old EU members cannot disregard other members. Due to conflict with posovietic countries, all Central and part of Western European countries suffered from energy shortage when Russia stopped providing gas when PKN Orle (Polish company) acquired “Mazekiu nafta” or when exports were reduced to Check Republic in 2008.

Before contemplating the EU’s energy future, it should be underlined that EU as an entity encompasses a wide variety of sub-regions and nations, all with their own characteristics in terms of economic and energy structures and socio-political and governmental cultures. Depending on investigation topic, EU could be subdivided differently. In short, when we talk about energy, EU members have dissimilar amounts or resources, demands, location, current partners and etc.

European Council on Foreign Relations: *We have identified five distinct policy approaches to Russia shared by old and new members alike: ‘Trojan Horses’ (Cyprus and Greece) who often defend Russian interests in the EU system, and are willing to veto common EU positions; ‘Strategic Partners’ (France, Germany, Italy and Spain) who enjoy a ‘special relationship’ with Russia which occasionally undermines common EU policies; ‘Friendly Pragmatists’ (Austria, Belgium, Bulgaria, Finland, Hungary, Luxembourg, Malta, Portugal, Slovakia and Slovenia) who maintain a close relationship with Russia and tend to put their business interests above political goals; ‘Frosty Pragmatists’ (Czech Republic, Denmark, Estonia, Ireland, Latvia, the Netherlands, Romania, Sweden and the United Kingdom) who also focus on business interests but are less afraid than others to speak out against Russian behavior on human rights or other issues; and ‘New Cold Warriors’ (Lithuania and Poland) who have an overtly hostile relationship*⁶⁸. As one can see different needs and Russian gas politics made a division between EU members, where some countries pursue a pro-Russian stance and another’s are using anti-Russian approach. Many researchers note that the number of Trojan horses is increasing as some countries sign new contracts with Russia and are disregarding states as Lithuania situation. The separate projects direct or with indirect support from Russia proves that to form one common strategy is not easy and Russia is taking advantage of bilateral manipulations.

In short, it has become clear that all energy dependencies are not created equal-different histories, geographies, and economies has resulted in very different energy interests at the

⁶⁸ Mark Leonard and Nicu Popescu. *A Power Audit of EU-Russia Relations*, 2007, P.2

*national level of foreign policy, even when the raw import numbers are similar.*⁶⁹ Basing on these facts, this chapter attempts to analyse EU as entity's actions and strategies.

Though this paper excludes position of Russia, it still will be mentioned and analyzed aspects of energy politics in the shade of Russian energy politics. As Lithuania, majority of EU countries has bigger or lesser dependency as well. The EU and Russia cooperation is mainly based on energy. *According to official estimates, 74 per cent of their bilateral trade comes from mineral fuel and related energy goods. The EU imports about 60 per cent of Russian natural gas exports, which is about 20 per cent of the EU's consumption. EU member's states are also a destination for 50 per cent of Russian oil exports, which amounts to about 34 per cent of the EU's consumption. Finally, the EU is the source of new energy-saving technologies for Russia as well as ways of producing RES and improving energy efficiency.*⁷⁰ *Europe is a net importer of energy, and according to a European Commission report, two-thirds of the EU's total energy requirements will be imported by 2020, with natural gas imports estimated to rise to 75% of gas imports. Europe currently has three major sources of energy: the Northern Sea region and the potential Norwegian arctic sector from the North, Russia from the East, and the Middle East and North Africa from the South.*⁷¹

*In 2009, Russia withdrew its commitment to provisionally apply the Energy Charter Treaty (ECT), an agreement regulating investment protection and transit in the energy sector in Europe and the Commonwealth of Independent States (CIS). In addition, Russia is neither a member of the World Trade Organization (WTO) nor a signatory to any other international economic agreement. In other words, there is no international legal instrument to limit Moscow's actions in the field of energy policy.*⁷² How it is relevant in analyzed context? EU's legal power is weak and there are not strong member tights in energy field. Most countries are acting on their own. This is a favorable situation for Russia, as cooperation with one of members or violation of any agreement could not be stopped by EU power or other supranational institutions. *Russia still considers Ukraine, Georgia, Azerbaijan, Moldova, and others as its own exclusive domain (or backyard), and large European powers Economic and Energy Security of Europe and the Black-*

⁶⁹ Dmitrios Triantaphyllou and Yannis Tsantoulis. *Issues in EU and US Foreign policy*. 2001. P. 280-281

⁷⁰ T. Romanova.. *Legal approximation in Energy: a new approach for the European Union and Russia*. 2012. p 30

⁷¹ M. Tsereteli, *Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region*, 2008. p. 22-23

⁷² Arunas Molis. *Rethinking EU-Russia energy relations: What do the Baltic States want?*, February 2011.p. 19

*Sea Caspian Region such as Germany, France, and Italy seem to be comfortable with this attitude. Russia also mistrusts Europe, so strategic cooperation with Europe remains unlikely. Europe must ask a fundamental question: how interested is Russia in European economic and energy security? What can and will Russia do to prevent Caspian gas and perhaps Persian Gulf gas too, from entering the European market? Only after asking these, and other strategic questions, can Europe build an adequate strategy and relationships.*⁷³

Going back to Energy situation it could be said that electricity import in Central and Eastern Europe doesn't differ much from old members, but distribution of imports in CEE is not equal. Poland, Rumania, Bulgaria, Estonia, and Ukraine are more independent from external resources, while Moldova, Latvia, and Lithuania depend on 40% of the import. *Macedonia, Bosnia and Hercegovina, Slovenia, Lithuania, Estland, Slovakia, Bulgaria, Check Republic, Belarus and Moldova almost all natural gas is imported.*⁷⁴ One of Baltic States wishes is to have a common electricity market. So far, this dream was not achieved as not all member countries want to open their energy markets. *Too often, there is too little competition among too small a number of suppliers. This state of affairs, after twenty years of Post-Soviet transition and five years into the integration of Central and Eastern Europe into the EU is not the result of some design by Russia. It is the result of Europe's own failure to unify its market.*⁷⁵ To put in other words, EU was not strong and well thought-out enough to organize its energy market, especially when dealing with Russia. According to game theory, all players are rational and choose actions that give the preferable outcome. If we observe Russia and compare it with EU, Russia's actions benefited it more as it managed to maintain its advantage over EU. It cannot be said the same about EU as an entity. Above mentioned country groups could be called as rational, as they act on their own, looking for what benefits them the most. In this case, it would be more clear-cut to say that EU members have two strategies. One would be a general EU strategy and other, when outcome acting alone probably seems resulting better than with other members. In some games,

⁷³ M. Tsereteli, *Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region*, 2008. p 8-9

⁷⁴ Mikalos Losoncz. Analysis: Energy dependence and supply in Central and Eastern Europe. 2006 05 15. Rasta: <http://www.euractiv.com/en/energy/analysis-energy-dependence-supply-central-eastern-europe/article-155274>

⁷⁵ Iana Dreyer, Fredrik Erixon, and Robin Winkler. *The Quest for Gas Market Competition Fighting Europe's Dependency on Russian Gas more Effectively*. 2010. p.5

examination of which strategies are dominated results in the conclusion that rational players could only ever choose one of their strategies and it might be one of the answers why EU strategies are as incoherent as members might seem to choose not a common strategy. Thus as game theory says actors (EU) members do have an understanding of the process and situation, I assume they see that to negotiate independently with suppliers is way faster and cheaper than as on behalf of all EU. As a result, choice making based on the expected utility model of decision-making and link their choices with search for concept of equilibrium. In addition, they are willing to cooperate only what payoffs each potential group.

To force countries to pursue policies it has been tried to give sanctions, but as it turned out it was not effective. One of Lithuania's as well as other Baltic States aim is to find a way to make this aim work. The situation is much easier in electricity sector as in gas, because to connect countries with grid it seems much easier. Electricity issue could be solved internally, but as it became obvious gas and oil needs alternative ways. Baltic States are the ones who were trying to argue for cooperation with other regions and push these policies, unfortunately, so far, their efforts, and suggestions went unheeded. Molis writes: *Recognizing their limited influence in bilateral talks and the absence of means to manage energy supply related crises, the Baltic States' governments have discovered another tactic on how to deal with energy insecurity. The main element of this is to argue for the construction and strengthening of EU solidarity in energy affairs. It seems that the main constraint is not the opposition of some member states to the concept of 'solidarity' in energy affairs, but different perceptions inside the EU on what 'energy solidarity' actually means. Consequently, building a consensus has turned into the main task for the Baltic States.*⁷⁶ More precisely, the Central and East European states are highly dependent on Russia, whereas the EU leading members can benefit from greater supply diversity and have good relations with Gazprom. Germany, France, Italy are good examples. Therefore, due to earlier explained differences in EU solidarity energy security for most of the countries probably means short-term energy security.

Regardless all analyzed facts, if one would look at EU energy policies and strategies would think that establishment of the common EU energy security becomes the most important column for Energy politics. Basing on all so far existing EU treaties and documents, it seems that it satisfies more the interests of the largest EU members and their companies who are the main players in

⁷⁶ Arunas Molis. *Rethinking EU-Russia energy relations: What do the Baltic States want?*, 2011, p.21

the national energy sectors. French, Germany, and Italian companies are competing with each other to receive better import conditions and have already succeeded in implementing (or almost implementing) some projects as North Stream, and they would not like to give up this power. On top of that, many authors and researchers emphasized that in EU energy politics decisions are greatly influenced by private companies: *within the EU and its individual member states, they are represented at the level of private companies.*⁷⁷

However EU internal energy businesses can't be portrayed just in "black". It was made some steps towards common politics. Right after oil crises, it was adopted measures (modest ones) to maintain stocks. In the mid 1990 *came out the adoption of the Directives creating the internal electricity and gas markets. A first series of liberalization measures adopted in 1996 and 1998 were supplemented by a second series of compulsory measures in 2003. The Commission subsequently carried out a broad sectorial review of this liberalization process and proposed the Third Energy Internal Market package, which was adopted by the Council and Parliament in 2009 and provides a new regulatory framework for the promotion of the internal energy markets.*⁷⁸ The Lisbon Treaty and more detailed EU regulations on the creation of a common EU energy market (e.g. third Legislative Energy & Gas Package) were big steps forward and gave hope to Lithuania. Unfortunately despite obligations to implement the Third Energy Internal Market Package, yet most of them failed to correctly implement the two previous packages. Almost all member states are still in violation of different provisions of the existing community legislation on electricity and gas, e.g. the second Package of 2003. *The European Council subsequently endorsed the package, designed to establish a comprehensive European energy policy by 2009. This new energy policy consists of three pillars: increasing 'security-of-supply'; ensuring the competitiveness of European economies and the availability of energy at affordable prices; and promoting environmental sustainability and combating climate change. Interestingly, most of these objectives were in fact already present in the Commission papers of the nineteen-nineties, but never endorsed by the Council before. The six priority areas for action identified in the package are energy for jobs and growth, tackling security and competitiveness of energy*

⁷⁷ Arunas Molis. *Rethinking EU-Russia energy relations: What do the Baltic States want?* 2011. p.25

⁷⁸ Sami Andoura, Leigh Hancher and Marc Van Der Woude, *Towards a European Energy Community: A Policy Proposal*, Policy Proposal by Jacques Delors, 2009. p.10

*supply through solidarity among member states, a more sustainable, efficient and diverse energy mix, fighting climate change, encouraging innovation, and relations with third countries*⁷⁹.

Additionally, the Commission initiated in 2007 an institutionalized review of the energy policy. The Commission has to put forward updated Strategic European Energy Reviews (SEER), monitoring progress and identifying new challenges and responses, to be presented to the Council and European Parliament on a regular basis. While the first SEER of 2007 mainly dealt with the completion of internal markets for energy, the second, released in 2008 has addressed the issue of energy security.

The only treaty that had for the first time included a chapter on energy is Treaty of Lisbon. As this treaty counts just few years, these facts can be linked with earlier analyzed Lithuania's negotiations. In fact, the same could be said about the rest of members. Nash adds that bargaining outcome basically depends on relative strength of the party's position. All members have different positions and strength, but are just learning how to solve energy issues together. *That means in more concrete words that so far, EU decisions in the sphere of energy policy are only made within the fringes of other competences (most notably environment, technology, competition, and internal market policies)*⁸⁰

'Security-of-supply' has been addressed in several documents, but it is perceived to be a weak and doesn't secure members properly. The first obvious limitation is that these measures leave policy formulation and implementation to the individual states which is not coordinated at supranational level, which means there is no strategy how to approach the problem supranationally. *The EU does not have the authority to set guidelines for research and development activities and investments in networks. Nor does it have taxation powers which would allow it to discourage certain activities and to finance more efficient and sustainable alternatives. Larger policy issues, such as the general direction of Europe's energy sector and security of supply, are mainly addressed in declaratory or analytical policy statements (such as the Strategic Energy Reviews), but not in hard rules*⁸¹.

A third limitation is that there are major 'gaps' in their specific coverage. These measures only concern fuels and not networks. The Gas 'SOS' Directive does not deal with Liquefied Natural

⁷⁹ Jacques J. De Jong and Ed Weeda, Europe. *The EU and its 2050 Energy Storylines*, Clingendael, 2007, p. 28

⁸⁰ D. Lesage, Thijs Van de Graaf, Kirsten Westphal . *Global Energy Governance in a Multipolar world*, 2010, p. 94

⁸¹ Jacques J. De Jong and Ed Weeda, Europe. *The EU and its 2050 Energy Storylines*. 2007. p. 112

*Gas (LNG), for example. In this regard, the legal instruments neither take into account the changing nature of the European energy markets nor the development towards a more diversified production of energy: they remain focused on yesterday's forms of energy.*⁸².

One more problem that emerges from EU part is lack of promotion of private investment. This situation is not favorable to Lithuania and other small states that are already having problems with allocation of resources and incentive of investors.

Another good example of incoherent policy is nuclear situation. The latest EU meeting showed different attitudes and expectations from this sector. Germany is in big debates regarding future nuclear policy, Austria, Ireland and Denmark are against nuclear energy, while France and Sweden consumptions is greatly dependent on nuclear energy. Belgium is also planning to refuse nuclear energy. Lithuania, as well as other posovietic countries, still is dealing with its energy relicts. If the countries will refuse nuclear energy that means it will need to import electrical energy. This first would question if the Lisbon treaty was not violated as it says that any national decision should be taken considered with other EU members, in order to secure functioning of energy market and general energy security. This again proves that at least in nuclear energy field to common consensus in policies is unlikely possible.

One more very important fact that mirrors in these documents is national sovereignty, which grounding on all facts will tend to remain.

While there was and is some progress in internal matters in regards to energy, the external situation is bad. As a big regional actor EU is not playing any role in global energy matters, not mentioning participation in international organizations. *Although the Lisbon Treaty moderately improved the EU's external representation. Nor does the European Union have any significant impact on strategic issues involving EU energy imports. Probably it is obvious when EU is not capable to deal and organize it internal market and comprehensive common policies that automatically become a big obstacle to common foreign policy. Development in internal matters Overall, Europe lacks international credibility.*⁸³ As J. J. De Jong and E. Weeda states: *Given that has always had difficulties in the past in combining a strong internal economic policy*

⁸² Sami Andoura, Leigh Hancher and Marc Van Der Woude. *Towards a European Energy Community: A Policy Proposal, Policy*. 2009 p.43

⁸³ Ibid., p.11

*agenda with a coherent and effective external approach, the energy issue is not unique.*⁸⁴ They think: *The world at large has developed in a direction where governments are largely invisible in energy matter, but in a more indirect and subtle way, they are heavily involved in securing their external energy supplies. In Europe this goes for 'government 'at both EU and national level. More and more governments tend to openly tolerate various degrees of bilaterism in energy trades and relations, where foreign policy issues have become strong components. Governments allow their energy industries to engage in what is, at times, and open scramble for oil and gas supplies, resulting in heavy upward and accelerating pressures on oil and therefore energy process.*⁸⁵

The above described realities disclose that compliance by member states and major players is an issue; additionally it brings us back to first thing that was tried to analyze- perception of energy security. Discrepant understanding of energy security, logically leads to weak and inconsistent Energy policy definition. Indeed, the concept of energy and energy policy varies over time and differ from one country to another. Such variation depends to a large extent on the state of technological development and local conditions and everyone knows that member states are at variance. These differences are important to bear in mind when developing energy policies. Policy tools and measures may lose their rationale and should therefore be reconsidered on a regular basis.

Regrettably the scope of this paper didn't let me to investigate even deeper EU internal matters (separate "energy" groups in EU).

EU Central Asia Strategy

Despite discrepancies and different needs EU acknowledges the need to diversify energy imports and released Central Asia Strategy. The strategy is based on strategically important intersection between the two continents: The Central Asian States of Kazakhstan, the Kyrgyz Republic, Tajikistan, Turkmenistan and Uzbekistan and EU. It aims to conduct a regular energy dialogue with Central Asian States: *EU efforts to strengthen local energy markets will help to improve investment conditions, increase energy production and efficiency in Central Asia and diversify*

⁸⁴ Jacques J. De Jong and Ed Weeda, Europe. *The EU and its 2050 Energy Storylines*. 2007. P.19

⁸⁵ Ibid. p.34

*energy supply and distribution in the region.*⁸⁶. This strategy means a lot for many member states and gives hope. One more limitation is just to give a very passing overview of this strategy, and to spot advantages and disadvantages of it.

This strategy was launched after 2004 Energy conference in Baku. It states that EU will support the exploration of new oil, gas and hydro-power resources and the upgrading of the existing energy infrastructure, development of additional pipeline routes and energy transportation networks. It will also contribute to regional energy security and cooperation, and widen export markets for Central Asian producers. The EU will promote the creation of an integrated Central Asian energy market and will support public-private partnerships which encourage EU investment. Based on the objectives laid down in the Baku Initiative the EU will focus cooperation with Central Asian States in particular on the following matters: energy market, addressing issues of energy exports/imports and transit, support and enhancement of technological cooperation between the EU and the Central Asian in the energy sector, Attraction of investment towards energy projects of common and regional interest, Support the rehabilitation of existing pipelines and the construction of new pipelines And electricity transportation networks inside the region and towards Europe and etc. The main pillar of this strategy is Southern gas transport corridor.

From the first glance it looks that this strategy covers a lot of fields and sounds promising. But many scholars notes many gaps and criticize unclear steps. R. Gotz marks: *since the role of the energy resources of Azerbaijan and Georgia, for various transport corridor options are inseparable from this question, the southern Caucasus area also has to be taken into account. The energy and transport cooperation of the EU with South Caucasian republics of Azerbaijan, Armenia and Georgia is not touched in the Central Asia Strategy itself, but is the subject of other EU programs such as the Black Sea Synergy, the Baku Initiative and the Eastern Partnership.*⁸⁷

This strategy is based on Baku initiative and energy is just a part of bunch of aims.

The same as in Baku Initiative, though there are named countries for partnership, the strategy doesn't clearly indicate the real suppliers and clear steps and actors to achieve wanted aims. In spite of EU being active in the region, the strategy it doesn't seem very likely and it is automatically slowing down further steps for EU as well as Lithuania.

⁸⁶ The EU and Central Asia: Strategy for a New Partnership. p.3

⁸⁷ Roland Gotz., *The southern gas transport corridor*. 2011. P.150-151

3.3 Energy situation in Central Asia

This chapter intends to look at situation in Central Asia. It is important and needed because it will reveal some obstacles that are hindering and might hinder in developing EU as well as Lithuania's bilateral relations regarding energy supplies.

Caspian region was always important due to its location and especially natural resources. While demands for energy are increasing, along with it, Caspian region regains importance. Caspian benefits are well known for EU, Russia and of course Lithuania. *The Caspian Sea and Central Asian resources have a substantial role to play in the future oil supplies of the world. It is estimated that the Caspian will provide at least 10 per cent of the expected increased production capacity. Based on the assumption that current oil prices will remain stable, the oil production from the Caspian may reach 5 million bpd by 2020.*⁸⁸

The situation in the countries in terms of resources varies. Energy evidently is crucial for the development of the Central Asian as well as the South Caucasian republics. Azerbaijan, Kazakhstan and Turkmenistan exports gas and oil, Uzbekistan is self-sufficiency in energy, whereas Armenia, Georgia, the Kyrgyz Republic and Tajikistan need energy imports.

Generally speaking this region faces some obstacles. As a first one could be named an Azeri-Turkmen dispute over the division of the Caspian shelf. Second EU and Central Asia cooperation receives big opposition of Russia, what is more Russia not only oppose that but also have a big influence in many branches of pipelines and as in posovietic countries they are still influenced politically by Kremlin. Iran is also not really willing to be part of this cooperation and be just a transiting country as it has big resources as well and would benefit much more from exporting them. And finally, oil and gas fields in some parts of the region- most notably in Uzbekistan- are nearly exhausted. In other parts-mainly in Kazakhstan and Turkmenistan- they are partly unexplored and underdeveloped.

3.3.1 Turkmenistan

After 2006 when Gurbanguly Berdymukhammedov became a president, he started pursuing export diversification politics and gas export. He showed interest in EU partnership. However energy politics doesn't limit with EU, since 2010 Turkmenistan is commissioning a gas pipeline

⁸⁸ Mamuka Tsereteli. *Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region*. 2008,p 22-23

to China. The good thing, the country is no longer dependent on Russia, once the sole recipient. Turkmenistan poses the most significant natural gas deposits. *About 70% of the country's territory has the potential to produce gas and these increases to 85% if including its offshore deposits in the Caspian Sea. Russian specialists estimate Turkmenistan's gas potential at 4 trillion - 15.5 trillion cubic meters. While Turkmenistan claims it has at least 23 trillion cubic meters of gas, and maybe up to 44 trillion cubic meters, Western experts estimate the numbers to be of a much lower range. The natural gas reserves in Uzbekistan exceed 1 trillion cubic meters, and in Kazakhstan estimates are of around 2 trillion cubic meters. Geographically, these deposits are much closer to European markets than many deposits Russia intends to use for future supply to European markets.*⁸⁹ If Turkmenistan would act rationally he could perfectly take advantage of this strategically possession.

3.3.2 Azerbaijan

*Azerbaijan's proven crude oil reserves are estimated at 7 billion barrels in January 2012. The country's largest hydrocarbon basins are located offshore in the Caspian Sea, particularly the Azeri Chirag Guneshli (ACG) field, which accounted for nearly 80 per cent of Azerbaijan's total oil output in 2010 According to the OGI, Azerbaijan has proven natural gas reserves of roughly 30 trillion cubic feet (Tcf) as of January 2011*⁹⁰. Azerbaijan has confrontations not only with Turkmenistan, but also with Iran, which strategically can cause problems while transporting Azeri gas and oil to Europe. The BTC pipeline is supplied (about 80 per cent) of Azerbaijan's oil. Azerbaijan is participating in many other pipeline projects as supplies oil and gas via them, so its position in negotiation with EU greatly increased.

3.3.3 Kazakhstan

Kazakhstan lately became one of the biggest energy producers. *According to a BP statistical review, the realistic plans are to increase production levels to almost 3.3 million bbl. /d by 2020.*⁹¹ From all Central Asian countries Kazakhstan's position towards cooperation is the most clear: *Kazakhstan's desire to move away from the role of crude oil exporter to that of a refiner*

⁸⁹ Mamuka Tsereteli. *Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region*. 2008, p 40-41

⁹⁰ EIA: <http://www.eia.gov/cabs/azerbaijan/Full.html>

⁹¹ Mamuka Tsereteli. *Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region*. 2008, p38-39

*and direct supplier of products to European markets is strategically and economically justified*⁹². This country already made some significant steps towards Europe by acquiring 75% stake in Romania's privately owned Rompetrol Group. It was tried to do the same with Lithuania and Czech Republic. The deal failed because Russia opposed and countries governments were cautious in terms of possible Russia's influence. Generally speaking Kazakhstan exports probably the most oil and gas, but using Russia's land. It becomes obvious that politically and economically it depends a lot on Russia influence which is a threat for EU and Lithuania. Kazakhstan needs to make sure that it is perceived as an independent and strong player in energy markets. Kazakhstan as a partner would be important to Lithuania as he is supplying BTC pipeline, and this project might be promising to Lithuania.

3.3.4 Georgia and Armenia

It is informative to give an overview of the role of these countries. The lack of regional cooperation among the countries added energy vulnerability of the region. Georgia and Armenia are transiting countries and importers of Russian oil and gas, which is the sole provider of natural gas for Georgia and Armenia. By controlling its major gas consumers, Russia will try to prevent other natural gas producers in the Caspian region from entering the Georgian and Armenian markets. Armenia, Georgia as well as Azerbaijan also has a weak infrastructure which hinders to economic development. These disadvantages might hamper transportation of Kazakh and Azeri oil and gas. As all posovietic countries The South Caucasus used to be part of the Soviet power grid. But if these countries would pull themselves together they are capable to have independent from Russia system. If Armenia and Azerbaijan would solve old political conflict it would improve energy situation for Georgia as well. *The reintegration of the electricity networks in the South Caucasus, and possibly with the Turkish network, would create favorable conditions for investing in upgrades and rehabilitation, and would substantially strengthen the regional energy security.* It seems that small states theory could be applied explaining these countries. If one would remember the part of administration, it becomes clear that bad internal management of energy affairs deters further cooperation steps. Armenia and Georgia are importers of Azeri and Russian oil and gas. The new pipeline projects would strengthen these countries in two ways.

⁹² Mamuka Tsereteli. *Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region*. 2008. p.40

Would diversify their own imports and possible import from Iran would lessen dependency from Russia and secondly this might be transported via Caspian ports and rails to Europe. (Ukraine and later i.e. Lithuania via rail). *The future energy security of the region will be closely dependent on the cooperation of all three countries with Turkey, which would go beyond the pipeline projects. This approach should be based on three elements: a creditworthy Turkish electricity market increased gas-based generation capacities in Azerbaijan, and more hydro generation facilities in Georgia. Russia and Armenia could possibly become part of this system as well.*⁹³ As one can see, the situation of these countries indirectly might affect transportation of energy goods to Europe.

These all mentioned post-sovietic countries have a similar if not the same situation with energy infrastructure. After collapse of Soviet Union these countries didn't cooperate much. Additionally Russia is trying to reconstitute parts of the former pipeline, maintain and control already existing infrastructure. *At the same time there exists only a slow level of regional cooperation within the energy sectors of the Caspian Sea Region. So the advantages of regional cooperation are widely unused.*⁹⁴

Roland Gotz *thinks that Turkmenistan, Iran and other Middle Eastern states cannot be counted on to supply major quantities of gas. Also the willingness of Azerbaijan and Iran to serve as transit countries for Central Asian gas should not be taken for granted.*⁹⁵ Turkey's position is also not very clear. In the beginning country was willing to be a transit country when was negotiating admission to EU, but when negotiation enthusiasm waned, Turkey tries to act as an independent gas hub.

The same author notes that Central Asian countries *fall within the strategic orbit of several powers of different size, capability and ambition. Some of these powers had already exploited the Caspian's (non-oil) resources for economic gain. Others, in particular the new republics (Azerbaijan, Kazakhstan and Turkmenistan), regarded the Caspian as their only waterway and an important source of food and related products. The two powers in question were of course*

⁹³ Mamuka Tseretel. *Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region*. 2008, p. 83-86

⁹⁴ Roland Gotz, *The southern gas transport corridor*. 2010. p. 148-149

⁹⁵ Ibid., p. 159

*Iran and Russia, which dominated the southern and northern shores of the Caspian Sea respectively.*⁹⁶ I would add one more emerging power- China. It's fastly increasing demands needs to be satisfied and these countries are right here, compare to Middle East or North Africa. China already signed few contracts and where supporting energy development projects.

*K. Oskarsson in her article gives very interesting fact: Russia has for many years purchased Central Asian (Kazakh, Turkmen and to a lesser degree Uzbek) gas at low prices and sold it to high-paying European consumers as "Russian gas." This information gives explanation why Russia tries to maintain its power over these countries. To continue this lucrative and politically effective strategy, Gazprom desperately needs continued supplies of Central Asian gas (primarily from Turkmenistan) in order to meet its supply commitments. It also needs to make sure no Azerbaijani gas could reach European markets outside of its control.*⁹⁷ Moreover, before the global recession which depressed gas demand in Europe, Russia had already depended on supplies of cheaper gas from Turkmenistan to cover its domestic demand foreign export commitments.⁹⁸ This very important fact about Russia dependency could be used as a tool in "energy game".

3.3.5 Ukraine and Belarus

When considering Central Asia states for energy products transportation, Ukraine starts playing a very important role and that is why it „deserves “a brief analysis. Via Ukraine EU can access East and Russia use its land for oil transportation. Energy is the key strategic factor that ultimately raises the importance of Ukraine for Europe. Russia-Ukraine dispute proved that. *With its independent policies, it also serves as both an important geopolitical force and balance to Russia's influence in the region.*⁹⁹ Ukraine's political situation or to be more precise stability affects Europe's stability and security. Unfortunately so far Ukraine is weak economically, plus has a big dependence on Russia resources, weak institutional base and bad investment and business climate.

⁹⁶ Roland Gotz, *The southern gas transport corridor*. 2010. P. 65

⁹⁷ Zeno Baran. *Lithuanian Energy Security: Challenges and Choices*, 2006 p.25

⁹⁸ Journal of Energy Security. *February Cold Wave Snaps EU Russia Gas Relations* 2012 published on http://www.ensec.org/index.php?option=com_content&view=article&id=345:february-cold-wave-snaps-eu-russia-gas-relations&catid=123:content&Itemid=389

⁹⁹ Mamuka Tsereteli. *Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region*. 2008, p53

Ukraine is a great corridor to export Central Asia oil and gas to Europe as well as it is still an important market access point for Russia since the majority of oil transited via Ukraine is Russian. The southern part (Odessa) is the main hub in transporting Russian oil and Kazakhstan's and Turkmenistan's oil and gas. *The expected commission of the Yama-Europe pipeline and the planned North European pipeline will reduce Russia's reliance on Ukraine, thus concurrently reducing Ukraine's potential counter-leverage as the key transit country for Russian gas*¹⁰⁰.

Belarus located in good position: between Russia and Europe. It goes without saying that Belarus is an important transit country especially for Russia. It has quite well (though Sovietic) energy infrastructure but are heavily dependent on imports (almost all from Russia). Belarus would be a key country after Ukraine and Poland to access Central Asia gas and oil as it borders with Lithuania. Products received in BTC could be easily transported via Belarus. Inopportunately everything would be too easy because Belarus still falls under Russia's influence and Kremlin would try to impede this plan. Another problem is so far polemic and not fully understandable bilateral relationship between Lithuania and Belarus. However if Lithuania which is considered (by many) the one who "leads Belarus to Europe" would continue this politics and would made an energy coalition (one needs to remember that one pipeline comes from Belarus) and Belarus would use existing energy network to negotiate with Russia on various energy related issues, plus including Ukraine, this coalition would benefit all three parties.

Before last analysis part the author would like to sum up this part using ideas from small states theory. Basing on the short analysis and facts, probably Central Asian countries as well as Belarus with Ukraine could be called small states in terms of their stance in International relations. All posovietic countries to lesser or bigger extend are still coping with soviet relicts (Russia's influence, corruption and etc.) which makes them week and so far none of them can't act as independent supplier or transit country (Belarus and Ukraine)

¹⁰⁰M. Tsereteli. *Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region*. 2008, .55-56

3.4 Energy projects

There are several possibilities for EU and Lithuania to diversify energy supplies. In previous chapter it is written about situation and existing problems of all four parties (Lithuania, EU, Russia, Central Asia countries). Short description of the projects will give a better insight of realities and will reveal last details for possibilities.

3.4.1 Electricity links

To begin with, electricity causes fewer problems. Baltic States signed a Memorandum, where they emphasized the importance of Baltic Energy Market Interconnection Plan (BEMIP) meaning integration into the wider energy grid. In 2010 “BaltPool” was created and enabled free market operations in Lithuania and other Baltic countries. This project is considered to be a big step forward for common electricity market. The most realistic plan is the link with Sweden- ‘NordBalt’ which by 2015 will connect Klaipeda (Lithuania’s Port) and Swedish city Nibru. This project has started physically. There should not be a step back. Besides this, in January 2007, the three Baltic States’ energy companies completed the 350 MW Estlink project, uniting the Baltic electricity systems with the Finnish one.

The project „LitPol“ started in 2008, when the company „LitPol Link“ was established. It will link Alytus (Lithuania) and Elka (Poland) with modern electricity line. In 2012 February, Presidents of Lithuania and Poland met and stressed the importance of this link. All the works should be finished until 2013. Lithuania already has all necessary permissions, just Poland is missing few. The launch is expected in 2015. The only minus in this project were slow Poland’s actions. In Lithuania some politicians doubts of necessity of LitPol Link. K. Dauksys¹⁰¹ says it needs a good calculation and assessment what electricity market would be when all links will be finished. He is afraid that Lithuania will connect to common market and will be a transit country for cheaper electricity for Russia, which will be bought in the West and we would use self-produced expensive electricity. One more obstacle in this project might be Poland’s indifference. It looks that Lithuania is so far really willing to have a link; however Poland doesn’t show much initiative.

¹⁰¹ Member of Lithuanian Parliament. He is from one of influential oppositions which might take over the lead after autumn parliament election.

Lithuania's Nuclear's plant project is probably the most discussed one in Lithuania at the moment. There are two flanks: one argues that this plant is needed and the others argue and criticize the logics of it, giving arguments such as real price, safety, environmental problems and etc. Despite opposition so far this project is moving forward. Till now, all technical preparatory works were done. It was even given for consideration to European Commission. IAEA confirmed that the place is appropriate for the plant. Lithuania found a potential engineer partner („Exelon Nuclear Partners“) and a strategic investor. In the 2012 spring session, Lithuania's Parliament should issue the permission to build the plant. However, after new Parliament elections, the opposition might take advantage of the situation (doubts from regional partners, unclear deadlines, expenditures, relations with Russia and Belarus, political and economic matters and etc.) and detain this project at any stage.

So far the situation in electricity projects and plans are stable and the tendency should remain unaltered, maybe except new nuclear plant. Regardless this fact if one would connect both theories and analysis part would sum up that Lithuania at least in electricity sector realizes its situation, opportunities and purposefully “playing electricity game”. On the other hand electricity situation is more advantageous since all needed connections are “around”. It could be solved within EU borders and it automatically lessens the burden.

3.4.2 Oil and gas projects

Contrary to electricity, as it was noted, oil and gas strategies must step out the borders of EU and requires twofold if not threefold approach to solution. As game theory says it must be rationally considered and foreseen, with whom, how and how much it would cost (money and time wise).

To start with, there would be more possibilities with LNG, but at the moment there are no LNG import facilities in or around the Baltic States. Poland has taken some practical steps in this direction by implementing an LNG terminal construction project in Swinoujscie and has already signed a deal with Qatar's gas Operating Company to deliver about 1.4 bcm of gas through the terminal starting in 2014. In order to receive gas, new pipeline would have to be built from Poland to Lithuania. In 2011 Lithuania's Government acknowledged the importance of LNG project and company „Klaipėdos nafta“ was assigned to take a lead. All preparatory works are done. In 2012 it is planned to sign a contract with Norwegian company „Høegh LNG“ regarding

LNG rent. What is missing is to solve the question of Infrastructure and who will be the supplier (as of Qatar's gas possibilities was not considered). It is expected that by 2014 this LNG will be working. LNG could possibly become part of CEE international interconnected liquid gas market, which was discussed in 2010 by Croatia, Serbia Slovenia and Romania. *To facilitate this project, the EU earmarked €30 million to co-finance the North-South gas corridor which will not only interconnect all the CEE countries but will also inject liquidity into these isolated markets by linking them to planned LNG terminals in Poland and Croatia; thereby giving them access to global, spot-priced LNG delivered from all around the world.*¹⁰² This project would mean a lot for countries who are "suffering from Russia's gas dependency. In order LNG to function Lithuania must have suppliers. That is why Lithuania has to consider all existing and future projects that would bring gas and oil to Europe.

Lithuania supports Nabucco and White stream projects. It is worth to go deeper to these projects and to see what real benefit Lithuania would get. Many think that according to initial plans both Nabucco and White Stream will hardly reach consumers in the Baltic States. However it could be spotted indirect benefits from these projects. First it would automatically diversify European market and if Lithuania would approach to all interconnections in certain years it could be linked with these as there would be „more gas „in Europe. For Lithuania this could make it possible to re-import so called 'surplus gas' through Poland, Germany, Norway, Qatar (in the case that the LNG terminal in Poland is built) or even Russia. Therefore, the first step to Lithuania towards Caspian gas is to implement the gas interconnection projects, which would unite Estonia and Finland, and Lithuania and Poland, as well as to quicken the Baltic Interconnector project, which would allow the import of gas from Norway via Finland. LNG which is planned to be built could be used to supply oil from Qatar, Nigeria or the Barents Sea. An alternative possibility is to use small LNG tankers, which sell on the LNG brought to the existing terminals in Western Europe (Ramboll Group 2009).

Another Baku-Tbilisi-Ceyhan (BTC) pipeline connects the Caspian and Mediterranean seas bringing Caspian oil to Europe and with no Russia's intervention. In the beginning EU due to expensive constructions was not willing to support it, but with strong cooperation among

¹⁰² Journal of Energy Security. February Cold Wave Snaps EU Russia Gas Relations
2012 published on http://www.ensec.org/index.php?option=com_content&view=article&id=345:february-cold-wave-snaps-eu-russia-gas-relations&catid=123:content&Itemid=389

Azerbaijan, Georgia and Turkey, and with the help of the US, BTC was completed; it began operating in the summer of 2006. This pipeline allows to ship Azerbaijani light crude to most of European refineries. Beginning in Azerbaijan, the pipeline crosses Georgia and ends at the Turkish port of Ceyhan. This first non-Russian pipeline stands as proof that oil from Central Asia can be transited through alternative routes. *Now in operation, the BTC changes the entire political and economic security landscape of the region, providing different dynamics, consequences and implications that we may not yet fully recognize. "Because of its role as a centerpiece of the evolving east-west transportation and communications artery through the South Caucasus"*¹⁰³ This project is an example of good cooperation between young states, including Azerbaijan, Georgia and Turkey. In 2006 Kazakhstan committed to be part of the suppliers. And finally in 2010 Turkmenistan sign an agreement to transport its crude oil. Talking about Lithuania's chances ever connect to this pipeline is not worth considering, but this project represents game theory's idea about cooperation, rationality while choosing the move, well foreseen strategy and on top of that evidences small states capabilities.

Few more projects which would bring Caspian oil and gas are basically unlikely to reach Lithuania, but as this paper intends to reveal not only Lithuania's energy security but EU's as well, the reader needs to know what alternatives and options has other EU members as it indirectly affects Lithuania's options in terms of who, according to theory, would choose what first (EU would pull itself together and will get more oil from Caspian, or separate members of the union will act alone) or and will assure their energy safety. It also indicates where, as suppliers Caspian countries can provide their energy, for Lithuania it would mean that it needs to act accordingly and try supporting one project over another in order to "pull" oil and gas closer to it needs and finding most reasonable equilibrium.

In 2002 m. Austria, Turkey, Hungary, Bulgaria, and Rumania initiated projected named „Nabucco“ which would provide natural gases from Southern Caucasus and Central Asia excluding Russia. According to first plan, Nabucco have to been launched in 2010-2011, later was postponed to 2014 and finally to 2017 m. The main problem that this project faces is unclear suppliers and finance resources. The potential gas providers Turkmenistan, Azerbaijan, Iran, Iraq, Egypt and even Uzbekistan are interested in selling gas to Europe, but they are delaying to

¹⁰³ Frederick Starr, Svante Cornell, Eds, *The Baku-Tbilisi-Ceyhan Pipeline: Oil Window to the West*. 2006. p. 25.

deliver their promises due to their reasons. The potential gas supplier could be Turkmenistan; however absence of pipeline under the Caspian sea hinders it. A dispute among Russia, Kazakhstan, Azerbaijan, Iran and Turkmenistan because of territorial Caspian waters is one more obstacle. If Iran would agree to be a transit country of Turkmenistan gas, the country could supply 40 mlrd. kub. m. to Europe. Another option could be Azerbaijan. Unfortunately, so far country's leader confirmed in Davos that Azerbaijan does not give priority to any of the competing projects. Turkey position is not very clear as well as Germany, Italy and France has other import options, so for them the project is not so crucial. The solutions can't be find, because the involved parties can't reach consensus how to combine this project with other natural gas supply initiatives such as South Stream as well as others South Corridors which are supported by EU members. If one day this project will be finally implemented the author assumes (not alike earlier expressed opinion) it could be with extended pipelines from Romania, via Ukraine and Belarus transported to Lithuania. The question just would be either to choose this or Ukraine- Odesa- Brodey. The option would probably depend on transiting countries (Ukraine, Belarus) their internal demands and infrastructure location conditions which would call for deeper investigation.

The initiator of South Stream project was Turkey and Italy. The Project began in 2007. Later on Greece, Slovenia joined and many more supporters who saw the possible benefit. Bulgaria, Serbia, Hungary, Greece, Slovenia, Croatia, and Austria eagerly signed agreements with Gazprom on the South Stream pipeline whose gas will transit their territories. Moreover, some of the CEE including the Czech Republic, Hungary, Slovakia, and Poland as well as Austria, Bosnia and Herzegovina, Bulgaria showed big interest as well. It needs to be empathized that this project is seemed as „enemy „for Nabucco Project as Russia would transport gases from Central Asia too. This project will definitely bring more gas to Europe, especially to central, but Gazprom will control the entire gas supply, at least to the Balkans and the CEE region.

A third project who would transport Azerbaijani gas to European markets without using the Russian system is called Georgia-Ukraine-European Union (GUEU) pipeline or „White stream“. Another variant being considered under this moniker is that of an underwater pipeline through the Black Sea from Georgia to Romania. GUEU would help speed up investments in Caspian natural gas fields by offering increased access to export markets. Lithuania's prospective gas pipeline connection with Poland would enable it to benefit from GUEU as well. *Though the first*

*phase of the pipeline will only have a capacity of only 8 bcm, it could provide some diversification in the medium term.*¹⁰⁴ This underwater pipeline would have the possibility of an extension to Poland. If it would reach Lithuania's neighbor that probably would not be very difficult to negotiate for more gas from Caspian countries and construct small branch Poland-Lithuania. Not needs to be said that it would reduce dependency from Russia's gas.

The planned Trans-Caspian Gas faces some obstacles and construction has not yet started. First the same Azeri-Turkmen dispute, the opposition of Russia and Iran investment, uncertainty about funding and unclear prospects for the Nabucco pipeline, which would receive most of the gas from the Trans-Caspian pipeline. The Trans-Caspian gas pipeline (TCGP) will run along the bottom of the Caspian Sea and connect a compressor station in Turkmenbashi with the Sangachal terminal near Baku. Once constructed, the pipeline will connect Turkmenistan gas fields with the Baku-Tbilisi- Erzurum (BTE) pipeline, thus enabling Turkmenistan to deliver resources for the Nabucco pipeline. So far, however, even preparatory work for the TCGP has not begun. Meanwhile, the chances for the TCGP are being raised with the construction of the East-West gas pipeline. The building of the pipeline was started in May 2010 to connect the deposits located in the eastern part of Turkmenistan with the Caspian Sea coast. *It is also questionable, however, whether Azerbaijan and Iran are prepared to allow large quantities of gas to be piped through their territories, since both countries regard themselves as suppliers states, not transit states. The possible contribution of Azerbaijan and the Central Asian suppliers (Turkmenistan, Uzbekistan and Kazakhstan) may turn out to be not enough to use the Nabucco pipeline to full capacity. Therefore, the Nabucco pipeline consortium hopes for gas deliveries into the Southern gas corridor not only from the Caspian region (Azerbaijan, Turkmenistan and Kazakhstan) but also from Iran, Iraq, UAE and Egypt, and even from Russia.*¹⁰⁵ This project is most uncertain one, but exposes that countries are trying to increase options of transportation routes.

The idea of this Ukraine-Odesa-Brody project is not so new, but as all projects, it faced some disturbances. The aim of it is to import Kazakh oil via Ukraine to Poland. The pipeline was

¹⁰⁴ Zeno Baran. Lithuanian Energy Security: Challenges and Choices. 2006, p. 28

¹⁰⁵ Roland Gotz. *The southern gas transport*, 2010. P. 156

completed in 2002 and links two Ukrainian cities: the Black Sea port of Odessa and the western city of Brody, near the Polish border. *However, political pressure from Moscow soon compelled the Caspian Sea's main oil-producing state, Kazakhstan (and companies operating there), to send its exports via Russian transportation routes. Once it became apparent that Caspian oil was unavailable, interest in the extension to Poland diminished, and the pipeline remained unused. Hoping to recoup its losses, the Ukrainian government eventually agreed to reverse the flow of the Odessa-Brody line.*¹⁰⁶ In 2005 Ukrainian President Viktor Yushchenko called for re-reversal. Same year, the EU, after a long delay, finally took a step and announced its decision to support the Ukrainian government's intention to use the Odessa-Brody oil pipeline in a northward direction, and supported an extension to Plock, Poland. The project is included in the EU's INOGATE (International Oil and Gas Transport to Europe) program as part of the Black Sea-Ukraine-EU energy corridor, which is also supported by the Ukrainian government's Eurasian Oil Transport Corridor (EOTC) initiative. Meanwhile, Russian oil companies were "reverse-using" the pipeline in a southerly direction, for Russian oil to reach non-European markets, frustrating Ukraine's and the EU's original intentions to bring Caspian oil northward to the EU markets. At present, the pipeline is operating in reverse mode, with oil flowing from Brody to Odessa. The potential benefits (economic and political) of this project could be enough to overcome the price tag. Many Companies have expressed interest. If this project is completed, oil could flow without crossing Russia. For Lithuania, it gives huge potential. Even if an oil conduit with Poland is not established, tankers departing from the Polish port of can transport oil to Lithuania's oil terminal at Būtingė.

One more alternative that was introduced is „Amber Project“. It would have been a new pipeline to transport gas to Europe through the Baltic States, avoiding Belarus. This Project was rejected by Russia in 2008: *"From an economic point of view, the project is very complicated and much more costly than Nord Stream, and the number of transit countries would increase. It would be neither very profitable nor acceptable to us," Sergei Prikhodko said.*¹⁰⁷ Not only Russia put aside this Project, but EU surprised many by supporting Nord Stream over Amber Project. EU many times emphasized common gas market and especially Baltic States in it. This Project would have been a perfect solution to this problem. Former Lithuanian president Valdas Adamkus has

¹⁰⁶ Zeno Baran, *Lithuanian Energy Security: Challenges and Choices*, 2006, p.30

¹⁰⁷ Rianovasti. (2008). *Amber project not alternative to Nord Stream - Kremlin aide.*Published on: <http://www.en.rian.ru/business/20080207/98671760.html>-

expressed his surprise, saying, “*I believe I can understand the Russian position, but I can’t understand Germany’s position.*”¹⁰⁸ However this didn’t end with this rejection. In 2010 Lithuania and Poland sign an agreement still build a pipeline.

This section of the paper showcases that there are variety of ways to export and import oil and gas for all parties. Despite many hinders that are emerging for EU, Lithuania and Caspian countries, seems like everyone has at least few options (alternatives). If one recalls a theory it says that strategic interaction should guide players towards the “most reasonable” equilibrium upon which they should focus. Lithuania is slowly moving towards it. At least quite well working electricity sector is a big step forward. Caspian countries are a bit complicated case. First as they differ as countries (in terms of resources, internal politics) and one more than other are showing interest and supply capabilities for European countries. Second it might be easily “distracted” by Russia and China. On the other hand having “two equilibriums” sometimes makes the players to be stuck. It is perfectly applicable for EU strategies or stance it takes. In this context it doesn’t seem that having too equilibriums are working for EU as a unit. The main powers try to present and act for their own and at the same time lead EU strategies. It seems that EU are trying to invest and use Central Asia resources and frequently leading powers are communicating internally, but so far they decide independently on what to buy and from where. This could be an explanation why an EU Central Asia strategy doesn’t move forward. Or the same idea can be put in words of game theory about Noncooperation. EU members become cooperative just when it gives benefit. Is it rational move? Yes and no. From states perspective, probably yes, as it’s natural to secure first yourself, but no, as you are tightly interrelated with others from union and one’s insecurity might easily affect you.

It happens, that actor’s lack of knowledge of certain thing and consequently it takes actions that would give uncertain consequences. It could be illustrated with Turkey’s example. EU at the moment it is hard to say what position will take Turkey as she is very important for many projects. Lithuania doesn’t know, or basing on historical experience how EU will act. In an extensive game with perfect information, every player is at any point aware of the previous choices of all other players. Furthermore, only one player moves at a time, so that there are no

¹⁰⁸ *EU Should Unite Over Russia’s Energy Policy: Lithuanian President. Agence France-Presse. May 4,2006*

simultaneous moves. In this it means that cooperation between parties is slow because they move and show interest not at the same time.

The theory put emphasis on certainty, which means that actors are sure about the choice environment and possible consequences. All players they know about existing choices EU, Lithuania and Russia and Central Asian countries. *Thus, certainty means only that there is no analytical difference between assuming that political actors choose actions based on the desired outcomes which result from those actions, or that they choose those outcomes directly.* But it happens, that actor's lack of knowledge of certain thing and consequently it takes actions that would give uncertain consequences.

Talking about strategies or further steps that might be made the idea about second move of second player can give a suggestion about better option as the second player knows the game will end after her move, she can safely select the action which is best for her. According to that it would result that EU was the first one to go for Central Asia gas and oil as at that time Lithuania was very dependent on Russia but also didn't felt such a need to diversify and plus was not strong enough to act alone or collaborate with similar problem having country. So it could be assumed that EU made a step first and proved that it is beneficial to go for Caspian region. Now Lithuania as EU member could base her actions on Central Asia strategy and other foundations that were laid for EU Caspian region cooperation. As for Caspian countries new global (I will not exaggerate calling it global as suppliers they cover Europe and Asia) challenges and risks for these countries indicate that regional cooperation is crucial.

As I mentioned before economical side is very important especially in Lithuania as there are many gaps in the budget. The oil and gas from the Caspian region likely believable would be cheaper than Russia's, but one fact can't be forgotten. Lithuania already is paying a lot, maybe too much (compare to other Russia's energy importers) so there is always a risk they could increase them as Kremlin will want to punish Lithuania. In this context it seems that to secure at least stable prices with Caspian exporters would be a good option.

CONCLUSIONS

The aim of this paper was to analyze possible alternatives for Lithuania bearing in mind physical resources and actions of others that constrains its steps in increasing energy security. The country is lacking alternative suppliers and depends on Russia's energy politics. The main focus was to analyze Lithuania in the EU context, as all energy problems one way or another are interconnected and are not only economical but in many aspects very political. As a small state Lithuania is active inside the EU, especially when it comes to matters concerning energy, but this paper proved that EU is very influential in terms of lack of support of suggested Lithuania's and other Baltic States and Poland's energy plans and holds it back. To negotiate with Russia, Lithuania needs EU's support, but analyzed facts showed that leading EU countries will tend to maintain their national good relations with Russia and hardly will make a step to ruin them. On top of that so far all existing treaties and documents are not serving as they supposed to. Energy projects that are "under" EU name in fact are supported more by separate states or companies but not common union budget. This paper also proved that EU due to its different needs and chaotic politics are incapable or are not willing to protect its smaller states. The EU member states are significantly divided over how to deal with energy risks, what should be the priorities of the EU internal and external energy policy dimensions. Realizing that and many more discussed issues and summing up mentioned ideas it is concluded that EU limits Lithuania to great extent. Another conclusion to sub question about small states capabilities, could be drawn that Lithuania has some advantages. It has a very well developed energy infrastructure and all attributes appropriate for energy import. Lithuania's actions and intents show it is persistent in defending its energy security. Changing situation in energy sector requires constant negotiations, for that reason author thinks that EU's policy discrepancies can be assumed to be not necessary bad. As there are so many gaps and many competitive actors, small states such as Lithuania can try to fill these gaps. What is more, one good policy that favors leading powers instead of small ones would be worst and would be hard to have further negotiations.

Giving the facts and situation in Central Asia, could be concluded that Lithuania in the future could connect to projects such as Nabucco, White stream and Ukraine-Odesa-Brodey. To achieve this it needs to be done a lot of steps: starting from simple internal demand calculations, Government's incentive for investment into infrastructure, convincing future transiting countries and etc., not mentioning politics with Russia. This could be an amendment in already existing

Lithuania's energy strategy; however the author do realizes that to call this suggestion as a real strategy is way too early as it needs more technical, economic and political calculation which was not possible investigate in this paper.

Despite smallness and EU actions, author came up to conclusion that Lithuania is capable to certain extend to secure its energy security, but has to choose right approach. EU mostly constrains internal cooperation, however for external there are many options that could be used. If to link it with proposed region-Central Asia, EU so far was not so active in showing interest in the region, but the situation soon will reach a point where EU might lose good import opportunities over Far East countries, there for current crisis that EU is experiencing is a good moment for Lithuania and other Baltics states plus Poland, basing on already existing strategy to assure Caspian commitment as supplier for planned projects.

Recommendations

Lithuania should take 3 way approaches for its alternatives. This should be act on all at the same time. Author would divide it into:

EU level,

- Together with the other Baltic countries and Poland, Lithuania can and should play a leading role in developing and coordinating policies that will guarantee Europe's energy security and keep on promoting energy solidarity.
- All treaties and documents clearly lack precision who has to do what and who and from where it should be imported the shortage. Therefore this should be raised for revision and amendments and Lithuania could do it during its presidency in EU
- Lithuania should support and promote as much as in its competence external EU energy politics.

National/regional (neighboring countries)

- Lithuania should build LNG and improve other infrastructures and keep as a priority to maintain the stability of sea import.
- Country needs to keep on pursuing and strengthening neighboring countries cooperation policy as they are the main supporters for various projects and partners that are having similar vision of energy security. The best would be to have strategic partners union in

order to have more impact and influence in EU and outside it. In order to connect to EU system Lithuania needs to be with Poland. From geopolitical view Poland and Belarus with Ukraine would be the exit, as they would be a mean for connection to other countries. So good bilateral relations with these countries should be not forgotten.

External/ Caspian region

- Lithuania should play a role in strengthening support for Nabucco and GUEU and Ukraine-Odesa-Brodey as a sole country or within the framework of the EU
- Talking about external matters, Lithuania should support Central Asia countries using the fact that Russia itself depends on these countries deposits.
- Kazakhstan and Azerbaijan would be the main suppliers if one day their gas and oil would reach Lithuania's land. For this reason the country should strengthen relations with these countries.
- The last recommendation would be to try to become a part of International organizations were as a member country would have a bigger chance to have a say it decision making and would be protected in securing energy means.

Bibliography

Primary sources

Central Asia Strategy (2007)- http://eeas.europa.eu/central_asia/index_en.htm

Energy Roadmap 2050. (2011). European Commission, Brussels

European Commission (2006). *A European Strategy for Sustainable, Competitive Energy*. March

European Commission Statistics

http://ec.europa.eu/energy/observatory/oil/import_export_en.htm

IAE- http://www.iea.org/subjectqueries/keyresult.asp?KEYWORD_ID=4103

Lithuania's Energy Ministry- <http://www.enmin.lt/lt/>

Lithuanias' energy strategy (2006)- <http://www.enmin.lt/lt/nes/2.pdf>

The EU and Central Asia: Strategy for a New Partnership (2007). COUNCIL OF THE EUROPEAN UNION, Brussels, 31 May

Treaty of Lisbon (2007)-

<http://eurlex.europa.eu/JOHtml.do?uri=OJ:C:2007:306:SOM:EN:HTML>

Secondary sources

Books

Daniel Moran. (2012) *Handbook of oil Politics*. Routledge International Handbooks. Edited by Robert E Looney. Chapter: Energy security

Drew Fudenberg and Jean Tirole (2000). *Game theory*. Massachusetts University

Dries Lesage, Thijs Van de Graaf, Kirsten Westphal (2010). *Global Energy Governance in a Multipolar world*. Edited by Andrew F. Cooper and John J. Kirton

Erich Reiter, Heinz Gartner. (2011). *Small States and Alliances*. Österreichisches Institut für Internationale Politik, Viena

Iver B. Neuman, Sieglinde Gsthol (2006). *Small states in International Relations*. University of Washington.

John Mitchell with Koji Monita, Norman Selly and Jonathan Stern (2001). *The new economy of oil. Impacts on Business, Geopolitics and Society*. EarthScan Publications, Ltd, London

Mamuka Tsereteli. (2008). *Economic and Energy Security: Connecting Europe and the Black Sea-Caspian Region*. Central Asia-Caucasus Institute. Silk Road Studies Program, Sweden

Michael Mosser (2001). *Engineering Influence: The Subtle Power of Small States in the CSCE/OSCE in Small States and Alliances*, Erich Reiter and Heinz Gärtner, eds., Heidelberg; New York: Physica-Verlag.

Miroslav Nincic, Joseph Lepgold. (2000). *Policy relevance and International Relations Theory*. University of Michigan

Nolan McCarty, Adam Meirowitz (2007). *Political Game Theory*. Cambridge University press

Olav F. Knudsen (1996). *Small states and the security challenges in the new Europe. Brasseley's Atlantic commentarius NO8*. Edited by: W.Bauwens, A.Clesse, O.F.Knudsen. London-Washington.

Rainer Kattel, Tarmo Kalvet, Tiina Randma-Liiv (2010). *Small states in Europe*.

Roland Gotz. *The European Union and Central Asia. Energy cooperation: the southern gas transport corridor*. (2011). Edited by Alexander Warkotsch. Routledge

Steven J. Brams (2004). *Game theory and politics*. New York.

The Caspian. Politics, energy and security (2004) Edited by Shirin Atiner. Routledge Curzon London and New York

Tatiana Romanova (2012). *Legal Approximation in Energy: A new approach for the European Union and Russia*. Political Economy in Energy, Palgrave.

Theodore L. Turocy, Bernhard von Stengel (2001). *Game theory*. Texas A&M University, London School of Economics.

Zeno Baran, Lithuanian Energy Security (2006). *Challenges and Choices*. Center for Eurasian Policy, Hudson Institute, in cooperation with Center for Strategic Studies and Ministry of Foreign Affairs of the Republic of Lithuania.

Articles

Andreas Goldthau (2011). *Governing global energy: existing approaches and discourses*. From: www.sciencedirect.com

Ann Florini (2008). *Global Governance and Energy*. Centre on Asia and Globalization

Arunas Molis. (2011) Rethinking EU-Russia energy relations: What do the Baltic States want?. February, Institut fur Europeasche Politik

Belarus: Addressing challenges facing the energy sector.(2006). Infrastructure Department Europe and Central Asia Region

EU Should Unite Over Russia's Energy Policy: Lithuanian President.” *Agence France-Presse*. May 4, 2006

Dmitrios Triantaphyllou and Yannis Tsantoulis. (2001). *Issues in EU and US Foreign policy* Edited:Munevver Cebeci, Lexington Books.

Florian Baumann (2008). *Energy Security as multidimensional concept*. Research group on European Affairs. Nr. 1.

Frederick Starr, Svante Cornell, Eds (2005), *The Baku-Tbilisi-Ceyhan Pipeline: Oil Window to the West*. Central Asia-Caucasus Institute & Silk Road Studies Program

Geraldo L. Munck (2001) *Game Theory and comparative politics. New Perspectives and Old Concerns*. <http://muse.jhu.edu/journals/wp/summary/v053/53.2munck.html>

Iana Dreyer, Fredrik Erixon, and Robin Winkler (2010). *The Quest for Gas Market Competition Fighting Europe's Dependency on Russian Gas more Effectively*. ECIPE Occasional Paper. No 1

Jacques J. De Jong and Ed Weeda, Europe (2007). *The EU and its 2050 Energy Storylines*, Clingendael

Ludwig-Bölkow-Systemtechnik Mr. M. Altmann, Mr. P. Schmidt, Aand many more (2010) *EU Energy Markets in Gas and Electricity – State of Play of Implementation and Transposition*. Directorate-General for Internal Policies.

Kornelija Dūdaitė (2012). *Bendra ES Atomines Energetikos Politika: Misija Įmanoma?*, VU TSPMI Energetinio saugumo akcentai. Nr. 2 (11), Vasaris

Mark Leonard and Nicu Popescu. (2007). *A Power Audit of EU-Russia Relations*, European Council on Foreign Relations.

Matthew Ocheltree, (2011). *The Evolving concept of energy security*. Energy Issue Brief, Carnegie Endowment for International Peace

Michael F Keating, Caroline Kuzemko, Andrei V.Belyi, and Andres Goldthau.(2012) *Introduction: Bringing Energy into International Political Economy*. Tatiana Romanova. Legal approximation in Energy: a new approach for the European Union and Russia. PROOF. January

Miklos Losoncz (2006). *Analysis: Energy dependence and supply in Central and Eastern Europe..* Found at: <http://www.euractiv.com/en/energy/analysis-energy-dependence-supply-central-eastern-europe/article-155274-2006> 05 15

Sami Andoura, Leigh Hancher and Marc Van De Voude (2009). *Towards a European Energy Community*. A Policy Proposal, Policy Proposal by Jacques Delors

Tomasz Sikorski (2011). *Prospects of the Trans-Caspian Gas Pipeline*, May 17, The Polish Institute of International Affairs

Veidas. (2012) *Proгноzes 2012*, nr. 1

Webpages

China daily. (2012). *China to boost Central Asia ties.*

http://www.chinadaily.com.cn/china/2012diplomats/2012-01/13/content_14438307.htm-2012-01-13

Delfi.lt (2012). *R.Kuodis: be modelio retam politikui projektai telpa galvoje.*

<http://m.delfi.lt/verslas/article.php?id=58774149-2012-05>

EIA (Energy informatikon administration) <http://www.eia.gov/cabs/azerbaijan/Full.html>

Eurasianet.org .(2006). *BTC: Kazakhstan Finally Commits to the Pipeline*

<http://www.eurasianet.org/departments/business/articles/eav061906.shtml>

Journal of energy security (2012). *February Cold Wave Snaps EU Russia Gas Relations*

http://www.ensec.org/index.php?option=com_content&view=article&id=345:february-cold-wave-snaps-eu-russia-gas-relations&catid=123:content&Itemid=389 (2012 04 19)

Kazakhstan Energy Data, Statistics and Analysis - Oil, Gas

<http://www.docstoc.com/docs/49884481/Kazakhstan-Energy-Data-Statistics-and-Analysis---Oil-Gas>

L.Rytas.lt. (2011) .D.Grybauskaitė: „Energetinis saugumas - bendras Lietuvos ir Estijos tikslas“

<http://www.lrytas.lt/-13214486141320277870-d-grybauskait%C4%97-energetinis-saugumas-bendras-lietuvos-ir-estijos-tikslas.htm-2011-11-16>

Rianovasti. (2008). *Amber project not alternative to Nord Stream - Kremlin aide-*

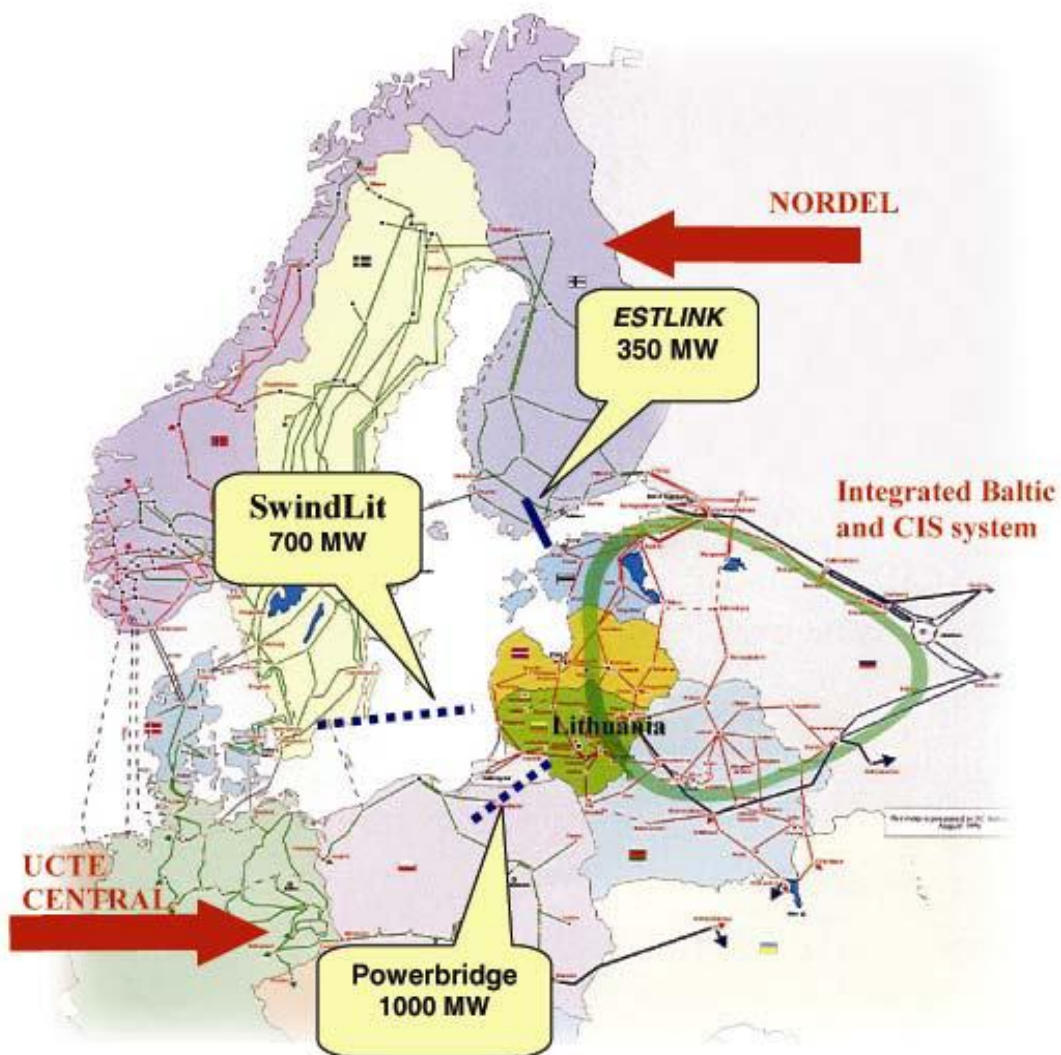
<http://www.en.rian.ru/business/20080207/98671760.html-2008-02-07>

Veidas.lt. (2012). *Lietuvos energetinė nepriklausomybė: ar besulauksim?*

<http://www.veidas.lt/lietuvos-energetine-nepriklausomybe-ar-besulauksim-2012-03-07>

ANNEX

Electricity links



Source: Liuhto 2009.

Oil and gas projects



Source: <http://www.eia.doe.gov/emeu/cabs/Russia/NaturalGas.html>