Energy Security from a Regional Perspective – the Concept of Regional Energy Security Complexes

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Abstract

Energy is the lifeblood of our modern society, statehood and the politico-economic complex. Security of energy is of utmost importance for the actors of this complex; however energy security as global issue is undergoing significant change – new challenges emerge and new forms of interstate cooperations appear on regional level. The thesis addresses the relationship between these two phenomena from the field of international relations. The aim is to identify a theoretical approach capable of integrating the expanded concept of energy security. The thesis argues that the application of the concept of Regional Energy Complex Theory developed by the Copenhagen School is able to accomplish this requirement by providing a flexible framework to incorporate different understandings on energy security, on the regional level as well by allowing and explaining the emergence of Regional Energy Security Complexes.

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Introduction

Institutionalized, multilateral international energy cooperations tend to date back their establishment to the Cold War or the early 1990's. The International Energy Agency was founded in 1974, International Energy Forum in 1991, Energy Charter in 1994, OPEC in 1960, International Atomic Energy Agency in 1957. This is not the complete list of international energy institutions; however these are the main forums and organizations representing the discussion of energy policy on intergovernmental level. The main field of operation of the organisations is to provide information for proper market operation (and regulation for states), or affect the global energy market (practically oil market since other energy sources lack such developed world-wide transport and exchange system) different ways. Energy security in the understanding of these organisations is rather simple and supply security and price stability focused in a narrow understanding of these[1].

Energy security however is a much broader issue-complex than simply the physical security of oil import or export. Environmental issues emerged and appeared in the mainstream of energy policy debates as the scientific evidence gradually gathered questioning the environmental sustainability of the existing energy system. New consumer-centres emerged in Asia, Africa and South-America, energy prices started to soar and became instable, the depletion of easily extractable field on the short run was

[1] Benjamin K. Sovacool, *The Routledge Handbook of Energy Security* (Abingdon [England]; New York: Routledge, 2011).

projected, and energy poverty could not be neglected any longer – the politicization of energy security as a global issue was hardly avoidable. In general the perception of energy security as a matter of supply security of oil in global terms had to change due to the newly emerged or previously neglected issues. However neither of the issues constituting energy security as a complex is new in the sense that all the political-economic-social issues associated with energy security are results of the special features of energy in general (sensibility to market failures and its ontological[2] nature).

The urgent need for reinterpreting energy security was mirrored in the G8 meeting of 2005 in Gleneagles that can be considered as a milestone in international energy policy approach[3]. Following this summit energy security in its broad sense encompassing the issues above (for their detailed introduction see Ch. 2.) became the dominant framework for decision makers and also appeared consequentially on the agenda of the following summits[4]. This doesn't imply by any chance that such approach on country-levels did not exist prior its recognition by the G8. But the fact that a political group gathering the main (economic) powers and representing 40% of the global energy consumption made a strategic decision and accented a different approach than previously has significance.

[2] Ontological in this sense is a synonym for existential – it reflects that ability to access to energy is an existential necessity not just for individuals but modern (welfare) economies, states, institutions and societies in general.

[3] Thijs Van de Graaf and Kirsten Westphal, "The G8 and G20 as Global Steering Committees for Energy: Opportunities and Constraints," *Global Policy* 2 (September 2011): 19–30, doi:10.1111/j.1758-5899.2011.00121.x.

[4] Dries Lesage, Thijs van de Graaf, and Kirsten Westphal, *Global Energy Governance in a Multipolar World* (Farnham, Surrey, England; Burlington, Vt.: Ashgate, 2010).

Almost parallel to the process of reinterpreting energy security on global political level, activity on the regional level is also observable. Energy security appeared and still appears on the agenda of different intergovernmental regional cooperations: the Energy Community was established in 2006; in the Visegrád Group in 2009 (see later for detailed discussion); within the framework of the Shanghai Cooperation Organization an establishment of an energy club is on-going since 2007 and will be finished soon[5]; regional energy security cooperation in Latin-America is also in upheaval recently[6] and ASEAN energy (security) cooperation has become more intense recently, than during its previous 35 years of operation[7].

These phenomena provoke question addressing their causes and constitutive processes. Energy policy and energy security are unique among policy fields concerning the strategic, existential importance of energy security and special characteristics requiring active participation of the state giving space to intensive politicization, both on domestic and international level. Moran and Russel write: "It is in the energy sector that strategic planners now find it easiest to imagine major states reconsidering their reluctance to use force against each other."[8] A policy field with such significance requires

[5] "Establishment of SCO Energy Club Enters 'Final Straight' - Lavrov" (Interfax, May 11, 2012), http://www.interfax.com/newsinf.asp?pg=8&id=330785.

[6] P. Singh, "The Politics of Energy Cooperation in Latin America," *International Studies* 46, no. 4 (March 15, 2011): 457–470, doi:10.1177/002088171004600405.

[7] Robert Pritchard, "ASEAN Energy Co-operation," *Oil , Gas and Energy Law* no. 4 (2005), http://www.ogel.org/article.asp?key=2030.

[8] Moran Daniel and James A. Russell, "Introduction - The Militarization of Energy Security," in *Energy Security and Global Politics: The Militarization of Resource Management* (London; New York: Routledge, 2009), 2.

a deeper analysis from a more theoretical point of view, in order to properly explain its effects on the different actors and levels of analysis. The changes observed are taking place within the international sphere; its main actors are states and the hypothesized cause of the development of regional energy security cooperation is the shift in the interpretation of energy security on the global level. Therefore the phenomenon requires an IR Theory approach but also necessitates elaborating on the changed energy security nexus.

After introducing the basic logic of the current research I will focus on the unique nature of energy as a policy issue in order to underline the active role of the state as an actor in energy policy issues, especially in energy security which is undergoing a serious change lately becoming more vague and complex than before. I argue that this change implies the necessity to be addressed by an IR theory perspective and will try to show that classical understandings on security are missing basic elements of the new energy security concept. The Copenhagen School's theoretical construction on regional security complexes will be introduced and presented as a possible concept able to encompass both the shifting energy security paradigm and the emerging regional level. Based on this I will argue for the relevancy of the concept of Regional Energy Security Complex (RESC) and apply its model on a case study of the Visegrád Group's energy security cooperation mechanism.

Chapter 1. Research Design

As discussed in the Introduction, this thesis addresses the phenomenon of regional security cooperations that have newly emerged or have undergone significant development recently (time dimension is framed by the Gleneagles Summit). The main question the thesis asks is 'Why do regional energy security cooperations emerge recently, and how they are formed and operated?'.

The analysis of this question requires an IR theoretical approach since the dependent variable, the outcome to be explained is state behaviour in an international environment. However the main hypotheses, the core of the inquiry is that the subject of energy security has changed. Therefore the research applied has to integrate two different fields of inquiry. Energy and energy security needs to be redefined in the light of the developments of the last decade, and an IR theory approach is requisite to be introduced, able to integrate the assembled concept on energy security and explain the phenomenon of regional energy security cooperations.

Since the main goal during the research will be to enable the integration of a policy field into the framework of a predefined IR theory tenet or school, the classical methodological strictness of theory formation needs to be eased. Further flexibility is also needed, because it will be argued that the amalgamation of energy security – ontologically causal and rational due to its commodity-nature – and the concept of the

Copenhagen School on security – rooting in constructivism – is able to provide a proper understanding of current energy security issues within the international political sphere.

"Abduction" as a research strategy approach is able to provide such flexibility as it means "[…] applying concepts from existing fields of our knowledge. Instead of trying to impose an abstract theoretical template (deduction) or 'simply' inferring propositions from facts (induction), we start reasoning at an intermediate level (abduction)."[9]. The ambition of this research is to combine a concept of energy security and the most applicable theoretical school, but not to provide statements concerning neither the core of energy policy nor the very nature of International Relations in general, therefore in this case a "pragmatic" research approach is proper and suitable[10].

In order to present the results and test them as well, a case study will conclude the research. According to the logic of abduction the "easy"[11] or most typical case scenario will be pursued, chiefly because its "greatest advantage of these strategies is that they mitigate the problem of fuzzy conceptual borders"[12]. The integration of two concepts rooting in different realms requires this "fuzziness" of their borders; however this prevents to build a tightly framed, narrow model applicable to small number of cases but with higher potential explanatory value. The flexibility is required however

[9] Jörg Friedrichs and Friedrich Kratochwil, "On Acting and Knowing: How Pragmatism Can Advance International Relations Research and Methodology," *International Organization* 63, no. 04 (October 19, 2009): 709, doi:10.1017/S0020818309990142.

[10] Friedrichs and Kratochwil, "On Acting and Knowing."

[11] Audie Klotz, "Case Selection," in *Qualitative Methods in International Relations: A Pluralist Guide* (Palgrave Macmillan, n.d.).

[12] Friedrichs and Kratochwil, "On Acting and Knowing," 718.

because of the distinct nature of the examined concepts. Therefore the goal of the case study is less to prove the appropriateness of the model to be shaped (especially because most likely cases are not especially suitable for proving through falsification), but rather to present the models loose boundaries by application.

Chapter 2. Conceptualization and Background

Energy and especially energy security became a distinctive topic of current discussions and debates over international relations, national security and development, although only ca. a decade ago much less was heard about this topic[13]. Energy security was nothing more than the function of oil price and the decision of the OPEC. But 'gas weapon' was an unknown concept, climate change was only a threat articulated by groups seemed radical back than (like Greenpeace) and energy poverty is not addressed by the Millennium Development Goals. The relative negligence of energy security was also observable in the field of International Relations theory: during its thirty years of operation, the acknowledged journal *International Security* has published only eight articles in the topic of energy[14]. However the undertheorized nature of energy security is understandable due to two factors: the lack of a definition generally accepted and of

[13] Barry Barton, *Energy Security: Managing Risk in a Dynamic Legal and Regulatory Environment* (Oxford; New York: Oxford University Press, 2004).

[14] Roland Dannreuther, *International Relations Theories: Energy, Minerals and Conflict*, POLINARES Working Paper, September 2010, www.polinares.eu/docs/d1-1/polinares_wp1_ir_theories.pdf.

widespread use[15], and the special characteristic of energy in general deeply affecting the nature of energy security. The recent upheaval of the topic of energy and energy security is due to the emergence and discovery of new energy challenges (i.a. energy poverty, climate change, volatile prices) which was followed by the resurgence of inquiry on energy policy and gave birth to a new field in international policy studies – the study of global energy governance. However on one hand this particular field does not put much effort in the analysis of the levels of energy governance under the global one, and on the other hand doesn't offer an understanding of international energy (security) issues within the reach of the theory of international relations.

2.1. Towards a Wider Concept of Energy Security

As a first step the main topic – energy security – of the current inquiry needs to be defined. However two factors complicate this mission: the special and complex nature of energy as (policy) issue on one hand, and the emergence of new energy-related problems and threats during the last decade on the other.

i. Energy as an Exceptional Policy Field

A central assumption this thesis accepts and tries to underscore in an indirect way is that energy and therefore energy security is unique by its mere nature. As Schumacher and Kirk write energy is "not just another commodity, but the precondition

[15] Sovacool, *The Routledge Handbook of Energy Security*.

of all commodities, a basic factor equal with air, water and earth"[16]. As energy interacts with every single policy area it creates numerous externalities and becomes the most complicated issue-complex of all. To grasp effectively the exceptionality of energy we shall take a double approach – an economic and a political one, since energy is technically a commodity (is produced traded and consumed) but also a strategic and essential resource and basis of modern society, institutions and politics.

Goldthau & Sovacool from a public policy (therefore a microeconomics based) viewpoint define four dimensions of fundamental differences of energy compared to other (global) policy issues: 1. Stronger vertical complexity – energy is connected to every single sector, public or private, and as these sectors do not exist horizontally but layered on each other they create the 'energy chain' from production to end users; however this chain is more like a nest or a network; 2. Horizontal complexity – energy issues exist on all three levels (micro, meso and macro) and affect basically every single actor on those levels (from individuals through firms to state-level institutions); 3. Higher entailed costs – due to the strong link between growth and energy use, the high capital intensity of energy investments and the externalities of energy production/consumption (e.g. climate change) energy induces quantitatively and qualitatively significantly more costs than other sectors; 4. Stronger path dependency – lock-in effects are general features of energy infrastructures making even small-scale (technological) changes

[16] Andreas Goldthau and Benjamin K. Sovacool, "The Uniqueness of the Energy Security, Justice and Governance Problem," *Energy Policy* 41 (February 2012): 1, doi:10.1016/j.enpol.2011.10.042.

extremely expensive[17]. In sum the special nature of energy from a policy oriented, microeconomical perspective can be grasped in its universal outreach – vertical and horizontal through social, political and economic layers, the vast costs of investment and development and the potential of several market failures[18]. These factors necessitate the existence of state-intervention into the energy market domestically and internationally for economic reasons.

Taking energy under examination from a less economic, rather political angle we shall discover the ontological nature of energy for every actor along the energy value chain. Lack of the ability for proper energy consumption can be – literally or in a figurative sense – fatal to the subject, let it be an individual, a company or even a state. Economic and political losses due to abrupt and unexpected price changes or supply disruptions can cause damages comparable only to the consequences of armed conflicts. But the ontological nature, the essentiality is equally present on the 'demand' side: for states and societies relying on revenues from exporting various forms of energy

[17] Goldthau and Sovacool, "The Uniqueness of the Energy Security, Justice and Governance Problem."

[18] These are rarely staying potential but usually rather materialize. Market failures are situation in which the market cannot operate properly, is unable to produce and distribute the goods in the optimum-point and efficiency cannot be restored without external (governmental) intervention [John G Cullis and Philip R Jones, *Public Finance and Public Choice* (Oxford: Oxford University Press, 1998)]. In the field of energy the main market failures are: 1. Imperfect competition – mainly due to natural or regulatory monopolies (Gazprom) or cartels (OPEC); 2. Externalities – usually pollution and its consequences (e.g. climate change), but also the negative externalities of price-freezing on long-term investments; 3. Creation of public goods – connection to the electricity grid or the management of strategic oil reserves; 4. Lack of information – national energy companies tend to publish less-detailed or false statistics [Andreas Goldthau, "A Public Policy Perspective on Global Energy Security," *International Studies Perspectives* 13, no. 1 (February 2012): 65–84, doi:10.1111/j.1528-3585.2011.00448.x.] The correction of these market imperfections is only feasible through regulatory (governmental) intervention.

(primary or secondary) these revenues are the source for relative political stability or security, and provide a certain level of social welfare not to mention the employment effect[19]. The unbearable high alternative costs of the proper functioning of energy markets and secure energy supply and demand create an almost incomparably strong intention for governments to use various tools in order to ensure the "lifeblood" for their economic and social actors.

The main peculiarity of energy compared to other goods and services relies in this two-fold nature: on one hand energy acts as a commodity, it is traded by private firms on a global or regional market (depending on the exact fuel), used by every sector in every moment and every actor. On the other hand however this market is not almighty, it suffers from serious imperfections necessitating the action of a regulatory power. But due to the strategic quality of energy the intervention of the state excesses the level required by the correction of market failures and distort the operation and creation of market-based institutions and instruments. The end-result is a complex network of interactions between states and private actors defining the rules of domestic and international energy governance. Due to these features Lesage et al. suggest to apply the definition of "mega-issue" on energy, under which they understand the following:

[19] I do not wish to contest the existence of phenomena like 'rentier states' or 'resource course' here. Political stability provided by energy revenues usually falls far from the common understanding of 'good governance' (see the „First law of Petropolitics" – [Thomas L. Friedman, "The First Law of Petropolitics," *Foreign Policy*, May 1, 2006, http://www.foreignpolicy.com/articles/2006/04/25/the_first_law_of_petropolitics]). However it is almost for sure that the relative social and political stability in the affected countries is due to the energy-income, therefore the ontological security of the political system and the prevailing social institutions depends considerably on such revenues.

"Mega-issues typically demand a vertically and horizontally integrated policy response. Vertically, because the solutions require the cooperation of billions of actors [...] Horizontally, because addressing the energy challenges requires a variety of policy measures across several policy domains."[20].

However this network stands currently under a severe 'offense' by some newly emerged security issues, what will underline the main argument presented here, that the main actor of energy policy is the state, even if it operates (ideally) in the background, the ontological nature and the presence of market failures in energy requires that a sovereign state shall have the main 'domain' over energy policy issues – security especially.

ii. New Energy Challenges

The image of the energy sector-complex in general outlined previously is a model applicable more-or-less to the history of energy policy paradigms during the XXth Century from the oligopoly of the Seven Sisters to the resurgence of the neoliberal market-oriented thoughts marked by the Energy Charter Treaty in 1998 – despite the significant shifts in putting accent on statist or market tools[21].

But during the first decade of the XXIst Century numerous issues have newly arisen or been discovered. These issues change the energy landscape substantially,

[20] Lesage, Graaf, and Westphal, *Global Energy Governance in a Multipolar World*, 3.

[21] Andreas Goldthau, "From the State to the Market and Back: Policy Implications of Changing Energy Paradigms," *Global Policy* 3, no. 2 (May 2012): 198–210, doi:10.1111/j.1758-5899.2011.00145.x.

elevating the importance of energy policy to an even higher level. The executive director of the IEA defined these "daunting set of new challenges and risks" as follows:

1. Economic uncertainty;
2. Energy access;
3. Price inflation;
4. Energy investments;
5. Golden age of gas;
6. Power balance;
7. Climate change;
8. International energy governance[22].

Although the IEA was set up by the major (oil) consumer states in response to the formation of OPEC, therefore there can be a chance that it distorts the picture in favour of the demand-side, in this case the identified problems are global and universal in their nature indeed, affecting both net energy (source) producer and consumer states. Economic uncertainties (economic crisis) and power balance issues (emerging in Europe due to the accelerated German phase-out of nuclear reactors) are not long-term problems of great significance – on the scale the rest of them is measured. Furthermore the challenges of international energy governance are rather consequences of these issues, not sources in themselves.

Based on Dubash and Florini[23] these issues can be classified into three groups covering the major issue-centres of global (and also local) energy policy.

[22] Maria van der Hoeven, "IEA Vision on International Energy Governance," *Energy Strategy Reviews* 1, no. 2 (September 2012): 73–75, doi:10.1016/j.esr.2012.05.001.

1. Energy Supply Security. The gravity centres of energy consumption and trade are shifting – the developing world (especially South-East Asia lead by China and India) is on its path of heavy industrialization and social-economic development. Base on the estimates of the Energy Information Administration, energy demand by non-OECD countries will increase by 85% compared to 18% growth by the OECD[24]. This sudden and sharp rise in energy demand and its geographical restructuring is a serious challenge for energy investments and the markets in general – to build up sufficient capacities along the energy value chain, in upstream and downstream as well. However investments and supply security is just one problem, an even more daunting one is the projected, significant increase of prices. Such increase in global demand combined with the depletion of reserves exploitable cheaply (compared to the technology- and capital-intensive off-shore and non-conventional fossil fuel fields) projectiles significant and stable rise in the prices of different energy commodities. But the major issue associated currently with the supply side is the mercantilist behaviour of the emerging "consumer heavy weights"[25] who are trying to ensure their security of supply – in terms of prices as well – by giant National Energy Companies and active energy diplomacy and treat

[23] Navroz K. Dubash and Ann Florini, "Mapping Global Energy Governance," *Global Policy* 2 (September 2011): 6–18, doi:10.1111/j.1758-5899.2011.00119.x.

[24] Energy Information Association, "International Energy Outlook 2011" (Energy Information Association, 2011).

[25] Goldthau, "From the State to the Market and Back."

energy issues as security challenges in general[26]. From the supplier side a similar tendency is to be observed with the rise of "resource nationalism"[27]. This means that the current, essentially market-based global energy governance regime[28] needs to accommodate to a more state-centric one which on one hand doesn't promise a smooth transition, but on the other hand underlines the one argument within this section of the thesis: energy security is subject of state intervention and in the future it will become even more so.

2. Energy and Fuel Poverty. Currently around 1.4 billion people in the world lack access to electricity and 2.7 billion doesn't have proper cooking facilities[29]. Energy poverty causes security concerns two ways: on one hand the lack of the ability of proper energy consumption threatens the very existence of the individuals[30], and furthermore it prevents the energy poor regions and people from achieving a higher level of social and economic development[31], therefore it causes general social insecurity and through that political as well. On the other hand providing the ability for energy consumption universally would

[26] Dubash and Florini, "Mapping Global Energy Governance."

[27] Brenda Shaffer, *Energy Politics* (Philadelphia: University of Pennsylvania Press, 2009).

[28] For a detailed description of the concept and debates see sub-chapter 1.2.

[29] International Energy Agency, *Key World Energy Statistics 2012* (Paris: International Energy Agency, 2012).

[30] Respiratory failure due to the smoke of improper cooking and heating facilities is a more common death cause in the world than malaria or tuberculosis [Energy Information Association, "Energy Poverty: How to Make Modern Energy Access Universal" (Energy Information Association, September 2010).].

[31] Ibid.

also mean a further substantial increase in global energy consumption intensifying the issues outlined in the previous paragraph, but would also have significant, negative environmental effects since the cheapest and easiest way to provide access to these people is by utilizing fossil fuels. Fighting this issue obviously requires the active participation of the state (among other institutions of course, inter alia international development banks, civil initiatives, market players) that is able to coordinate the activities and can handle the security challenges coded in.

3. Environmental Sustainability. The most apparent and well-known issue currently connected to the energy sector is the pollution of current fossil-based energy production[32]. Sustainability of energy production is necessary – not as if threat that fossil reserves run out in the future would be real[33], but the increasing costs and especially the negative effects on the climate of the Earth, proven to be anthropogenic[34] meaning that the current energy production mix cannot be sustained on the medium or long run without endangering the existential security of complete regions and large masses of

[32] More than two-thirds of primary energy production comes from oil, coal or natural gas [International Energy Agency, *Key World Energy Statistics 2012]*.

[33] As the famous quote by Ahmed Zaki Yamani says "The Stone Age did not end for lack of stone, and the Oil Age will end long before the world runs out of oil". The global Reserves-to-Production ratio of oil and natural gas has been stable during the last decade [BP, "BP Statistical Review of World Energy June 2012" (BP, June 2012).], but fossil fuel prices are rising (with the exception of natural gas) and are losing their competitiveness.

[34] Lenny Bernstein et al., *Climate Change 2007: Synthesis Report* (Geneva, Switzerland: IPCC, 2008).

human population[35]. Furthermore the picture is complicated by the fact that in the history of Mankind ever since the discovery of the intentional use of fire, the utilized energy resource had always had higher energy density[36] than its predecessor[37] - but this is not the case of transition to renewable sources, what implies that without vigorous governmental intervention the management of this shift seems hardly feasible.

The classification is artificial to some extent because these problems are intertwined on many levels, but all of these issues are direct results of the special features of energy presented above: energy poverty is a form of classic market failure (the lack of the production of a necessary public good, access to energy), the energy supply security derives from issues with information transparency, lack of adequate investments and monopolistic markets, and climate change is a classic example of transboundary negative externality. But they are also directly and closely related to the ontological nature of energy since they affect its mere existence along the value chain both on short and long run. Therefore they form essential part of current energy policy challenge-complex.

[35] Ibid.

[36] Energy density is a rarely used concept since its operationalization is questionable, however it is mostly understood as the „amount of energy stored in a given system or region of space per unit volume" [Eric W. Weisstein, "Energy Density," *Eric Weisstein's Wolrd of Physics* (Wolfram Research, n.d.), http://scienceworld.wolfram.com/physics/EnergyDensity.html.].

[37] Vaclav Smil, *Energy in World History* (Boulder: Westview Press, 1994).

A proper definition of energy security – which is a part of energy policy – shall encompass the classical issues of the energy sector but also has to deal with the current challenges outlined above.

iii. Definition of Energy Security

The detailed and extensive introduction of energy challenges of two kinds (classical, inherent and newly emerged) is required (besides methodological and theoretical considerations presented later) to enable us to set up a proper definition of energy security encompassing the variety and complexity of issues related to it.

Energy security is a contested and dynamically changing concept. For Nye and Deese in 1981 energy security was nothing more than cheap and stable supply of oil[38]. If we take the forty-five definitions of energy security, collected by Sovacool[39] we can see nothing more than a great diversity of factors and variables but few common elements. The lack of a commonly approved definition is certainly due to the diverse and special nature of energy presented above – any definition will include ab ovo several very conflictual issues (e.g. security of supply vs. security of demand) and it seems impossible to set up a definition without choosing sides in these conflicts. In the words of David Victor: "Energy security is like a Rorschach inkblot test – you can see whatever you want

[38] David A Deese and Joseph S Nye, "Energy and security" (Cambridge, Mass.: Ballinger Pub. Co., 1981).

[39] Sovacool, *The Routledge Handbook of Energy Security*.

to see in it" (cited by Sovacool[40]). However in order to investigate energy security in a rather theoretical research, it is necessary to aspire for the most objective definition possible within the reach of the project. That is – again – one reason behind the detailed presentation of energy.

Based on these considerations, during the thesis I will use a concept of energy security that is composed by the factors as follows:

1. The security of physical supply – the reasonable expectation that the ability of energy consumption (on the level of individuals, economic actors and governments) is given in short and medium terms, including the tiers of production, transport and consumption and adequate level of investments to ensure these.
2. Affordability of energy – the ability to consume energy in a volume required for the maintenance of existential security and human dignity; furthermore minimal possible price volatility and the predictability of price changes which are reflecting full costs (providing proper information for consumers and suppliers as well) – especially for supplier countries in order to ensure reliable and predictable demand.
3. Sustainability – reducing the polluting emissions of energy production and consumption to a level that ensures the survival of the existing socio-

[40] Ibid., 3.

politic-economic complex and minimizing the destructive effects of changing climate on the general security of individuals, institutions and states.

This definition is able to address the market failure issues and the 'ontologicality' associated with energy, therefore it can cover basically every challenge currently the global energy system faces. However it does not mean that energy security necessarily and in every practical case will refer to all of these factors in the understanding of the actors. The exact definition of energy security is a subject of interpretation and change based on many variables of a particular case. But energy security in general shall encompass the listed features, therefore a theory trying to address it also needs to be able to incorporate any of these.

Chapter 3. Theoretical Framework

In the previous Chapter I have argued that energy security has a prominent role for states. Due to the inherently international nature of energy and energy security (through trade and externalities), in order to understand the relevance of energy security in the international sphere, and its appearance on the regional level, a certain theoretical framework or tenet needs to be found.

3.1. The Emergence of Global Energy Governance

The previous chapter's aim was also to articulate the importance of the state level in the energy sector as well as the globality of the issues presented. The recent developments and challenges in the field of energy sector draw the attention of scholars investigating energy policy in international context who were trying to develop a framework to address the global sphere of energy policy which is mostly dealing with only the domestic level. "[…] global energy governance tends to focus on institutions, organizations and actors regulating energy markets or providing for energy security largely defined. In that, most existing studies inherently or explicitly tend to ask the questions of 'who governs (or should govern) energy?'"[41].

[41] Andreas Goldthau, "Governing Global Energy: Existing Approaches and Discourses," *Current Opinion in Environmental Sustainability* 3, no. 4 (September 2011): 213–217, doi:10.1016/j.cosust.2011.06.003.

Global energy governance is concerned with the texture and composition of the "patchwork"[42] composed by many international institutions ranging from REN21 through IEA to the G20 – these institutions usually aim to correct market failures by providing information or minimizing the transaction cost of multilateral negotiations and common actions. This basically calls for a public policy analysis which takes an essentially market failure oriented approach[43] and global energy governance as a toolset aims to analyse global energy policy challenges in the light of the new set of energy security issues (presented in the previous chapter). The main argument is that the existing network and institutions cannot give an effective and efficient response on these issues. Some authors argue for the application of "smart"[44] rules within global energy policy, while others underscore the importance of global institutions and address their shortcomings trying to fill in organisational gaps[45]. However both approaches are intrinsically policy oriented both in their aims (to develop an applicable solution to the identified problem) and their

[42] Sjibren De Jong, "Towards Global Energy Governance: How to Patch the Patchwork," in *International Development Policy: Energy and Development*, ed. Gilles Carbonnier (New York: Palgrave Macmillan, 2011).

[43] Goldthau, "A Public Policy Perspective on Global Energy Security."

[44] Ibid., 65. Under this Goldthau means the proper management of market-based mechanisms by governance instruments. For a detailed description see [Andreas Goldthau, Jan Martin Witte, and Wolfgang H. Reinicke, *Global Energy Governance: The New Rules of the Game* (Berlin, [Germany]; Washington, D.C.: Global Public Policy Institute; Brookings Institution Press, 2010).].

[45] Dubash and Florini, "Mapping Global Energy Governance"; Ann Florini and Benjamin K. Sovacool, "Who Governs Energy? The Challenges Facing Global Energy Governance," *Energy Policy* 37, no. 12 (December 2009): 5239–5248, doi:10.1016/j.enpol.2009.07.039; Lesage, Graaf, and Westphal, *Global Energy Governance in a Multipolar World*; Jong, "Towards Global Energy Governance: How to Patch the Patchwork."

methodology (the microeconomics-based evaluation of the issues and the underlying presumption on the materialistic rationality of the actors).

Therefore in an inquiry from an International Relations Theory aspect, the framework of global energy governance cannot grant the required theoretical framework as its scope is different from the rather descriptive IR Theory and stands closer to Foreign Policy Analysis. Although it also cannot be ignored completely in such research, because many of its basic presumptions are have to be taken into consideration – as we have seen market failures constitute an essential part of energy (security) issues, therefore a theoretical research also has to be able to deal with them, if it's aim is to provide explanation of processes related to international energy security relations.

Another shortcoming from the point of view of the current thesis is the lack of the regional level within the level of analysis of global energy governance. This framework deals only with the global tier and institutions operating in this sphere. Several authors[46] do mention institutions and cooperations existing on the regional level as relevant actors in the study of global energy governance schemes but this layer stays mostly untouched by the literature. This lack of interest is hard to explain since "[O]ne of the most widely

[46] Timothy M. Shaw, "Conclusion: Energy Governance, Global Development and New Research Agendas," in *Dynamics of Energy Governance in Europe and Russia* (Houndmills, Basingstoke, Hampshire; New York: Palgrave Macmillan, 2012), 265–281; Andreas Goldthau, Wade Hoxtell, and Jan Martin Witte, "Global Energy Governance - The Way Forward," in *Global Energy Governance: The New Rules of the Game*, ed. Andreas Goldthau and Jan Martin Witte (Washington, D.C.: Brookings Institution Press, 2010).

noted and counter-intuitive features of the contemporary 'global' era is that it has a distinctly regional flavour."[47].

Global energy governance framework proves to be a useful tool to understand many aspects of mechanisms and institutions operating on the global level of energy policy, however it cannot cover every aspect of energy security therefore an inspection and theorization from different angle is also required to develop a framework integrated in international relations theory.

3.2. Energy Security from an International Relations Theory Perspective

Energy security emerges from the field of other policy areas due to its vital significance and ontological nature, as I was trying to point out in the first chapter of the thesis. Adding this fact to the globalized nature of prevailing energy security issues shall lead to the conclusion that energy security is a factor of international political relations of such significance and weight, that it had to be addressed by IR-study as well both on practical and theoretical level. In International Relations Theory security studies has a rich literature and security in general is at the very core of the study of IR Theory, therefore the relative ignorance[48] of the field of energy security from this perspective is questionable. In the following I will aim to give an overview on the classical

[47] Mark Beeson, "Rethinking Regionalism: Europe and East Asia in Comparative Historical Perspective," *Journal of European Public Policy* 12, no. 6 (December 2005): 969, doi:10.1080/13501760500270620.

[48] Dannreuther, *International Relations Theories: Energy, Minerals and Conflict*.

understanding of energy security in terms of the (neo-)realist and (neo-)liberal schools addressing the mainstream of current IR theories and showing their incompetence to serve as a theoretical framework for understanding energy security in IR. Following this a possible solution will be outlined with the introduction of the constructivist approach on (energy) security and the concept of Regional Security Complexes applied to energy security.

i. Mainstream IR Theories on Energy Security

A theory aiming to frame an adequate answer to the core question of thesis concerning the existence of regional energy security cooperations has to be able to adapt to the complexity of energy security to the greatest extent possible. This requirement is a demanding one since IR theory in general is a study of political relationships and the toolset of IR study is also mainly stems from political studies. To address a policy field like energy security with economic and social factors included requires a flexible theory with wide potential outreach on different fields. The definition of energy security proposed above describes the fields such theory needs to be able to cover. Furthermore – in order to be proven applicable to the question raised in the thesis – the proper theory shall encompass the regional level as well within its levels of analysis.

a. Realist understanding on (energy) security

The conceptualization and study of security traditionally roots in the political realist philosophy as one of the main realist assumptions is the necessity for fighting for

survival and the constant ontological risk provided by the anarchical environment. Therefore the analysis of the nature of security is essential in describing the international sphere according to realism. The neo-realist[49] tenets include the following basic arguments: 1. International system has an anarchic nature that forces the actors to always actively ensure their security against every other actor – therefore structure defines the behaviour of the actors; 2. The primary actors are states who are unitary and act rationally; 3. The struggle for the maximization of power (and security at the same time) generates conflict and the outcome of these conflicts is decided by the distribution of capabilities and major superpowers[50].

Energy (security) as a factor could demand its place within the capabilities a state can acquire or strive for. However in terms of capabilities neo-realism places its focus almost exclusively on the military capabilities of a state, and grants less attention to economic or even environmental sector (however does not completely disregards these, see[51]). Therefore energy is not a constitutive feature of capabilities able to interfere meaningfully in the conflicts created by the structure of the system[52] and as a consequence energy security cannot interfere with the basic security concerns of states –

[49] Neo-realism can be seen as the most contemporary and encompassing school of realism therefore it is reasonable to refer to it in the followings.

[50] Steve Smith, "The Contested Concept of Security," in *Critical Security Studies and World Poltiics* (Boulder: Lynne Rienner Publishers, 2005).

[51] Robert Gilpin and Jean M. Gilpin, *The Political Economy of International Relations* (Princeton, N.J.: Princeton University Press, 1987).

[52] Waltz presents this through arguing that there was a continuity of Western strategies following the oil shocks of 1973. Kenneth Waltz, *Theory of International Politics* (Reading Mass.: Addison-Wesley, 1979).

given that it doesn't affect military capabilities. However it is far from being straight forward that in certain ways energy security could not be addressed within a neo-realist framework, but it is a solid argument that neo-realism cannot encompass the variety of issues and the complexity constituting energy security as it was conceptualized earlier; environmental and social security as well as the ability to integrate market failure approaches fall far from the reach of the neo-realist theory.

b. Liberal understanding on (energy) security

Liberal theory pays less attention to security problems; it is usually not even considered to be part of international security studies besides the realist-constructivist axis. However concerning energy security as a result of the affection of liberal thinking to economic issues (and interdependencies) it seems relevant to examine this school as well.

The assumption constituting the core of liberalism (and through that neo-liberalism which is more IR-oriented than classical liberalism) is the possibility of honest and stable cooperation between actors within the international sphere. Neo-liberals (mainly the institutional ones) tend to explain this by the utilitarian toolset of game theory[53]. But neo-liberals also tend to take a normative position while arguing for a non-zero-sum game based IR perspective, as it is reflected in their core arguments: 1. "Amity

[53] Robert O. Keohane, *After Hegemony: Cooperation and Discord in the World Political Economy* (Princeton, N.J.: Princeton University Press, 1984).

of democracies"; 2. "Free trade for free countries"; 3. "The importance of interdependence"; 4. "International Institutions"; 5. "The Value of Community"[54].

In terms of energy issues neo-liberalism tends to focus following the premises above on the illiberal practices and mechanisms pursued by governments and firms on one hand, and on providing liberal prescriptions to overcome these and different, international energy issues on the other[55]. Energy security issues in the neo-liberal understanding are in constant interaction with certain perceived values and ideas states and the international community should follow to achieve security. In many ways this approach can prove to be fruitful – the institutionalist framework can certainly help to understand the way how and reasons why international institutionalized cooperations form. Also it can be argued that a properly working global energy market (of primary and secondary products) could erase or mitigate many energy security issues. However market imperfections prove the opposite – and in most cases *laissez-faire* is not an option to fight market failures, but governmental intervention is causing markets to distort. Also democratic values are hard to be taken into account from an energy security perspective – as I have argued earlier, illiberal perversion of politics and economics are assumed to exist (e.g. resource course, rentier states), but the nature of energy does not necessitates that democratic government could fight against energy poverty more successfully than autocratic ones.

[54] G. John Ikenberry, "Why Export Democracy? The 'Hidden Grand Strategy' of American Foreign Policy'," *The Wilson Quarterly* 23, no. 2 (1999).

[55] Dannreuther, *International Relations Theories: Energy, Minerals and Conflict*.

ii. The Copenhagen School's Interpretation on Security

Besides realism the constructivist[56] tenet is usually considered as the main theoretical framework for studying security within the field of international relations. The most prominent representative is the Copenhagen School which started working while a widening in the concept of security was actually observable as a gradual shift from a narrow, military- and state-centred security concept to a wider one encompassing the environmental, economic or even social aspects and regions as the level of analysis was taking place during and following the final years of the Cold War[57]. Both of these changes are also organic parts of the changed (and still changing) understanding on energy security.

a. Sectors of security

Using this observation as a starting point Buzan in his early work asserts that the widening field of security related issues can be divided into different sectors. These sectors are "identifying specific types of interaction"[58], i.e. these sectors are not static but rather dynamic and the interaction-element in the definition allows the unification of different levels of analysis and actors (or referent objects) into one framework. Buzan

[56] The schools foundation is usually connected to Wendt's famous article [Alexander Wendt, "Anarchy Is What States Make of It: The Social Construction of Power Politics," *International Organization* 46, no. 2 (1992): 391–425.], in which he argues that the material reality agents exist and act within is constructed by the interaction between meanings and interpretations of actors and objectively existing but subjectively experienced reality of the world. This concept translates into security terms by adding identity and social security as factors of the security of the main referent object, namely the states. Also the concept of securitization derives from the possibility of the social construction of the meaning of security.

[57] Barry Buzan, Ole Waever, and Jaap de Wilde, *Security: A New Framework for Analysis* (Boulder (Colo.); London: Lynne Rienner publishers, 1998).

[58] Ibid., 7.

defines the five security sectors as follows[59], which was later extended by reducing the state-centrism of the original classification[60]:

1. Military – the traditionally core element of security which is directly related to physical, existential security and as it is so "[…] military threats are traditionally accorded the highest priority in national security concerns"[61].
2. Political – threats of this kind are aimed at the sovereignty or sometimes the ideology of a certain state or actor. These can be both intentional initiated by other actors or could arise from structural reasons as well[62].
3. Economic – this sector is probably the hardest to grasp, because existential threats are rare to identify in this field. However "[…] national economy is on one sense part of the physical base of the state. But it is also strongly connected to the organizing ideology and institutional components […]"[63]. Existential economic threats do exist, but unless these threaten the survival of the population, they do not step outside of the realm of the standard issues of the economy[64]. Later Buzan and Hansen softened and widened the definition of economic security as the "access to the resources, finance and markets

[59] Barry Buzan, *People, States, and Fear: an Agenda for International Security Studies in the Post-Cold War Era* (Boulder, CO: L. Rienner, 1991).
[60] Buzan, Waever, and Wilde, *Security: A New Framework for Analysis*.
[61] Buzan, *People, states, and fear*, 117.
[62] Buzan, *People, states, and fear*.
[63] Ibid., 125.
[64] Buzan, Waever, and Wilde, *Security: A New Framework for Analysis*.

necessary to sustain acceptable levels of welfare and state power"[65]. This definition encompasses the different layers and actors of economy more effectively; however by introducing the phrase "acceptable level" its practicality becomes questionable.

4. Societal – this sector is even less solid than economy and relates to political security in many aspects, as it covers the processes and actions that threaten collective identities with the ability to function independent of the state – culture, language, traditions, religions, etc[66].
5. Environmental – or ecological security refers to the "maintenance of the local and planetary biosphere as the essential support system on which all other human enterprises depend"[67]. These issues by their nature require collective security approach in that way distancing it from the reach of states as referent objects.

b. Securitization

The main referent object (whose security is concerned and is to be secured by the legitimization of breaking the everyday rules – see later) in this concept is generally the state, i.e. security issues within the range of the sectors cause existential threat to the state itself, even if the state is not the only or not even the main referent object. The

[65] Barry Buzan and Lene Hansen, *The Evolution of International Security Studies* (Cambridge [U.K.]; New York, N.Y.: Cambridge University Press, 2009), 442.
[66] Buzan, Waever, and Wilde, *Security: A New Framework for Analysis*.
[67] Buzan and Hansen, *The Evolution of International Security Studies*, 450.

sectors constitute the main elements of modern statehood – sovereignty (in terms of politics and identity), physical and social security of the people living on its territory, sustainability of welfare and the environment. The central role of the state and government means that the definition of security and related decisions will be political.

An issue can be non-politicized, if a state does not deal with it and it isn't made an object of public debate; politicized issues require governmental decisions and resource allocations therefore they become part of public policy; securitized issues are "presented as an external threat, requiring emergency measures and justifying actions outside the normal bounds of political procedure"[68]. The accent in the case of securitization is on the presentation of the issue as an existential threat by speech acts (rhetoric acts with aim of altering the interpretations and perceptions of the receivers) that the audience accepts, allowing the securitizing actor to manage to "break free of procedures or rules he or she would otherwise be bound by"[69]. The breaking of rules is not required, only the legitimacy, the possibility granted for such an act.

Securitization on the international level defines a less radical process, it means "to present an issue as urgent and existential, as so important that it should not be exposed to the normal haggling of politics but should be dealt with decisively by top leaders prior to other issues."[70]. This distinction between the domestic and international level is

[68] Buzan, Waever, and Wilde, *Security: A New Framework for Analysis*, 23–24.
[69] Ibid., 25.
[70] Ibid., 29.

derived from the different capabilities and contingency of states in these levels (i.e. the ability to frame policies and coarse their execution).

c. Regional Security Complex Theory

The Copenhagen School argues that international securitization of particular issues will be most likely happen on regional level. The study of regional level is required, because when examined isolated, there is not much to say about the security of an actor, and the global arena is too wide to allow a view on actors and actions without global reach[71]; furthermore the way of how certain groups of actors perceive the same threatening phenomena varies significantly, therefore these issues cannot be declared general and global from the perspective of the associated meanings. In terms of security, Buzan defines regions as "distinct and significant subsystem of security relations exists among a set of states whose fate is that they have been locked up into geographical proximity with each other"[72]. The basic assumption is that physical neighbourhood (or proximity) enhances the security links of the states (and other units) to a level where their different securities cannot be examined independently from each other[73].

This close interdependency of security issues is also interrelated with the historical context of security in the region. Patterns of amity and enmity between actors confined in a well-defined geographical setting constitute a complex of regional security

[71] Buzan, Waever, and Wilde, *Security: A New Framework for Analysis*.
[72] Buzan, *People, states, and fear*, 188.
[73] Barry Buzan and Ole Waever, *Regions and Powers: a Guide to the Global Security Order* (Cambridge: Cambridge University Press, 2003).

understandings[74]. Classical security complexes are defined therefore as "a set of states whose major security perceptions and concerns are so interlinked that their national security problems cannot reasonably be analysed or resolved apart from one another."[75]. These perceptions or understandings presented to the international/regional community are results of the political processes, including securitization, within the actors – states.

However this early definition of classical security complexes was too state-centred and oriented to the military and political sector, therefore the opening of the theory was required[76]. The concept of Regional Security Complexes was divided into two complementary approaches[77]:

1. Homogeneous complexes are defined by different security issues operating within specific sectors and determining the types of units (e.g. states are the main actors within the military complexes concerned with the use of physical force).
2. Heterogeneous complexes do not lock certain security issues into the realm of certain sectors but approve the interaction between various sectors and actor-levels within the regional logic.

[74] Buzan, *People, states, and fear*.
[75] Ibid., 190.
[76] Buzan, Waever, and Wilde, *Security: A New Framework for Analysis*.
[77] Ibid.

Whether a certain security issue will be contained by a related sector or an understanding of interconnectivity and sectoral interdependency will be attached to it, depends on besides the historical context of amity and enmity and the distribution of physical capabilities in the region the way and success of its securitization within and by the security actors of the region. Since the concept of securitization allows the same mechanisms creating a securitized issues can also desecuritize it[78], and capabilities just as amity and enmity are a subject of significant and dynamic change, general issues causing security threats cannot be assigned into the isolated realm of their respected sector disregarding this possibility of change. Actors, referent objects, their environment and concepts on security can change, therefore - in principle - the best fitting alternative of regional security complex theory needs to be determined on a case-by-case basis[79].

On the other hand several issues have particularly stable nature and common understanding (e.g. military threats), certain features of these security issues are widely accepted and shared both in time and space therefore it is not necessary futile to try to outline a model for understanding the behaviour of a certain security issue within the regional security complex theory. The goal of the following sub-chapter is to examine to what extent energy security can be generalized within this theoretical framework and what implications and conclusions are to be drawn.

[78] Ole Waever, "Securitization and Desecuritization," in *On Security* (New York: Columbia University Press, 1995).

[79] Buzan, Waever, and Wilde, *Security: A New Framework for Analysis*.

iii. Application of RSCT on Energy Security

In order to answer the question why regional energy security cooperations are formed, a proper theoretical background needs to be set up. It has been argued previously, that from the security point of view classical theoretical schools concerned with the security dimension of international relations cannot address the issue of energy security adequately. A theoretical approach – the understanding of the Copenhagen School on security within the constructivist tenets – was presented that is assumed to possess the features required for a thorough understanding of energy security as political and policy problem, and is also capable to encompass the regional level, other theories tend to miss. However a deeper analysis is required in order to build a model that aims to give an explanation on energy security integrated within this theory.

a. Securitization of energy security

The relationship between energy security and the securitization of energy might seem paradoxical at first sight – securitization of security should be a contradiction in itself. However if the definition of securitization is recalled, its core is the intentional shift of a policy issue from the realm of politics (or from a depoliticised space) to a perceived 'pedestal' where its existential threat is no longer doubt and therefore extraordinary measures aiming to resolve this situation and minimise such threat are legitimised. Energy security is in fact an ideal situation, where every factor it embodies prevails. The issue is the lack of this security and the presence of the threat what can be securitized.

Previously I have argued that energy security due to its ability to entail ontological or existential threats to the referent objects (in the current inquiry mainly states) is necessarily part of political discourse, meaning that on the scale where issues are scattered between depoliticization and securitization, energy security cannot be 'degraded' to among the depoliticized issues. Furthermore on the ground of its nature as a potential threat, it frequently acquires a place on the top of the political agenda. On that score the process of the securitization of energy security requires presumably less effort devoted to the speech acts making the process less demanding.

It is important to define what could be understood as extraordinary measures in case which are legitimized, the process of securitization can be considered successful. A general criticism of the idea of securitization that its authors do not give a proper definition for it, and it is not realistic to establish one taxative list of measures qualified as extraordinary in case of the securitization of energy security as well, it can and should be set up on a case-by-case basis. However one vague boundary can be drawn: since energy should be in an ideal case a more-or-less simple commodity regulated by markets, any legitimized act that radically contradicts the basic operability of the market and the transactions can be usually considered as such[80], however as it has been argued, in practice energy is only partially market regulated, especially from a rather state-

[80] Bas R. Percival, "The Risk of Energy Securitization on the Eurasian Continent" (Clingendael International Energy Programme, July 2008).

oriented point of view, thus the confinement of the market is not necessarily signifies the breaking of the rules of the normal procedures.

b. Securitization in and between different sectors

It has been shown that energy security is composed by several factors, each carrying the possibility of an existential threat. The process of securitization may take therefore different forms depending on the exact content of the speech act the nature of the particular threat (supply, access, environment, etc.). One of the main advantages of approaching energy security through the theoretical framework by the Copenhagen School is that its sectoral approach is able to flexibly address this range of possible threats.

Energy security issues appear most likely in the economic and environment sector[81]. The tight connection between the environmental sector and energy security is implicit – current energy production trends point toward an environmental-ecological catastrophe on global, regional and local level. The economic sector is however less unequivocal. Security of supply and access (by the actors of the economy) are undoubtedly included, as well as the energy survival of the companies (e.g. National Oil Companies) crucial for a state's energy sector[82]. However demand security and price

[81] Lubomir Mitev, "How Is Energy Securitized?," *Lubo Mitev's Blog*, August 2, 2010, http://lubomitev.wordpress.com/2010/08/02/how-is-energy-securitized/.

[82] Buzan, Waever, and Wilde, *Security: A New Framework for Analysis*.

stability can also be vital factors for certain states or significant firms shall not be excluded.

It is less likely that energy security would be securitized referring to the military, political or social sectors in the speech acts. However these can also be affected by energy security issues – military capabilities are dependent on energy as well; adequate amount of feedstock-reserves for an eventual military conflict is of the highest priority. In extreme cases the political and even cultural-social identities of a state or nation can also be threatened by different energy security issues. One example could be Tuvalu a small island-country which will disappear by 2050 based on the projections due to the rising sea levels induced by the climate change[83] - losing the territory questions statehood, citizenship and in long term nationality and identity as well. The case of the conflict between Moldova and Transnistria could also be cited, since on the long run both territories' political system and identity relies strongly on the energy supply security provisioned by Russia accompanied by distinctive political pressure[84].

This shows that although energy security is mostly connected to two sectors (economy and environment), the complexity of it, the high level of interdependency between sectors, as well as the less distinct nature of the economic sector all point

[83] Anwen Roberts, "What Will Become of Tuvalu's Climate Refugees?," *Spiegel Online*, September 14, 2007, http://www.spiegel.de/international/world/islanders-without-an-island-what-will-become-of-tuvalu-s-climate-refugees-a-505819.html.

[84] Ioannis F. Vichos and Anna Adaktilidou, "'Moldova's Energy Strategy and the "Frozen Conflict" of Transnistria'," *EKEM European Energy Policy Observatory*, n.d., http://www.ekemeuroenergy.org/en/index.php?option=com_content&view=article&id=179:moldovas-energy-strategy-and-the-frozen-conflict-of-transnistria&catid=45:caspian-sea-black-sea-and-south-east-europe&Itemid=69.

towards the difficulty of confining energy security within the well-defined domain of one or two sectors.

Accordingly the typical (securitizing) actors and referent objects are also hard to define. In uttermost cases the state's security is the implicit referent object, but securitizing actors can be firms, politicians, scientist and civil organizations as well. However as the main focus is on the level of the regional security complex, the primary actors are the ones who have influence over the domestic securitization process and its interpretation, management on the regional level as well, i.e. mainly politicians and government officials.

c. Regional Energy Security Complexes

In a region where the constituent states share closely interdependent security conditions and understandings of energy, Regional Energy Security Complexes[85] are formed. In general regional security complexes the densely interlinked interpretation of a certain threat is shaped by the distribution of physical capabilities within the region and the historical context of amity and enmity. This translates to energy security as follows.

The existence of a regional energy security complex requires that actors (states) of a particular region have such level of interdependence or interconnection between their energy security situations, that the energy security of these actors cannot be examined fruitfully without taking into account the proximate units as well. The main reason

[85] Jack Sharples, "Russo-Polish Energy Security Relations: A Case of Threatening Dependency, Supply Guarantee, or Regional Energy Security Dynamics?," *Political Perspectives* 6, no. 1 (2012): 27–50.

behind this is the geographical and geopolitical nature of energy – its production, distribution, consumption and the related environmental concerns are usually immobile or geographically determined.

The geographical definiteness is best traced when studying the regional capability variable. The main constitutive factor of it in case of energy security is the regional market. Global markets in energy exist only for crude oil, electricity and natural gas are traded chiefly in regional markets, distributed through interconnectors between two states creating a transmission network. The upstream, production sector can also have regional relations: oil and gas reserves, geothermal sources, rivers are usually shared between countries, therefore the exploitation or environmental concerns affect all of them. Also the external supply disruptions or production failures within the region affect the members of the potential RESC.

The amity/enmity variable in terms of energy security can refer to the history of energy (source) transactions between countries within the region, but it can also encompass the general political(-cultural) relationships between the states having positive or negative external effects on the energy (security) relations. However this latter dimension shall not be overestimated – energy relations are relatively rarely affected by temporary or even long-range enmity patterns, because these relations are usually interdependent on one hand, and energy trade is usually transacted by private actors following market rules. An illustrative example is the oil and gas trade between the

Soviet Union and NATO-member European countries during the Cold War, which was never suspended, neither party used it as a political tool against the other, not even during the tensest periods.

Amity and enmity plays a more significant role in determining the form the regional energy security complex will take. In general it might be a valid assumption to take that regional security complexes tend to follow existing institutionalized cooperation or integration system in the region, since the recognition of the interrelated nature of security is easier when channels of communications are more opened on political and expert level (i.e. an organization providing space for discussions exists). Furthermore energy security is a highly sensitive issue for every government; international cooperation does not thrive in this field because every state is exceptionally keen on suffering even a minimal loss of sovereignty and authority over its energy security policy. Therefore a RESC that is recognized by the partners and is shaped into any kind of formalized, institutionalized cooperation will likely take place within the framework of an already existing regional cooperation mechanism (integration, intergovernmental forum, etc.)[86].

The factors presented above are mainly external ones, given by the environment (although they are in persistent and active interaction with each other and other factors).

[86] This idea without the detailed reasoning appears in [Mikko Palonkorpi, "Energy Security and the Regional Security Complex Theory - Draft," 2007, http://busieco.samnet.sdu.dk/politics/nisa/papers/palonkorpi.pdf.]. However the author of the draft explicitly requests not to cite his work therefore he shall take no responsibility for this statement.

The factors shaping the RESC from the inside are actors and the sector(s) involved. I have already touched upon actors previously, however an important classification is set up on the ground of the participant-structure of the security complexes, providing two types: standard and centred security complexes. Standard security complexes are anarchical and the members are more-or-less equal in power; centred security complexes are rather unipolar, or build upon excessive and deep institutionalization creating inner structure to provide centrality[87]. From the point of view of energy security such categorization, based on the participating actors can also be made, but only from a supply-oriented angle (narrowing the understanding of energy security within such RESCs). Either selecting by energy carriers (oil, gas, electricity, etc.) or taking energy as a unitary concept, states can be net producers or consumers, and can form three types of RESC: 1. Consumer bloc – securitization of supply of energy against one or more suppliers; 2. Supplier bloc – securitizing demand security and price stability; 3. Stable transaction bloc – both consumers and producers are participants securitizing trade against e.g. blocking transit countries. These categories however can only cover specific RESCs but not give an overarching classification.

Regional security complexes have different typification based on the addressed sector as well. The two types are homogeneous and heterogeneous security complexes based on the number of sectors – in the former the securitization is concentrated within

[87] Buzan and Waever, *Regions and powers*.

one sector, the latter abandons this lock in and assumes that interaction exists between sectors[88]. I have argued that energy security is a very complex and multifaceted issue and presented that in radical or less radical cases energy security can address all five defined sectors, but environment and economic sectors practically always. Certainly the exact subject and content of the speech acts during the securitization process within countries coagulating eventually on a regional level can be very narrow and specific. However due to the complex nature of energy security, the widening of the subject of securitization is less likely avoidable, due to the very close interdependency of different aspects of energy security

In this chapter I aimed to present a wide theoretical framework able to address the previously outlined energy security definition from an international perspective. Global energy governance reacts on the current challenges of energy security but cannot incorporate considerations outside its market failure based approach, as well as focuses almost all of its attention on the global level missing the regions as level of analysis. Traditional IR understandings of (energy) security also cannot embody the wide spectrum of energy security. In contrast the Copenhagen School's approach to security is able to grasp the extraordinary characteristics of energy security and can also address

[88] Buzan, Waever, and Wilde, *Security: A New Framework for Analysis*.

the new challenges, provides flexibility in terms of actors and subjects and offers a toolset to analyse the regional level as well.

Chapter 4. Application – the Visegrád Group (V4)

The concept of Regional Security Complex Theory through its sectoral and regional approach and the process of securitization can grasp the multifaceted nature energy security and also allows elaborating on different actors and referent objects required to understand the multiple layers of energy security.

The simplified model based on this approach addresses energy security and its regional level as follows: energy security as a policy issue is able to impose existential threat on the state and its constituent elements. As such it is always a crucial, politicized issue and the efforts required to securitize it (and therefore acquire legitimacy for decision makers for taking extraordinary steps) are minimal. The exact subject and the referent object of securitization, the sector addressed depends on the subject of the speech acts, therefore the interpretation of energy security is socially constructed, however in this case it shall be close to the 'objective reality' since factors of energy security are easy to be quantified and analysed objectively. However perceptions are also altered by the regional amity/enmity nexus in terms of energy relations and in general as well. As the concept of energy security and its management is state-centred and the referent objects of securitization are also usually states, on the regional level the different securitizations of (national) energy security situations meet on intergovernmental level. The regional level is emphatic due to the typically regional structure of energy markets and importance of geographic environment. If the content

of the securitization processes on national level meet on the regional and energy security of the states of the region seems inseparable from each other, a Regional Energy Security Complex exists. If it is recognized by the states, they may start to interpret their energy security within this regional framework plausibly utilizing the potential in regional energy security cooperation to fight the cause of the existential energy security threat. In case regional (institutionalized) cooperation already exists, the Regional Energy Security Complex will likely be connected to it or will operate formally within its framework.

In the current chapter this model outlined above will be applied to a specific case. The logic behind the application and case selection is logic of the "most typical scenario" as indicated in the chapter on research design. The case of the Visegrád energy cooperation can be considered as an easy or most typical one, because it was formed following the European gas crisis in and after 2006. A regional cooperation was already existing (however with less intensity) and the states of the region have similar physical capabilities.

The case study will be carried out by following the logic of process tracing. In Checkel's understanding process tracing "means to trace the operation of the causal mechanism(s) at work in a given situation."[89]. The following analysis aims to outline the amity enmity patterns and physical environment relevant for understanding the energy

[89] Jeffrey T. Checkel, "Process Tracing," in *Qualitative Methods in International Relations: A Pluralist Guide* (Palgrave Macmillan, 2008), 116.

security relations within the region. Following that I will try to verify the hypothesis that following the energy crisis of 2006 and later, successful securitization of energy security happened within the countries what is also represented in political documents and declarations both on domestic and regional level. I will try to trace the securitization process on the international level and the recognition of the interrelated nature of security on the regional level, but not providing an analysis on how exactly the process of securitization occurred in certain countries, since the basic logic of the inquiry is positioned from an international relations perspective and therefore it is less capable to understand the processes and logics of particular domestic political systems. Following this the established energy security cooperation framework will be compared to the outlined model of Regional Energy Security Cooperations.

4.1. History and Evolution – Patterns of Amity and Enmity

Visegrád Cooperation or Group (V4) is a regional intergovernmental framework created to coordinate the steps of its four (by the time of the foundation three) members - Poland, Czech Republic, Slovakia and Hungary – on the way forward to the heart of the new world order following the collapse of the Warsaw Pact. The cooperation officially was formed in the February of 1991 in order to foster the members' accession to the western bloc – to the NATO at first and following that to the European

Community[90]. Although the initiative seemed rational in itself, it served a double, underlying purpose: the transitional governments wanted to gain some domestic legitimation through effective and inexpensive foreign policy success on one hand, and also tried to underpin their newly acquired interdependence by formal bindings[91]. Therefore the cooperation lacked any functional or policy level, the meetings between the heads of the states became formal only few years following the foundations and the only institution was long the Visegrád Fund financing common cultural and educational projects. The members at the beginning feared to confront their different aims and capabilities apart from the mentioned long-term goals, and also to settle a framework violating any participant's wide comfort zone – necessitating a strongly tied cooperation[92].

During periods of upheaval and downfall in the intensity of the cooperation, the V4 remained in a strictly political form constituted by regularized ministerial and

[90] The Declaration establishing the cooperation lists the following goals:

- "Full restitution of state independence, democracy and freedom;
- Elimination of all existing social, economic and spiritual aspects of the totalitarian system;
- Construction of a parliamentary democracy, a modern state of law, and respect for human rights and freedoms;
- Creation of a modern free market economy;
- Full involvement in the European political and economic system, as well as the system of security and legislation." ["Declaration on Cooperation Between the Czech and Slovak Federal Republic, the Republic of Poland and the Republic of Hungary in Striving for European Integration," February 15, 1991, http://www.forost.ungarisches-institut.de/pdf/19910215-1.pdf.]

[91] Adrian Basora, *The Value of the Visegrad Four*, IssueBrief (Atlantic Council, February 2011), http://www.acus.org/files/publication_pdfs/403/021411_ACUS_Basora_VisegradFour.pdf.

[92] Judit Hamberger, "Közép-Európa Politikai Dimenziójának Megvalósítási Kísérlete: a Visegrádi Együttműködés (V4) [An Attempt for Working Out the Political Dimension of Central Europe: The Visegrad Group (V4)]," *Külügyi Szemle* 9, no. 2 (2010): 35–51.

(minister-)presidential meetings, the one and only institutionalized part of the Visegrád Cooperation[93] is the Visegrád Fund established in 2000 in order to support "the development of cooperation in culture, scientific exchange, research, education, exchange of students and development of cross-border cooperation and promotion of tourism"[94]. Contrary to this milestone in the history of V4, following the members' NATO accession in 1999 serious issues arose related to EU-accession between the members due to the race for advantageous positions in Brussels – the countries viewed each other as rivals in the process and the cooperation seemed to fall apart[95]. It was apparent that the cooperation had to be redesigned. In 2002 thanks to the first rounds of discussions over this issue an Expert Working Group on Energy was formed and held session twice a year[96]. However this side did not get centrepiece in the V4, the participants felt that following the EU-accession their framework has to be readjusted. This shows their Declaration in Kromeriz from 2004 (the year they joined the EU): „The co-operation of the Visegrád Group countries will continue to focus on regional activities and initiatives

[93] This could raise the question, why does the thesis bother with the Visegrád Group, if it is not institutionalized as the other three cases do. Although the criticism seems right, we have to note that the Visegrad Cooperation has such an intense history in the region that even without a Secretariat, it is institutionalized in the 'administrative heads' of the country. Furthermore the rotating presidency, the Fund, and the in practice institutionalized meetings of ministers, working groups constitute a system stronger and more formalized than many other formally institutionalized cooperations, therefore the analysis is valid.

[94] "The Structure of Visegrad Cooperation," 2006, http://old.visegradgroup.eu/main.php?folderID=830&articleID=4094&ctag=articlelist&iid=1.

[95] Csaba Törő and Károly Grúber, "A Visegrádi Négyek (V4) Európai Unión Belüli Együttműködésének Szempontjai És Eddigi Tapasztalatai [The Aspects and Experience of the Visegrad Four (V4)'s Cooperation Within the European Union]," *Külügyi Szemle* 9, no. 2 (2010): 52–70.

[96] Miroslav Starry, "Co-operation of Visegrád Four Member Countries (V4) in Energy," 2006, http://www.mpo.cz/dokument16509.html.

aimed at strengthening the identity of the Central European region; in this context, *their co-operation will be based on concrete projects and will maintain its flexible and open character*"[97].

It was a meaningful step toward a more functional and professional cooperation instead of the previous high-political one. However until 2006 this kind of cooperation did not get much weight and the members were busy dealing with the newly emerged issues in the EU framework. Until today the basic mechanisms of the V4 remained the same with the ones it operated back in 2004, except one important field – energy, which is not even mentioned in the cited Declaration.

4.2. Regional Energy Security – Common Risks

The energy security landscape of the Central-Eastern European region is far not favorable. The CEE countries are highly dependent on imports of conventional energy, both gas and oil, from a single source: Russia. They lag behind the EU average in renewable energy production and energy efficiency as well as energy poverty.

This of course applies to the Visegrád countries. The energy security situation of the Czech Republic, Slovakia, Hungary and Poland is "undoubtedly of utmost importance

[97] "Declaration of Prime Ministers of the Czech Republic, the Republic of Hungary, the Republic of Poland and the Slovak Republic on Cooperation of the Visegrád Group Countries After Their Accession to the European Union.," May 12, 2004, http://www.visegradgroup.eu/download.php?ctag=download&docID=35.

for all of the V4 countries."[98]. However this concern has multiple sources along the different factors presented in the energy security definition above.

The main energy security issue stems from the import dependency of the V4 countries on fossil fuels (oil and natural gas) from a single supplier (Russia) and on a single transit route (Ukraine and Belorussia)[99]. The importance of fossil fuels within the gross national energy consumption is shown in the table below.

2008 mtoe	Solid fuels		Crude oil and petroleum		Natural gas		Nuclear		Renewables		Total con.
CZ	19755	43,0%	9939	21,6%	7120	15,5%	6849	14,9%	2261	4,9%	45924
PL	54929	55,8%	25221	25,6%	12547	12,7%	0	0,0%	5615	5,7%	98312
HU	3054	11,5%	7353	27,8%	10561	39,9%	3822	14,4%	1634	6,1%	26424
SK	3985	21,5%	3981	21,5%	5166	27,9%	4309	23,3%	1013	5,4%	18454

Table 1: Consumption by energy sources in the V4 countries. Source: Eurostat

The particular importance of the fossil fuel imports is a result of four different factors:

1. Unsubstitutable nature of crude oil and natural gas. Oil and crude oil products are necessary for the transport sector and currently no other technology is able to substitute refined oil products. Natural gas is of vital importance not just because it provides a significant amount of electricity consumed, but it is

[98] Joanna Świątkowska, ed., "Energy Security of the V4 Countries: How Do Energy Relations Change in Europe" (The Kosciuszko Institute, 2011), 9.

[99] Andrej Nosko et al., *Policy Paper – Energy Security*, 2010, http://visegradgroup.eu/download.php?ctag=download&docID=139.

also the almost exceptional energy source used by the residential sector for heating and cooking purposes[100].

2. Lack of physical connections. The transboundary interconnector capacities of the region especially of natural gas are underdeveloped preventing the formation of a regional market (except the Czech Republic)[101]. Gas and oil networks are not properly connected to the Western-European markets therefore the region's countries are dependent mainly on the Russian oil and gas pipelines[102] (this network structure is an unfortunate heritage of the COMECON).
3. Lack of domestic reserves. The region is relatively poor in proven fossil fuel reserves (except coal) as it is presented in the table below, therefore substituting import with boosting domestic production is not a realistic option. Although Poland and Hungary might have significant amount of unconventional natural gas deposits, their extraction is not viable in the close future[103].

[100] Świątkowska, "Energy Security of the V4 Countries: How Do Energy Relations Change in Europe."

[101] David Grodzki, *Energy Security in the V4: Cooperation to Enhance Security and Development*, HIIA Papers (Budapest: Hungarian Institute of International Affairs, 2012).

[102] Due to the easier transportability of crude oil (shipping, railroads and even motorways) the supply security concern is less substantial, but existing, especially for Poland.

[103] KPMG Global Energy Institute, "Central and Eastern European Shale Gas Outlook" (KPMG, 2012).

	Crude oil (m bbl)		Natural gas (bcm)	
CZ	15,00	26,9%	3,96	44,3%
PL	155,00	98,7%	95,0	553%
HU	31,72	66,3%	8,01	71,3%
SK	9,00	20,5%	14,16	219%

Table 2: Proved oil and gas reserves in the V4 countries in absolute terms and in percentage of annual consumption. Source: CIA World Factbook

4. High level of energy intensity. The V4 economies are extremely energy intensive compared to other members of the EU (see figure below), meaning that a supply disruption or a significant and unexpected price increase cause serious economic problems and losses.

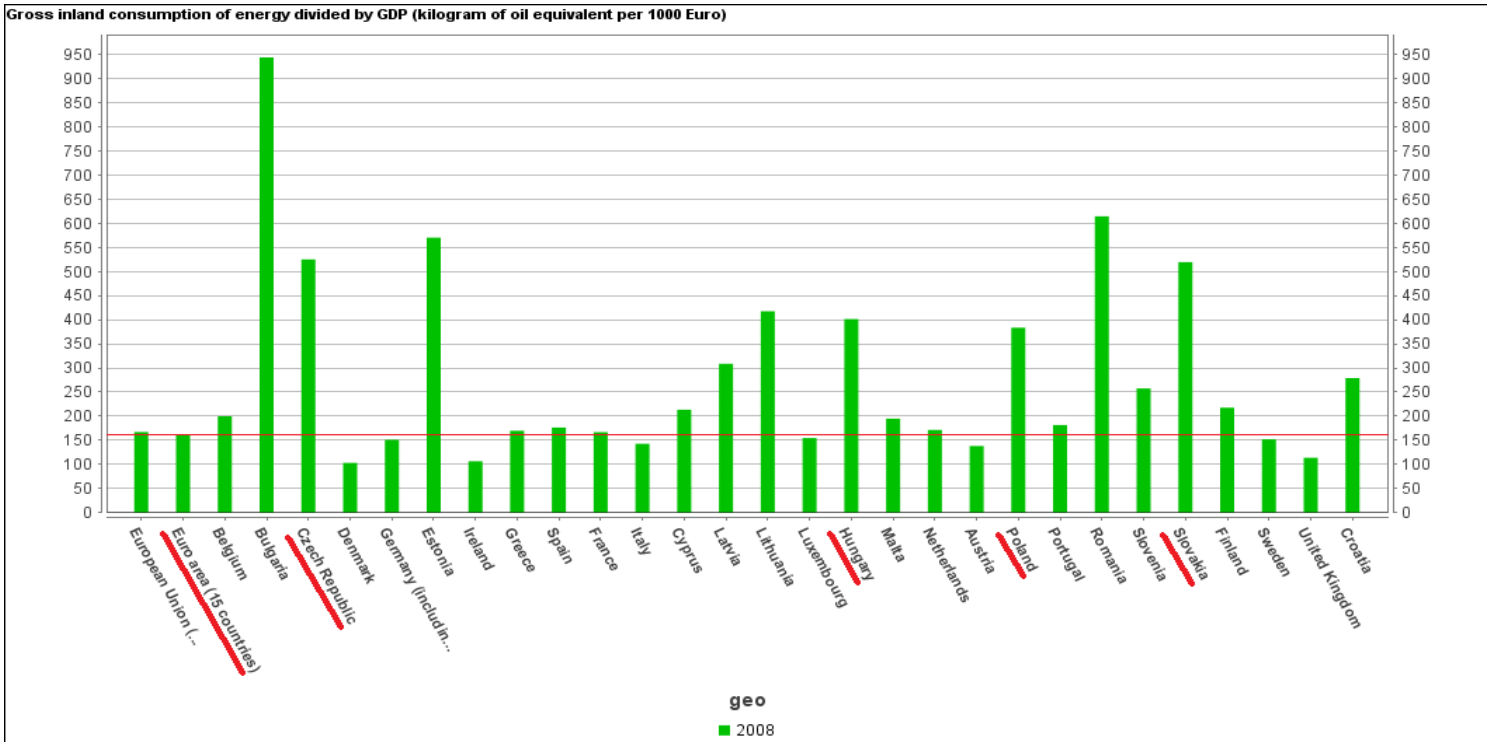

Figure 1: Energy intensity (gross inland energy consumption divided by GDP - toe/1000€) of the EU-25 in 2008. Source: Eurostat

Apart from direct supply security concerns long-term issues related to the environmental approach to energy security are also present. The IPCC in its 2007 report

projected a likely and significant increase in the winter and summer average temperature, decrease of rainfall and further harmful environmental consequences of climate change[104]. However the current main challenge for the V4 concerning sustainability of their energy sector is the increasing rate of renewable energy sources which is possibly destabilizing the existing electricity networks on the short run[105].

It also have to be noted that energy and/or fuel poverty is a common issue for the Visegrád countries, and although detailed research was not completed in this field therefore exact figures are missing, access to and affordability of energy consumption can possibly impose (social) security concerns, especially in cases if price and supply security is questionable[106].

Various energy security concerns can be identified in the context of the V4 region, related to the physical capabilities (production, consumption, transport, environment), however the main issue is classically understood supply security due to the monopolistic import source of necessary energy resources. This situation was however persistent since the dissolution of the Eastern Bloc, but regional energy security cooperation did not emerge, the regional security complex was not recognized inside the V4 framework,

[104] J.H. Christensen et al., "Regional Climate Projections," in *Climate Change 2007: The Physical Science Basis. Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge, UK; New York, NY: Cambridge University Press, 2007).

[105] Robert Zajdler, "Cooperation Between the Members of the Visegrád Group (V4) and Germany in Matters Related to European Electricity Infrastructure Development," *Rynek-energetyczny*, November 19, 2012, http://rynek-energetyczny.pl/?p=121.

[106] Sergio Tirado Herrero and Diana Ürge-Vorsatz, "Trapped in the Heat: A Post-communist Type of Fuel Poverty," *Energy Policy* 49 (October 2012): 60–68, doi:10.1016/j.enpol.2011.08.067.

however neither outside of it[107]. The generally recognized cause of the emergence of V4 energy cooperation was the series of natural gas disputes between Ukraine (and Belarus) and Russia between 2006 and 2009. The following section elaborates on how the V4 energy security cooperation can be understood in the RESC model. As I have mentioned, the exact process of the domestic securitization of the problem is not a subject of the current inquiry, I will use common documents and declarations of V4 member states to identify, whether the recognition of the strong interrelated nature of regional energy security has happened and if a common interpretation of energy security was developed.

4.3. The Roots of Securitization and Establishing the RESC Framework

Although the cooperation on regional infrastructure projects and energy issues was already in the mind of the 'founding fathers' [108], for one and a half decade practically nothing noteworthy did happen in this field – until 2006. Between 2002 and 2006 the Working Group on energy focused merely on information exchange, but as Europe started to realize that certain energy issues has to be dealt with urgently and in cooperation (the EU started to develop its energy strategy, the Commission issued the Green Paper on European Strategy on Sustainable, Competitive and Secure Energy)[109]. The winter of 2006 had a shocking effect both on Europe and the V4 especially due to

[107] Keith C. Smith, "Bringing Energy Security to East Central Europe – Regional Cooperation Is the Key," 2010, http://csis.org/files/publication/100402_Smith_BringingEnergySecurity_Web.pdf.

[108] Andrzej Jagodzinski, *The Visegrad Group: a Central European Constellation* (Bratislava: International Visegrad Fund, 2006).

[109] Starry, "Co-operation of Visegrád Four Member Countries (V4) in Energy."

the members' high dependency on (Russian) natural gas. The first gas crisis between Ukraine and Russia called everyone's attention on the dangers of the Russian supply and the Ukrainian transit monopoly, and also to the fact that both of these countries are able and willing to use their capabilities for their own purposes taking the interests of the European customers into account less than previously considered.[110] The gas crisis of 2006 had a minor effect on European customers and caused more fear than harm in the V4 region as well[111]; the major Western reactions articulated the importance of Ukraine's orange revolution and understood Russian action in light of the Ukrainian events[112].

On the level of the Visegrád cooperation, the first reflection on the situation was the Slovak presidency program for 2006/2007[113]. Within the previous program created by Hungary for 2005/2006 the short energy chapter addressed only certain market issues – liberalisation, interconnection of electricity grids and oil stock maintenance cooperation[114]. However the Slovak program highlighted i.a. "address the issue of diversification of energy supplies"; "secure transmission of energy as well as on diversification of energy sources and routes of transportation"; "development of

[110] Anita Orbán, *Power, energy, and the new Russian imperialism* (Westport, Conn.: Praeger Security International, 2008).

[111] Smith, "Bringing Energy Security to East Central Europe – Regional Cooperation Is the Key."

[112] Knut Magnus Koren and Tor Bukkvoll, *The 2006 Russian-Ukrainian Crisis: Causes and Potential for Repetition* (Kjeller: FFI, 2007).

[113] Note that the rotating presidency of the V4 cooperation takes shift on the 1st of July every year.

[114] "The Visegrad Group: The Czech Republic, Hungary, Poland and Slovakia | 2005/2006 Hungarian Presidency," accessed December 3, 2012, http://www.visegradgroup.eu/documents/presidency-programs/2005-2006-hungarian-110412.

strategic natural gas emergency reserves"[115]. Furthermore in a Declaration by the Prime Ministers of the V4 in October 2006 they "stressed that energy security is of major and strategic importance for the sustainability of economic development in Europe and called for a more coordinated approach in this field."[116]. This shift in the interpretation of energy and energy security is clear and it is a highly plausible hypothesis that a sudden an intensive securitization on the domestic level could have led to a similar result on the regional level as the states recognized the already existing but neglected regional security complex.

Following 2006 the institutional level was also affected: the Expert Working Group on Energy got more responsibilities: policy coordination, best practice exchange, forming initiatives, coordinating actions on EU-level. From this point for the Working Group "the main agenda [*was*] not exchange of information any more, but co—ordination of positions and elaboration of recommendations for solving particular problems in energy industry."[117] In the 2007/2008 Czech presidency program we find energy security already among the top priorities[118]. It has to be noted that neither the winters of 2007 and 2008 passed without minor gas disputes between Russia and

[115] "The Visegrad Group: The Czech Republic, Hungary, Poland and Slovakia | 2006/2007 Slovak Presidency" text, September 20, 2006, http://www.visegradgroup.eu/documents/presidency-programs/2006-2007-slovak-110412.

[116] "The Visegrad Group: The Czech Republic, Hungary, Poland and Slovakia | Declaration of the Prime Ministers of the Visegrad Countries Visegrad, Hungary, 10 October 2006," accessed December 3, 2012, http://www.visegradgroup.eu/official-statements/documents/declaration-of-the.

[117] Starry, "Co-operation of Visegrád Four Member Countries (V4) in Energy."

[118] "The Visegrad Group: The Czech Republic, Hungary, Poland and Slovakia | 2007/2008 Czech Presidency," accessed December 3, 2012, http://www.visegradgroup.eu/documents/presidency-programs/2007-2008-czech-110412.

Ukraine or Belarus, however significant supply disruptions in Europe did not follow these clashes.

The gas crisis of 2009 was another milestone as it had severe impact on several European countries' gas supply – Slovakia lost its gas import completely for days, Hungary, Poland, Germany and the Czech Republic also suffered major disruptions[119]. The issue of energy security in narrow terms of supply security became a central part of the security discussion and its overall importance was articulated. The Hungarian presidency of 2009/2010 accommodated to the newly intensified concern over energy security and put significant emphasize on energy security, especially its external relations towards neighbouring or more distant countries showing that the political sphere of energy security received more attention than before; furthermore he term environmental security appears in the document besides climate change different environmental issues appearing previously[120].

During the Hungarian presidency on the 24th of February, 2010 a Declaration was accepted by the Heads of the States defining the most important energy security goals (infrastructure and policy) and creating a High Level Energy Working Group and its 3+1 subgroups (1. North-South Gas Corridor and Krk LNG terminal Working Group, 2. Oil supply crisis management Working Group, 3. Gas supply crisis management Working

[119] "The January 2009 Gas Supply Disruption to the EU: An Assessment" (European Commission, 2009), ec.europa.eu/energy/strategies/2009/doc/sec_2009_0977.pdf.

[120] "The Visegrad Group: The Czech Republic, Hungary, Poland and Slovakia | 2009/2010 Hungarian Presidency," accessed December 3, 2012, http://www.visegradgroup.eu/documents/presidency-programs/2009-2010-hungarian-110412.

Group, 4. 2020 Action Plan and Decarbonisation Working Group) responsible for certain areas under the defined goals[121]. These groups do not have legislative authority but they encompass the main decision makers and the most influential experts of the member countries therefore we might say that they can shape the energy policies of each other. However this step signs further deepening of the cooperative approach and the approximating understandings on energy security within the V4 RESC, because these Working Groups are organized around distinctive and special policy issues or even projects meaning that the common goals and understandings of the common problems reached a phase where agreement can be settled in more particular and more conflictual fields as well.

Various documents, analyses and policy papers were created connected to this process arguing for a wider and more institutionalized cooperation on energy security within the V4 framework[122] and the Slovak presidency of 2010/2011 continued putting

[121] "Declaration of the Budapest V4+ Energy Security Summit," February 24, 2010, http://www.mfa.gov.hu/kum/en/bal/actualities/spokesman_statements/20100224_Kozos_nyilatkozat_V4_en.htm.

[122] Grodzki, *Energy Security in the V4: Cooperation to Enhance Security and Development*; Nosko et al., *Policy Paper – Energy Security*; Smith, "Bringing Energy Security to East Central Europe – Regional Cooperation Is the Key"; Starry, "Co-operation of Visegrád Four Member Countries (V4) in Energy"; Świątkowska, "Energy Security of the V4 Countries: How Do Energy Relations Change in Europe"; V4 Think-Tank Platform, "Background Paper for Recommendations for Governments of V4 Countries with Respect to Regional Energy Cooperation Adopted After the 1st Meeting of the Working Group on Energy Security of the V4 Think-Tank Platform," January 25, 2010; "Energy Security of Visegrad Region" (www.visegrad.info, March 5, 2010), http://www.visegrad.info/energy-security-infrastrucutre/factsheet/energy-security-of-visegrad-region.html; "Recommendations for Governments of V4 Countries with Respect to Regional Energy Cooperation Adopted After the 1st Meeting of the Working Group on Energy Security of the V4 Think-Tank Platform" (International Institute of Political Science of Masaryk University, n.d.), http://www.iips.cz/data/files/energetika/Recommendations_V4_Working_Group.pdf.

emphasize on energy security stating that "[t]he security of supply is a priority, especially in the natural gas and oil sectors."[123].

[123] "The Visegrad Group: The Czech Republic, Hungary, Poland and Slovakia | 2010/2011 Slovak Presidency," accessed December 3, 2012, http://www.visegradgroup.eu/documents/presidency-programs/2010-2011-slovak-110412.

Conclusion

First of all summarizing the empirical findings above we can conclude that no other policy area mentioned in the Kromeriz Declaration received such distinguished status as energy security, although it was not even listed within the Declaration. Energy security was not embodied in the V4 framework or only on a very low level, however due to the common risks and the urge to develop regional energy markets created sufficient interconnectedness in the Group members' energy policies to define a regional energy security complex – although it was not 'discovered' by governments. The gas crises of 2006 and 2009 meant however a breakthrough and provided a common regional interpretation on the subject and importance of energy security. Securitization on the international level did happen as it was identified as a crucial field having utmost importance for the region, especially in the economic sector. This understanding was enabled by the physical environment of the region making supply security an exceptionally important factor. Although until the gas crises this importance was not recognized, however following that a recognized regional energy security complex was rapidly formed first on the conceptual, informal, later on a gradually institutionalizing, formal level. The subject of the cooperation also widened, a shift can be traced from a classical homogenous, consumer bloc (see the definitions above) to a more heterogeneous RESC encompassing the environmental sector and the political as well as it also coordinates reaction on the political processes and decisions in the common EU

energy policy. However this shift to heterogeneousity is less significant than the Visegrád RESC's importance in the field of supply security.

The case study confirmed several hypothesis and statements concerning the RESC concept, first of all the one presuming that a recognized RESC will be formed within the framework of an already existing regional cooperation scheme. Also the possibility of a certain 'spill-over' of energy security from one sector to another due to the interconnectedness of sectors from the energy security perspective.

This general aim of this thesis was to find an explanation on the questions why and how are regional energy security cooperations formed. Thy Why question was addressed by introducing a wide concept of energy security making the statement that new challenges and paradigms require new tools and measures – i.a cooperation the regional level. The proposed answer on the How question is the concept of Regional Energy Security Complexes which is able to encompass both the wide energy security definition and the regional level of analysis, from an international relations perspective.

The base of the inquiry was that energy has a unique nature that unites an economic and political side and necessitates the active participation of the state, making it the main actor of the current thesis. The ontological nature of energy combined with new security challenges marks the birth of a new energy security paradigm on the global level which is more vague and complex than before. As states are the main actors and

the issue – energy security – moved to regional and international level, an approach from the point of view of the international sphere is required to properly place energy security as a factor in its system. Global energy governance and classical IR understandings on (energy) security have their pitfalls preventing their successful application. However the Copenhagen School's concept of regional security complexes was found to be acceptable as it is able to encompass both the widened energy security concept and the regional level of analysis. Based on its tenets the concept of Regional Energy Security Complexes was outlined and applied to a case chosen by the logic of 'mostly likely' case selection.

Although in general the main conclusion is that the shifting concept of energy security and the model of Regional Energy Security Complexes can give an approximate explanation on the question examined, numerous questions and problems are still untouched especially concerning the detailed theorization of energy security and its relation to different IR theory tenets. Also the proposed model suffers from several shortcomings in terms of conceptualization, classification and the questionable added value of its high level of flexibility.

In any case, energy security as a 'mega-issue' is present and actively shapes international relations on every possible level and in different sectors parallel. A deeper understanding on the relevance of energy security in IR needs to be reached and

researched – the current thesis' goal was to introduce a possible and promising approach.

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