

GEOPOLITICS OF THE GERMAN

ENERGIEWENDE

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Abstract

The changing geopolitical landscape of the world marked the new era of the “battle for resources” ranging from the oil, gas and rare earth materials, to investments in technology and getting the best-practice in using the technology. Germany was the first state to launch an ambitious restructuring of its energy system which brought to the center of discussion – energy transition to renewables. By observing reaction on Ukraine/Russia 2006 gas crises, Felix Ciuta and Ian Klinka identified two geopolitical narratives in Germany emerging in 2006 - “a new Cold War narrative” and a “strategic partnership narrative” elaborating on relations between Germany and the Russian Federation. Although both narratives have their strongpoints even today, this thesis aims to show the emerging geopolitical narrative in the energy security domain in Germany that is becoming the dominant one, and is based on the implementation of the energy transition to renewables (*Energiewende*). According to this narrative, Germany, aware of its role, is a “frontrunner” and a “role-model”, which plays a “global pioneering role” and is capable of developing new technologies, and of leading a new energy revolution in renewable energy. By keeping this path, Germany will ensure energy independence, economic growth and bigger exporting opportunities. With these claims, the narrative legitimates costly investments in the renewables sector and frames domestic and external policies of the Federal Republic of Germany. The geopolitical narrative has also its external dimension where it aims to convince international community that policies Germany takes are aimed to conduct the energy transition.

Keywords: *geopolitics, renewable energy, Energiewende, Germany, energy transition, geopolitical narratives*

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Introduction

No great nation willingly allows its standard of life and culture to be lowered and no great nation accepts the risk that it will go hungry.

Hjalmar Schacht, German Minister of Economics in 1937 in *Foreign Affairs*

We can be the first industrialized state in the world that will manage the transition to future electricity generation.¹

German Chancellor Angela Merkel

In the last twenty years, the changing geopolitical landscape of the world marked the new era of the “battle for resources” ranging from the oil, gas and rare earth materials, to investments in technology and getting the best practice in technology use. On the one hand, we are affected by the processes of desertification, lower agricultural production, floods, rising temperatures; and on the other, with increased urbanization and rising population, emergence of bigger middle classes and enhanced life styles in various countries. This changing landscape in the world brought geopolitics into the discussion in the form of the "battle for scarce resources", the geographic characteristics and environmental determinism pose certain challenges to states. This competition causes further economic and social changes in the world and therefore also influence the result of political changes. On the international level, the climate change negotiations are a type of discourse

¹ Press release on the new German Energy Concept in 2011 at: <http://www.bundesregierung.de/ContentArchiv/DE/Archiv17/Artikel/2011/06/2011-06-09-regierungserklaerung.html>. Accessed on 26.05.2014.

that is engaged to avoid environmental degradation, to avoid any future conflicts over resources or the living habitat and to enhance the dialogue about the current energy supply mix that is harmful for the environment. In the world of “scarce resources”, states engage in energy security considerations and therefore the question of how one ensures energy resources is crucial for the survival of the state.

Energy resources are various, however, the lives of many people in the world, most particularly from those in the developed and developing countries, are influenced by oil and gas. The energy security considerations often shape internal and external policies of a state that is accommodating its needs and acquiring resources that are scarce (or nonexistent) within the state. The interest of this thesis is the Federal Republic of Germany and its pursuance of the energy transition to renewable energy as an answer to the changing geopolitical landscape of the world which poses challenges to energy security considerations in Germany. Literature that connects geopolitics and energy security in Germany is scarce², however various authors analyzed the energy security discourse in Germany by using the critical geopolitics approach in which they identified two geopolitical narratives within the German energy security domain – “a New Cold War narrative” and the “strategic partnership narrative”³ which aims to identify subjects, objects and results of a certain energy security analysis. This thesis adds to the critical geopolitical analysis of narratives emerging in the energy security domain in Germany. It explores the existent geopolitical narratives and based on the research conducted, shows how the new geopolitical narrative emerged in

² See: Ian Klinke, “Geopolitics in Germany – the *Return* of the Living Dead?”. *Geopolitics*, Volume 16, Number 3, 1 July 2011, and Felix Ciută, and Ian Klinke. “Lost in Conceptualization: Reading the ‘new Cold War’ with Critical Geopolitics.” *Political Geography* 29, no. 6 (August 2010)

³ See more in Klinke Ian, “Geopolitics in Germany – the Return of the Living Dead, and Ambrish Dhaka, . “The Geopolitics of Energy Security and the Response to Its Challenges by India and Germany.” *Geopolitics* 14, no. 2 (May 6, 2009)

Germany with its energy transition. It also identifies the subject, object, and means in which the narrative uses, and the audience for which the narrative is aimed at. By using the concept of “narrative” defined by Felix Ciuta, the author aims to show the emerging geopolitical trend of the German energy transition (*Energiewende*), and how it frames the debate on domestic and external policies of the Federal Republic of Germany.

The research question of my thesis is; what are the dominant geopolitical narratives in the energy security domain in Germany? Is there a new geopolitical narrative in the German energy security domain? How did this geopolitical narrative develop and how does this narrative frame the internal debates on German foreign policy? The methodology of this research is concentrated on discourse analysis of the assessment within the new German geopolitical narrative. In order to answer these questions, this thesis will look at official documents and publications of various ministries of the Federal Republic of Germany. It will also look at parliamentary debates (in the 18th election period) and public speeches by the German Chancellor, Angela Merkel and the members of her cabinet responsible for energy, economy, environment and foreign policy. This research will also analyse publications from three think tanks⁴ and two reports prepared by the government for the German parliament. I have also conducted a few interviews in order to better understand the discussion around the *Energiewende*.

Although the energy transition began much earlier than its official start in 2011, Germany radically engaged in further developing perspectives upon ensuring better energy supply through energy transition after the Fukushima reactor catastrophe in 2011. The term *Energiewende* was coined to

⁴ Think tanks in the research are Stiftung Wissenschaft und Politik, Deutsche Gesellschaft fuer Auswartige Politik, and the Konrad Adenauer Stiftung.

mark a change in Germany's internal and external policies, and set renewable energy and environmentally-friendly technologies as priorities for the German government. Energy transition, internationally known as *Energiewende*, consists of: (1) increasing energy efficiency, (2) reduction of CO₂ emissions, (3) increasing of the share of renewables in the production of electricity and (4) the exit from nuclear energy. Although *Energiewende* can be considered as a domestic German project, Germany uses international forums to promote renewables. Therefore Germany is: (1) proactive in European Union's negotiations on climate goals; (2) had a founding role in the formation of the new International Renewable Energy Agency; (3) promoting its goals at the Clean Energy Ministerial Summits, (4) participating actively at international climate change negotiations and also engages in many other forums for defining climate protection measures. The most recent elections in Germany resulted in that during the next 18th election period, Germany will have a third Grand Coalition with the other major parties. They consider *Energiewende* as a way to develop an industrial society that is led by the concept of sustainability ("Nachhaltigkeit"). The transition is aimed to: (1) protect the climate and the environment, (2) make Germany less dependent on imports while ensuring higher employment, (3) create added value in Germany, and to (4) strengthen the welfare and competitiveness of the German economy.⁵

The findings of this research, have showed that we can track the new emerging geopolitical narrative in Germany. This narrative incorporates energy security and climate protection, and also gives Germany a leading role in the global renewable energy sector. It also puts Germany in the middle of the development of energy systems. My thesis statement is: *Energiewende* (energy

⁵ Coalition-agreement between the Christian Democratic Union of Germany (CDU) and the Christian Social Union of Bavaria (CSU) signed with the Social Democratic Party of Germany, online at: <https://www.cdu.de/sites/default/files/media/dokumente/koalitionsvertrag.pdf> accessed 26.05.2014.

transition) is a new geopolitical narrative within the energy security domain, presented by the German government and backed by think tanks and the public. It is used in order to forge a framework through which Germany is attempting to change its energy system and become a global leader in renewables and exportable environmentally-friendly technologies.

This thesis is divided into three chapters. The first chapter will address the theoretical framework, used to analyze the nature of the German energy transition. I will present the concept of geopolitics with particular emphasis upon defining the geopolitical reasoning and the geopolitical culture of a given state. After these definitions are set, the geopolitical ‘game’ surrounding renewables will be presented in order to understand what the stakes are, and which actors participate in it. After that, we will look at the particular case of Germany and their geopolitical culture. This will be merged with Felix Ciuta’s understanding of narratives and will therefore present current geopolitical narratives within the energy security domain in Germany. At the end of the theoretical chapter, I will then present a theoretical contribution to the discussion of geopolitical narratives in Germany. In the second and the third chapters I will analyze elements of the geopolitical narrative through which it legitimates itself in public discussions and further frames policies in Germany.

CHAPTER 1: Geopolitics, renewable energy and narratives in Germany

This chapter will present main definitions used by the author and will set together concepts and its implications in Germany.

Geopolitical reasoning and the geopolitical culture

According to the conventional academic understanding of geopolitics, Gearoid O Tuathail and John Agnew describe that, “geopolitics concern the geography of international politics, particularly the relationship between the physical environment (location, resources, territory, etc.) and the conduct of foreign policy.”⁶ Geopolitical thinking is strongly influenced by the notion of environmental determinism and evaluates its impacts on social, economic and political conditions on a particular territory, in one state. Touathail and Agnew state that geography is a physical phenomenon, which is dependent on the geographical characteristics of a state and is distinct from the, “social, political and ideological dimensions of international politics”.⁷ Geography cannot be changed, but the perception of it can be influenced by the power of some state. From a position of a state in the international system, the national interest needs to be fulfilled in different geographic areas of the world. Following that argument, each state engages in the interpretation of geographic characteristics of a certain area and evaluates its interests in that area. Therefore, we can say that

⁶ Gearóid Ó Tuathail and John Agnew “Geopolitics and discourse: Practical Geopolitical reasoning in American Foreign Policy” in *The Geopolitics Reader 2nd Edition.*, ed. Gearóid Ó Tuathail (New York: Routledge, 2006), 95

⁷ Touathail and Agnew “Geopolitics and Discourse: Practical Geopolitical Reasoning in American Foreign Policy”, 95

geopolitical reasoning is: “a process of representation by which the intellectuals of statecraft⁸ designate a world and ‘fill’ it with certain dramas, subjects, histories and dilemmas.”⁹

For this thesis, our geopolitical reasoning will include the geo-economic aspect of the geopolitical game in which a state (1) is defining the world around it; (2) is defining threats for the state; and (3) is conducting certain policies in order to preventatively act. Also, in theoretical terms, we use the geo-economic argument that a state tries to maximize its own economic gains in the game for limited resources in the world. For us, the subject is aware of its role in the global system (and in its neighborhood); and is aware of the changing geopolitical landscape of energy resources. Therefore, the subject tries to be the first one to achieve relative independence on foreign imports of gas and oil through the energy transition to renewables, and aims to profit from its position in the technological chain by developing patents for the global market. Assuming a position in the system depends on the geopolitical culture of a subject which is in this case, significant.

Touathail states that all states, as recognized territorial institutions within an international system of states, have a geopolitical culture in which they conceptualize the role of their state and its identity, and mirror the image in the world.¹⁰ The study of geopolitics contain various academic approaches, however in this thesis I will be tracking the emerging dominant geopolitical narrative through the critical geopolitics approach. Unlike the approach of general geopolitics which

⁸ As defined by Touathail and Agnew – “intellectuals of statecraft’ term refers to a whole community of state bureaucrats, leaders, foreign-policy experts and advisors throughout the world who comment upon, influence and conduct the activities of statecraft”

⁹ Gearóid Ó Tuathail and John Agnew, “Geopolitics and discourse: Practical Geopolitical reasoning in American Foreign Policy”, 96

¹⁰ Gearóid Ó Tuathail, “General Introduction: Thinking Critically about Geopolitics” in *The Geopolitics Reader 2nd Edition.*, ed. Gearóid Ó Tuathail (New York: Routledge, 2006), 7

analyses the acts of those leading the state, critical geopolitics focuses on the role of more actors that shape the geopolitical culture as the state relates with the world.

The geopolitical culture is influenced by a state's geographical position, its national identity, relations to other countries in the world and various traditions that come from its history or bureaucratic organization (influenced by various networks of power).¹¹ When we analyze the geopolitical culture and put it into the energy transition context, it depends on the countries geographic position, its traditions and relations to other countries through which it ensures its interests. It also depends on the bureaucratic reorganization which is adapted to the emerging challenges.

The emerging geopolitical culture in a state is made of different elements but has its "expression in the form of particular discourses or narratives of world politics."¹² Critical geopolitics distinguishes between three different types of geopolitical discourses which each have a different focus. While formal geopolitics is focused on theories and visions produced by intellectuals of statecraft, practical geopolitics looks at narratives produced by policy makers and politicians employed in the foreign policy field, which is studied through official speeches and public statements.¹³

Muller writes that approaches under the critical geopolitics field, test the construction and social effects of geopolitical imaginations and geopolitical identities that develop imaginaries in which

¹¹ Touathail, "General Introduction: Thinking Critically about Geopolitics", 7

¹² Ibid, 9

¹³In addition to those two, we can find also popular geopolitics which takes a look at the popular culture of a state (magazines, movies, cartoons etc.). Klaus Doods quoted in Touathail, "General Introduction: Thinking Critically about Geopolitics", 9

people, regions, states and the shifting boundaries¹⁴ are defined. In addition to discourse we might find other terms such as “geopolitical storylines, geopolitical imaginations, geopolitical scripts, geopolitical narratives...”¹⁵ In my work, I will refer to geopolitical “narrative”, which in its core has Felix Ciuta’s concept of a “narrative” that will be presented later in the text. Since I was limited in my research for investigating the elements of popular geopolitics, I will concentrate only on the first two types of geopolitics – formal and practical geopolitics, and will analyze the positions of decision-makers and politicians, and of think tank experts. Since I will lay groundwork with certain stakes and awards in the geopolitical game around renewables, we shall see how the new narrative in the security domain in Germany emerges.

Simon Dalby identified new emerging challenges and threats with cross-border effects that stand in front of the world, a few of those being: environmental degradation, climate change, ozone layer depletion and violence over resources.¹⁶ Threats previously mentioned, in addition to energy security considerations and the long-term changing energy markets pose challenges to environmental and energy security and brought renewables to the center of discussion.

Ewan Anderson and Liam Anderson in their book use the contemporary definition of “geopolitics” that is today used to highlight “visions of oil supplies, strategic minerals, agricultural potential, dangerous sea routes, and vulnerable frontiers and, possibly, dwindling natural resources”¹⁷. The

¹⁴ Martin Müller, “Reconsidering the Concept of Discourse for the Field of Critical Geopolitics: Towards Discourse as Language and Practice.” *Political Geography* 27, no. 3 (March 2008), 323

¹⁵ Ibid.

¹⁶ Simon Dalby, “Introduction to Part Four” in *The Geopolitics Reader 2nd Edition.*, ed. Gearóid Ó Tuathail (New York: Routledge, 2006), 177.

¹⁷ Ewan W. Anderson and Liam D. Anderson, *Strategic Minerals: Resource Geopolitics and Global Geo-economics*. Chichester: John Wiley & Sons, 1997, 2.

competition for acquiring important minerals or technologies has many levels of competition, from the mining of resources to the final product that goes on the market, and each state aims to attain a position in that production chain.

Geopolitics of renewable energy

The field of Geopolitics of Renewable Energy is also lacking in reading material, however, renewable energy and related technologies are slowly becoming more important in the whole world, from industrialized to developing states¹⁸. Geopolitics consists of, “conventional energy sources such as oil, natural gas and coal constitute physical geographical variables of strategic importance”¹⁹ that certain states want to acquire. This due to the increased burning of fossil fuels, increased CO₂-emissions, demographic growth in Asia and resulting higher demand for energy and the prospect of energy scarcity in the future.²⁰

The above mentioned factors trigger economic, social and political changes around the world. Although not many authors analyzed the geopolitical consequences of energy transition, Criekemans gave a significant contribution and identifies two perspectives from which the energy transition to renewable energy can be observed: the “internal-geopolitical perspective” and the

¹⁸ David. Criekemans, “The geopolitics of renewable energy: different or similar to the geopolitics of conventional energy?”, University of Antwerp & Flemish Centre for International Policy, 2011 and Daniel Scholten, and Rick Bosman. “The Geopolitics of Renewable Energy; a Mere Shift or Landslide in Energy Dependencies?”, 2013. Accessed June 3, 2014. <http://www.drift.eur.nl/wp-content/uploads/2013/11/Scholten-and-Bosman-2013-Geopolitics-of-Renewables.pdf>.

¹⁹ Criekemans, “The geopolitics of renewable energy: different or similar to the geopolitics of conventional energy?”, 3.

²⁰ Ibid, 4

“external-geopolitical perspective”²¹. On the one hand, the internal- geopolitical perspective asserts that changes by technological advancement of energy transition will in the coming 25 years be similar to the industrial revolution at the end of the nineteenth century²² and fuel the economic growth of countries. On the other hand, the external-geopolitical perspective asserts that states engaged in investing and developing the sector of renewable energy might become crucial energy market leaders tomorrow²³.

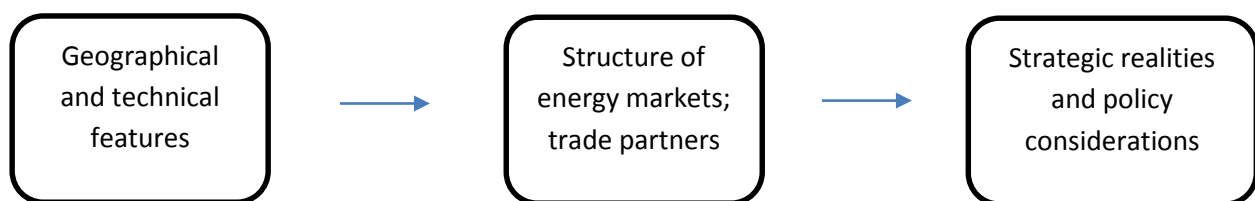


Figure 1. Reasoning towards the geopolitics of renewables designed by Daniel Scholten and Rick Bosman²⁴

Unlike the supply of conventional energy sources (oil and gas), the usage of renewable energy sources might decentralize the energy supply and could change the geopolitical landscape of the current oil-gas based energy markets. Daniel Scholten and Rick Bosman rightly pointed out that

²¹ Criekemans, “The geopolitics of renewable energy: different or similar to the geopolitics of conventional energy?”, 7-8

²² Ibid, 7

²³ Ibid, 8

²⁴ Ibid, 5

the ability to bring up the renewable sources and technical possibilities to markets has a potential to establish an important player in shaping a renewable energy system.²⁵

Newly found technologies and more effective ways of producing energy, alongside with the geographical characteristics and limitations of some geographical areas, will shape the geopolitical context and set the play-ground “within which countries, regions and territories will be able to operate, create welfare and wellness, and develop a power base”.²⁶ In this changing system, in which the number of patents and technological achievements raise concerns within states and their firms, these states are aware of their future perspectives and need to work on their (and their firms’), competitiveness in this “race”.

Whether we are talking about oil or natural gas, or renewable energy technology and sources, Philippe Le Billon argues that the role of states that are rich in either of these resources that could be exported to the international market, becomes more important due to their “access and control of commodity networks, trading routes, and markets”.²⁷ Further on, Philippe Le Billon states that the “geopolitics of natural resources has long been a strategic concern for both exporting and importing states”²⁸.

Where the advantage in the renewable energy sources sector is and which radical changes will it cause? Decreased dependence on energy monopolies within the energy market will be changed

²⁵ Daniel Scholten and Rick Bosman, “The Geopolitics of Renewable Energy; a Mere Shift or Landslide in Energy Dependencies?”, 4.

²⁶ Criekemans, “The geopolitics of renewable energy: different or similar to the geopolitics of conventional energy?”, 9

²⁷ Phillipe Le Billon, “The Geopolitical Economy of Resource Wars” in *The Geopolitics Reader 2nd Edition.*, ed. Gearóid Ó Tuathail (New York: Routledge, 2006), 204 - 205.

²⁸ *Ibid*, 205

with the introduction of a bottom-up approach that encourages people to build smart houses with energy efficient technologies and with its own electricity generation (solar panels). Secondly, alongside with the decreased dependence on energy monopolies, it might reduce fossil fuel imports and therefore decrease possible political pressure through energy. Thirdly, developed technologies can be sold abroad and accompanied by the development of dialogues on energy transition issues, patents and licenses which could then be sold to others in the global market. The whole energy transition offers the decentralization of producers and suppliers of energy and this change involves broader society, but, in the long-term. As it appears, the change to renewables will be the game-changer and will shape economic, social and political conditions in the future.

Criekemans uses the Sainteny's (Sainteny, 2010) and presents three geographical zones and three thematical playing fields²⁹ (see Appendix 1, table 1. Geopolitical game – stakes and awards) in the new “geopolitics of renewable energy” and interestingly enough, gives Germany a leading role in Europe. First geographical zone is the European Union with Germany as a core country, the second one is the United States of America and the third is Asia with China, India, South Korea and Japan as the main competing countries.³⁰ Playing fields in which countries compete are: (1) the control over the technologies which have to be developed further, and the division of the added value these technologies will generate, (2) diminishing energy dependence, and (3) the impact on national development models in the post 2012-era of climate policy.³¹

²⁹ Criekemans, “The geopolitics of renewable energy: different or similar to the geopolitics of conventional energy?”, 21

³⁰ Ibid.

³¹ Ibid.

Criekemans concludes that the geopolitical game will be played for the technologies³² that need to be employed in order to effectively and successfully “extract” renewable energy sources. In his opinion, Germany does the most of the encouragement to activate its own researchers and experts, alongside firms and small to medium enterprises in order to link the three thematical playing fields mentioned above.³³

Joel B. Eisen uses the “race” metaphor in order to describe the current state of affairs in the new energy geopolitics and puts in relation the “green energy race” and “energy dependence” as two diverging goals in the changing geopolitical landscape of the world.³⁴ Daniel Scholten and Rick Bosman suggests that states in the new renewables “game” have a dual choice either to produce or import energy and need to decide which option they choose.

One of the main considerations of ensuring energy security with renewables is the functioning infrastructure for electricity that is a primary source of energy in most of the industrialized states of the world. Europe and the US have a problem with old grids and “external influence, overstraining during peak times of demand, or simple accidents can cause parts of the grid and plants to go offline”.³⁵ Therefore, the most important element of the renewable electricity grid is its *physically integrated infrastructure* that connects the producer and the consumer through transit

³² Criekemans, “The geopolitics of renewable energy: different or similar to the geopolitics of conventional energy?”, 21

³³ Ibid 21.

³⁴ Joel B. Eisen,,”New Energy Geopolitics: China, Renewable Energy, and the Greentech Race” 6 Chi.-Kent L. Rev. 9 (2011), 15

³⁵ Baumann, Florian. “Energy security: a transatlantic challenge? “ Center for Applied Policy Research (C.A.P):. München, 2007 (CAP Analysis No. 2/2007), 5

states.³⁶ The infrastructure needs high investments, and the distribution of costs of its construction will have to be paid by taxpayers. Although the energy supply can decentralize through the use of renewable energy sources, accidents can happen through which the whole system would be influenced and blackouts are possible.

Aside from accidents, Jeremy Rifkin highlighted the problem of storing the produced energy in order to ensure long-term energy supply security even when there is no sun or wind.³⁷ Due to the volatility in prices and the available amount of renewable energies on the market, *development of storage capacities* is important in order to stabilize energy markets in case of short-falls in the supply.³⁸

Daniel Scholten and Rick Bosman highlight a few considerations with regards to the size of the grid and put forward four considerations: (1) electricity transport is affected on longer distances as losses of load can occur, (2) the larger the transmission grid is, the more sources can be attached to it and the production can be higher, (3) the larger the grid, more various geographical sites can be included with available renewable resources, and (4) the bigger the grid is, its vulnerability and possibilities of disruptions are higher³⁹. In their conclusion, renewable energy markets need national, regional or even global markets to be cost-effective.

³⁶ Scholten and Bosman “The Geopolitics of Renewable Energy; a Mere Shift or Landslide in Energy Dependencies?”, 16

³⁷ Jeremy Rifkin, “Die Energierevolution : Deutschland vor der Führung im Wasserstoffzeitalter,” *Internationale Politik*: IP, 2003 Vol. 58.2003, 3, 25-30

³⁸ Scholten and Bosman “The Geopolitics of Renewable Energy; a Mere Shift or Landslide in Energy Dependencies?”, 18. Emphasis added.

³⁹ *Ibid*, 16.

Aside from the physically integrated grid, energy security considerations are almost the same as for the conventional energy sources and Scholten and Bosman assume that: (1) consumer countries ensure its security of supply and aim for the affordable and stable energy prices, (2) producers aim to earn revenues to boost their economic growth and need to ensure the demand for their energy, and (3) transit countries that aim to maintain their position in the infrastructure from which they earn money and are able to negotiate with both suppliers and the consumer.⁴⁰

Therefore, energy security considerations in the renewable energy sector highly depend on the position of the country, whether the country is a producer, a transit state or a consumer of electricity or any other related product. The security considerations also include technological advancement and the possibility to sell those technologies afterwards as the development of technologies is fairly expensive in some point in time and need to be sold in order to balance the sheet.

In energy security discussions, renewable energy is often invoked as a means for further diversification of energy supply mix *and* decreased dependence on foreign imports.⁴¹ However, Robert Bryce states that development of a “green” economy is a myth and he refutes the notion that the use of more hybrid cars, wind turbines and solar panels will free us from the need for international entanglements⁴². On that note, Crikemans points out that producing more energy from renewable energy sources could diversify the energy mix, but can also establish new dependencies upon the outside world for natural resources such as lithium (batteries), or silicium

⁴⁰ Scholten and Bosman “The Geopolitics of Renewable Energy; a Mere Shift or Landslide in Energy Dependencies?”, 5

⁴¹ Joel B. Eisen,,”New Energy Geopolitics: China, Renewable Energy, and the Greentech Race”, 15

⁴² Robert Bryce, “Power Hungry: The Myths of “Green” Energy and the Real Fuels of the Future”. New York: Public Affairs, 2010, 132.

(solar panels)⁴³. Dependence on import of minerals causes further challenges when developing new technologies and when planning national security⁴⁴.

One can argue whether the new orientation towards renewable energy and subsequent change in the global production chain, also means a shift in reliable partners around the world. Recently, China cut back on exports of rare earth minerals due to it is “industry restructuring and environmental concerns”⁴⁵ and this showed again that dependencies on imports of those sources can also be risky. Geopolitical game around renewables can also be influenced by one player⁴⁶ that owns all the resources for the production of renewable energy and as in the case of gas, rare earth materials can also be used as a weapon for “political outcomes”. For that purpose, each state and especially Germany, developed strategies that maintain the import of important minerals⁴⁷.

On that note, policy implications for the securitization of mineral policy include employing policy instruments with a goal of ensuring stability and affordability of supply from abroad through bilateral partnerships with producing countries or through joint projects in countries rich in

⁴³ Criekemans, “The geopolitics of renewable energy: different or similar to the geopolitics of conventional energy?”, 24

⁴⁴ Ibid, 33

⁴⁵ Ibid, 33.

⁴⁶ Approximately 90 percent of the minerals used for the production of renewable technologies and its infrastructure, more particularly lanthanides come from China, and lithium from Argentina, Chile, Bolivia and China. Robert Bryce, “Power Hungry: The Myths of “Green” Energy and the Real Fuels of the Future”, 132

⁴⁷ Federal Ministry of Economics and Technology, The German Government’s raw materials strategy Safeguarding a sustainable supply of non-energy mineral resources for Germany, strategy online at: <http://www.bmwi.de/English/Redaktion/Pdf/raw-materials-strategy,property=pdf,bereich=bmwi2012,sprache=en,rwb=true.pdf>

resources.⁴⁸ Other two strategies include: (1) developing more effective methods in stages closer to the mineral extraction stage which offers the access to resources abroad through the integration in the value chain (Germany)⁴⁹, and (2) by reducing the demand for energy while promoting “reuse and recycling of materials, the exploitation of alternative domestic sources and the development of substitutes.”⁵⁰

International cooperation is also keen on exchanging the “know-how” in substitution, recycling and the reuse of materials for renewable energy technologies, and countries that manage to position themselves in this sector, can also find a place in the geopolitical game (like Germany).

The geopolitics of renewable energy is similar to the geopolitics of conventional sources of energy, however it has a potential of decentralizing the whole domestic and international system, which would greatly differ from the current situation with monopolies in the oil and gas sector (and limited resources). Although the mining activities are mostly done in China and are sold all around the world, we can assume that the energy transition to renewables will shift partnerships of certain countries that engage on their path towards more sustainable, but costly transition to renewables. The “race” to acquire the technology and to increase the number of renewables in the country is a costly mission and requires a thorough strategy and a goal to be acquired by the government and a tool to be presented to the public which in the end funds this costly change. This is where the

⁴⁸ Marjolein de Ridder, “The Geopolitics of Mineral Resources for Renewable Energy Technologies The Hague Centre for Strategic Studies, August 2013, 14

⁴⁹ Ibid, 16

⁵⁰ Ibid.

geopolitical narrative comes in the game and the geopolitical culture of a self-confident and self-interested state with economic success holds the background of the narrative.

Geopolitical thinking in Germany

In order to understand the geopolitical thinking in Germany, it is important to analyze various discourses in Germany that emerged after the end of the Cold War. After the end of the Cold War, and the unification of Germany, geopolitics was not regarded as an important topic in Germany. In the words of Andreas Behnke, the “logic of geopolitics is acknowledged as relevant for policy making, to speak of Geopolitik remains problematic, if not prohibited”⁵¹. The term *Geopolitik* is often connected with the mission of Nazism and their search for the *Lebensraum* for Germans with expansionist goals in foreign policy in order to ensure security or expansion⁵². In the words of Andreas Behnke, Germany needed to be cautious not to invoke *Geopolitik* again, as this would be seen as a form of a German *Sonderweg* which would be seen as opposite to Western orientation and would have bad connotations for its Eastern neighbors⁵³.

During the Cold War era, narratives produced by the German Government around three terms: “Verantwortungspolitik”, “Westbindung” and “A European Germany”, each of them elaborating on the role Germany has in Europe. “Verantwortungspolitik”, or the politics of responsibility was

⁵¹ Andreas Behnke: “The theme that dare not speak its name: Geopolitik, geopolitics and German foreign policy since unification” in: *The Return of Geopolitics in Europe: Social Mechanisms and Foreign Policy Identity Crises* Steffano Guzzini. ed Cambridge: Cambridge University Press, 2012, 102

⁵² Jeffrey W. Legro. “Germany from Outsider to Insider” in: *Rethinking the World: Great Power Strategies and International Order*. (Ithaca, Cornell University Press, 2007), 115

⁵³ Andreas Behnke: “The theme that dare not speak its name: Geopolitik, geopolitics and German foreign policy since unification”, 107

opposed to “Machtpolitik” as the power politics which means that Germany has the responsibility both for Europe and for itself⁵⁴. “Westbindung” marks the integration of Germany within the network of European and transatlantic institutions (European Community and NATO).⁵⁵

After the unification of Germany, it had a difficult task to prove its own “commitment to its Western identity”⁵⁶ which was done through further integration of the European Union. The unification of Germany had implications on the German foreign policy and the unification raised concerns in its neighboring countries about Germany’s role in Europe. The number of areas where common policies were made was rising and Germany is today regarded as one of the economic leaders of the European Union.

After the 1990s when the German Constitutional Court allowed the sending of the German army outside the German territory, when many international challenges were before Germany, the “NeoGeopolitik’s primary concern was the proclamation of a ‘normal’ and ‘self-confident’ German nation-state”⁵⁷ that economically grew and needs to engage in power politics on the international level. As Andreas Behnke rightly stated:

⁵⁴ Andreas Behnke: “The theme that dare not speak its name: Geopolitik, geopolitics and German foreign policy since unification”, 109

⁵⁵ Ibid, 109

⁵⁶ Ibid, 107

⁵⁷ Ibid, 113

Westorientierung replaces *Westbindung*, power politics challenges the notion of *Verantwortungspolitik*, and a German nation-state conscious of its own national interests dissolves the idea of a European Germany.⁵⁸

Mark Bassin writes that, after the Cold War, Germany has moved back into its intermediary balancing position between East and West and that in the 90s Germany has become more self-interest oriented and pursued policies aligned with that reasoning.⁵⁹ On that note, Behnke quotes Hellman who uses the description of Germany as a “‘great power in Europe’ which has its “‘national interests’, to ‘responsibility’ pride’ and ‘self-confidence.’”⁶⁰ The uniting factor between Germany and its neighbors and allies (especially the EU and the North Atlantic Treaty Organization) is increasingly the issue of energy security in which Germany is playing an important role as a producer, consumer and a transit state. Through the *Energiewende*, one can see that Germany is indeed aware of its “‘responsibility”, “‘self-confidence” and a role it plays both in the European Union’s, and the global energy transition and in long-term energy security.

Until 2006, energy security played a secondary role in Germany with regards to the foreign policy decision-making.⁶¹ After the Second World War, West Germany saw energy as an ‘economic’-not strategic-good and relied on market-based solutions⁶². The stance on energy security slowly

⁵⁸ Andreas Behnke: “The theme that dare not speak its name: Geopolitik, geopolitics and German foreign policy since unification”, 114

⁵⁹ Mark Bassin. “Between Realism and the ‘New Right’: Geopolitics in Germany in the 1990s.” *Transactions of the Institute of British Geographers* 28, no. 3 (2003), 358

⁶⁰ Andreas Behnke: “The theme that dare not speak its name: Geopolitik, geopolitics and German foreign policy since unification”, 120 Hellman 2005.

⁶¹ Dolata-Kreutzkamp, Petra. “Canada-Germany-EU: Energy Security and Climate Change.” *International Journal*, 2008, 666

⁶² Ibid.

changed in Germany with the rising demand from Asian countries, rising oil and gas prices, lack of investments, natural disasters and increased resource nationalism around the world⁶³. Until the first gas crisis between Russia and Ukraine, the prevailing opinion on energy security in Germany was that it is set by the market conditions and that private companies ensure it⁶⁴. From that moment onwards, it changed.

Frank Umbach from the Stiftung Wissenschaft und Politik stated, after the first gas crisis in Ukraine, Germany began considering further diversification of its energy supply in its national and European sense and considered whether an EU external energy policy is needed or a national energy security policy is rather needed⁶⁵. Petra Dolata-Kreutzkamp quoted the former, and current German Foreign Minister Frank-Walter Steinmeier who then coined the term “foreign energy policy’ and identified energy security as one of the three pressing security issues in the world (for Germany and the EU)”⁶⁶. From the year 2006, Germany and the EU countered a few more gas crises and the situation was evolving to the point that Germany is highly engaged in ensuring its own energy security through the costly investments in renewable energy⁶⁷.

Interestingly to note, before the gas crises, while energy supply was considered to be best delivered by market-based mechanisms and was left to private companies, the Federal Ministry of

⁶³ Petra Dolata-Kreutzkamp, “Canada-Germany-EU: Energy Security and Climate Change.”, 667

⁶⁴ Frank Umbach. “Deutsche Außenpolitik und Energiesicherheit”. In: Jäger, Thomas (Ed.) et al.: Deutsche Gesellschaft für Auswärtige Politik e.V. (Ed.): Deutsche Außenpolitik: Sicherheit, Wohlfahrt, Institutionen und Normen, Wiesbaden, VS Verl. für Sozialwiss., 2007, 355.

⁶⁵ Ibid, 357

⁶⁶ Petra. Dolata-Kreutzkamp, “Canada-Germany-EU: Energy Security and Climate Change.”, 668

⁶⁷ Deutsche Bank research “Energiewende 2.0 – don’t risk competitiveness” (November 2013) at: https://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD000000000324468/Energiewende+2_0+-+don't+risk+competitiveness.PDF, accessed on 26.05.2014.

Economics was dealing with it⁶⁸, and as of today, Germany has a Ministry of Economic Affairs and Energy in order to account for challenges standing in front of its energy transition.⁶⁹

Today, Germany is both economically and politically in the center of both European and global issues. Paul Reuber and Gunter Wolkersdorfer in the case of Germany, gives an example where critical geopolitics “makes clear that every geographical representation is socially constructed and is semantically weighted in its historical and social context”⁷⁰. Therefore, Germany perceives its role according to its central position (Mittellage) and is part of most of the policies in the EU. Its role can just be aggravated by the technological advancement and further integration of the EU’s energy markets. The common denominator in energy security understanding between Germany and the European Union is based around three goals: “sustainability, competitiveness and security of supply”⁷¹ where Germany is again performing the central role in developing EU’s gas and electricity market and aiming for higher climate protection goals.⁷²

Germany’s ambitions of setting its own energy and climate targets, comes because the geopolitical outlook of the world influenced the energy geopolitics in a way that national communities

⁶⁸ Petra Dolata-Kreutzkamp, “Canada-Germany-EU: Energy Security and Climate Change.”, 672

⁶⁹ “100 days of the Federal Ministry of Economic Affairs and Energy: Policies for Growth and Employment”, more at: <http://www.bmwi.de/DE/ministerium.did=631398.html> accessed on 23.05.2014.

⁷⁰ Paul Reuber and, Gunter Wolkersdorfer, “The Transformation of Europe and the German Contribution”, *Geopolitics*, Vol. 7, No 3(Winter 2002), 51

⁷¹ European Commission Energy, Second Strategic Energy Review(2008) quoted in Zahn, Tim. *The Paradox of German Foreign and Security Policy: With Respect to National Energy Security*. DTIC Document, 2009, 14

⁷² “A successful EU energy policy means means a cost-effective way conversion of energy supply.”, Federal Ministry of Economic Affairs and Energy, read more at: <http://www.bmwi.de/DE/Themen/Energie/Energiepolitik/europaeische-energiepolitik.html>; accessed on 28.05.2014.

specialize in a range of production possibilities in order to integrate in the global market.⁷³ As all other international players, Germany found its place as a technologically developed state and recognized its role in the development of renewable energy.

The position of Germany in this “green race”, and the fulfillment of its goals, will certainly mark the beginning of a new and more competitive German economy that will be a role model for other states in the transition towards the renewable energy. The costly transition would not be possible without a narrative that directs and shapes all discussions involving the energy transition.

The concept of narrative and geopolitical narratives in Germany

Felix Ciuta’s concept of a “narrative” offers us an additional theoretical asset in the way that we define narratives as “an account which has the properties of a story: a central character, an unfolding plot, a beginning, middle and end.”⁷⁴ Characterized by “linearity, intentionality and internal coherence”⁷⁵, narratives frame the discussion and put meaning on actions conducted. Narratives connect various events in a connecting whole and form a chain of events which have a certain logic behind it. On the other hand, Muller uses the definition of Gearoid Touathail and John Agnew of a geopolitical discourse as “sets of socio-cultural resources used by people in the construction of meaning about their world and their activities” and as a “an ensemble of rules by which readers/listeners and speakers/audiences are able to take what they hear and construct it into

⁷³ Dhaka, Ambrish. “The Geopolitics of Energy Security and the Response to Its Challenges by India and Germany.”, 286

⁷⁴ Felix Ciuta. “Discursive Constructions of Identity in European politics” in “Discursive Constructions of Identity in European Politics” Richard C.M. Mole, ed.(London: Palgrave Macmillan, 2007), 194

⁷⁵ Ibid.

a meaningful organized whole”.⁷⁶ In my work, I am using the term “geopolitical narrative” when relating to elements that frame the discussion around the energy transition in Germany. In my research, I am using the wording of “geopolitical narrative” as set of texts, practices and events that frame the discussion on energy transition and therefore shape the domestic and external policies in the Federal Republic of Germany. The narrative I am observing is partially framed by texts written by various ministries state institutions in Germany, but can also be seen in think tanks and media dealing with the German energy transition.

The conceptual framework of critical geopolitics and Ciuta’s “narratives” were used by Klinke and Ciutain their research and they gave us an overview of the existing narratives (period 2006 – 2008) in energy security discourse in Germany.⁷⁷ Narratives as “the new Cold War” and the “Strategic partnership” (See table 2. Appendix 2) could be invoked also today after the events in Ukraine as they elaborate on relations between the Russian Federation and Germany.

Ian Klinke understands narratives “as accounts that have the characteristics of stories and therefore include protagonists and a tripartite plot, made up of beginning, middle and end” that are part of geopolitical writings which frame the world “as a structured whole, constructs spatial identities and links specific notions of security and opportunity to particular policy guidance”⁷⁸. In this direction, narratives form a framework in which actors within a state reason about the current events and therefore evaluate the situation and react on the situation. Narratives give a structure to

⁷⁶ O Tuathail & Agnew, 1992; quoted by Muller “Reconsidering the Concept of Discourse for the Field of Critical Geopolitics: Towards Discourse as Language and Practice.”, 325

⁷⁷ Felix Ciută, and Ian Klinke. “Lost in Conceptualization: Reading the ‘new Cold War’ with Critical Geopolitics.”, 322-332

⁷⁸ Ian Klinke, “Geopolitics in Germany – the *Return* of the Living Dead?”, 713

the decision-making process and accounts, and gives arguments to adapt all subsequent actions of various actors to its framework. Two narratives found in Germany by previously mentioned authors are “a New Cold War narrative” and “a strategic partnership narrative” (see Appendix 2)

The first geopolitical narrative used by Ian Klinke and Felix Ciuta is the "new Cold War narrative" and it stresses "competition, polarity and power and presents the situation in which an aggressive, irrational, authoritarian and overpowering Russia threatens the democratic but dependent and currently weak Germany".⁷⁹ This narrative “is seen to revive the power politics of old, spheres of influence, hegemony and imperialism lite”⁸⁰ and the main tool is energy that greatly influences the energy security considerations in various states. After the emergence of such a narrative, policy implications are taken and as an answer to this narrative, according to Himmelreich, higher independence on Moscow’s oil and gas must be promoted⁸¹

The ostensible logic of protection of the new Cold War – Germany and Europe (us, here?) must be protected from Russia (“them, there”) – is enabled by the portrayal of a moral Self confronted by an Other which is different as it is villainous.⁸²

The basis for the emergence of a new Cold War narrative in Germany is the energy conflict and security issues arising from the use of energy as a political tool by the Russian Federation, which

⁷⁹ Ian Klinke, “Geopolitics in Germany – the *Return* of the Living Dead?”, 711

⁸⁰ Felix Ciută, and Ian Klinke. “Lost in Conceptualization: Reading the ‘new Cold War’ with Critical Geopolitics.”, 326.

⁸¹ *Ibid*, 326

⁸² *Ibid*, 327

is completely against the prevailing German position of deeper relations between Russia and the EU.⁸³

Ciuta and Klinka tracked the emergence of a “New Cold War” narrative in newspaper and magazine articles, think-tank publications, and other sources. This narrative was opposed to the one promoted by the government (strategic partnership) and was concerned with Russia’s behavior towards Ukraine. Russia’s behavior was seen as a new direction of Russia’s foreign policy in which it strives to use gas as a tool of great-power politics for gaining influence over former Soviet Union space. Today, with recent events in Ukraine, analysts argue that Russia indeed has a new foreign policy agenda in which it wants to influence post-soviet states and revive its “near abroad” influence.⁸⁴

The other geopolitical narrative also found by Ian Klinka and Felix Ciuta, but previously used by the German Foreign Office is the “strategic partnership” narrative⁸⁵ that connects the Russian Federation that is "blessed with natural resources but in dire need of consumer markets and investment" and "Germany that requires Russian gas and commands the financial resources to modernize Russia's export infrastructure"⁸⁶. Germany sees in Russia a valid partner and aims to ensure long-term partnership with the Russian Federation through the North European Gas

⁸³ Felix Ciută, and Ian Klinka. “Lost in Conceptualization: Reading the ‘new Cold War’ with Critical Geopolitics.”, 325

⁸⁴ Jeffrey Sachs, “A New Post-Soviet Playbook Why the West Should Tread Carefully in Ukraine: Foreign Affairs March 4, 2014 at: <http://www.foreignaffairs.com/articles/140999/jeffrey-sachs/a-new-post-soviet-playbook>, accessed on 25.05.2014.

⁸⁵ Ian Klinka, “Geopolitics in Germany – the *Return* of the Living Dead?”. 712

⁸⁶ *Ibid*, 712

Pipeline which caused a split within Europe (Poland, Ukraine and other European countries).⁸⁷

The strategic partnership narrative keeps the focus on business and countries and avoids any disturbances in their trade.

The government developed the “strategic partnership” narrative and it framed their opinion on the gas crisis as the reaction of a rational market player who was tempted by economic means to cut the supply of gas to Ukraine (and caused slight shortages in Germany).⁸⁸ This narrative highlighted the interdependence with Russia and favored avoiding confrontation with Russia.⁸⁹ The second narrative of the strategic partnership simplifies the world and shows it as a structured whole that has certain rules and functions according to some logic (market-based). Klinke states that this narrative is characterized by the “interconnectedness, interdependence and globalization”⁹⁰.

The two narratives in the energy security discussion in Germany are fuelled by different considerations, one is driven by a cooperative relation with the economic background, and the other is inherently conflictual and considers mainly security concerns in the relations. F. Ciuta and Ian Klinke add that both narratives have their own reading of relations between Germany and Russia, and therefore define and argue for different “rationalities, interests and policy

⁸⁷ Dhaka, Ambrish. “The Geopolitics of Energy Security and the Response to Its Challenges by India and Germany.”, 283

⁸⁸ Felix Ciută, and Ian Klinke. “Lost in Conceptualization: Reading the ‘new Cold War’ with Critical Geopolitics.”, 325

⁸⁹ Ibid, 325

⁹⁰ Ian Klinke “Geopolitics in Germany – the *Return* of the Living Dead?”. 715

prescriptions”⁹¹. Important findings of the research by F. Ciuta and Ian Klinke showed that no other narrative emerged during the period of 2006-2008 in the German public debate.⁹²

These two narratives that emerged in Germany are concerned with the oil and gas markets and my contribution to the energy security domain will prove the third narrative, which does not exclude the existence of the two other narratives but has become the dominant geopolitical narrative in Germany – the energy transition or the *Energiewende*. According to this narrative, Germany is (1) defining threats in the world (resource wars, climate change, unsustainable development and blackouts in energy supply); (2) is defining its global role when dealing with those threats and (3) is framing its policies in a way to ensure better geo-economic position in the future. As Germany is aware of the changing geopolitical landscape of energy resources in the world, it tries to achieve relative independence on foreign imports of gas and oil and aims to profit from its position in the technological chain with developing renewable energy technologies. The object of this narrative is not one state, but the future challenges posed by the competition for resources and by subsequent rising prices for those resources. Considerations in the energy transition are profitability of the transition (lowering and distributing costs in order to boost competitiveness of German firms), sustainable development and ensuring energy security. The means of promoting and ensuring this narrative is enlarging the support for the energy transition through research & development, export of technologies to rising number of partnering states (bilateral cooperation), setting EU energy and climate protection goals and promoting renewables in energy forums. For an overview of three

⁹¹ Felix Ciută, and Ian Klinke. “Lost in Conceptualization: Reading the ‘new Cold War’ with Critical Geopolitics.”, 325

⁹² Ibid, 325

narratives and their: subject, object, means of the narrative and the audience of the narrative, see Appendix 2, Table *Geopolitical narratives in energy security domain in Germany*.

CHAPTER 2. German Energiewende and the emerging (economic) geopolitical narrative

Energy security considerations in Germany that led to the decision to foster the energy transition (Energiewende) are various, but the most important ones highlighted in one of my interviews⁹³ are: (1) decreasing dependence on politically unstable countries⁹⁴, (2) decreasing foreign policy spill-overs from the energy sector, (3) insufficient resources coming from Norway, Canada and the United States, (4) pursuing the goal of climate protection with setting high goals in dealing with environmental catastrophes and countering global warming, (5) decreasing the CO₂ emissions, (6) decreasing the potential of conflicts for resources and (7) self-reliance in at least electricity production as the functioning of the energy-intensive economy depends on it.⁹⁵ The interviewee also added that the main motivator behind the *Energiewende*, although in the same time the burden for the transition, is the possible blackout in energy supply which would cause chaos and would destabilize the country. These goals set the scene for the emergence of a geopolitical narrative that gives a background for a costly energy transition in Germany.

In September 2010, the government adopted a comprehensive new strategy “Energy Concept” that set ambitious goals in front of the German government to be fulfilled until 2050 which gave the central role to increasing use of renewable energy in energy production. Furthermore, the

⁹³ Personal interview with Franziska Fabritius, Officer for Environment, Climate and Energy Policy at Konrad Adenauer Stiftung

⁹⁴ Germany currently imports 88 % of its gas needs and 98 % of its oil needs and is heavily dependent on imports, see: Federal Ministry of Economics and Technology: “Germany’s new energy policy Heading towards 2050 with secure, affordable and environmentally sound energy”, April/2012, 8

⁹⁵Dennis Tänzler · Stephan Wolters. “Energiewende und Außenpolitik: Gestaltungsmacht auf dem Prüfstand”, Zeitschrift Außen Sicherheitspolit (2014) 7: 135-136

government deliberately directed German policies to the world's "most energy efficient and environmentally friendly economies, while keeping affordable energy prices and a high level of prosperity".⁹⁶ Although this got the energy transition going, the main "push" to a more radical change in energy policy happened after the Fukushima Daiichi nuclear accident in 2011, after which the German government adopted the second Energy Package that started the transition we now call – the *Energiewende*. The package consisted of seven legislative acts aimed at supporting renewable energy and grid expansion, promoting energy efficiency, funding the reforms and reversing the previous decisions of extending the lifetime of the nuclear plants⁹⁷

The scale of Germany's ambitions, coupled with the size and energy intensity of its economy, and location at the heart of Europe's energy system, mean that further policy measures are necessary if Germany's energy transition is to maintain a balance between sustainability, affordability and competitiveness.⁹⁸

German energy transition is a challenge in which highly industrialized country will try to align elements of sustainability, affordability and competitiveness with its radical change in energy policy by phasing out nuclear energy and decreasing CO₂ emissions.

⁹⁶ IEA: Energy Policies of IEA Countries, Germany, 2013 Review, 9. Available online at: <http://www.iea.org/Textbase/npsum/germany2013SUM.pdf>

⁹⁷ Ibid, 9

⁹⁸ Ibid.

German energy transition – historical cut of a merger of anti-nuclear movements, environmental protection, competitiveness issues and energy security considerations

In the 80s, the discussion around renewables started as the link to anti-nuclear movement which was against locating the anti-ballistic missile systems in Europe. As the interviewee Rainer Hinrichs-Rahlwes⁹⁹ stated, renewable energy comes to the fore of the discussion in 1985/1986 as the development of technology was pursued by energy utilities with ambitious goals of 40% of renewable (rising to 100%) which was for that time quite unlikely with the technology at hand. In his opinion, geopolitics was not a motive for the beginning of the energy transition to renewables in Germany back in the 1980s and the real *Energiwende* started earlier than 2011 but rather as a result of anti-nuclear and environmental protection movements¹⁰⁰. As stated in the Bulletin of the Atomic Scientists, pro-nuclear Social Democrats and the Greens that were represented in the Bundestag from 1983 - demanded phasing down of all nuclear plants in Germany after the Chernobyl meltdown¹⁰¹. Environmental concerns and anti-nuclear movement marked the start of the about the environmentally-friendly sources of energy.

With the change in government in 1998, when the SPD and Greens came to the government and decided to improve legislation for renewables. The most important Social Democrat Herman Scheer pressed for the development of law for renewable energies the law came into force in 2000 which improved the market conditions of renewable energy and consumers of it. In that time, the

⁹⁹ Personal interview with Rainer Hinrichs-Rahlwes. He is the Vice-President of the European Renewable Energies Federation (EREF) and a board member of the German Renewable Energy Federation (BEE).

¹⁰⁰ Personal interview with Hinrichs-Rahlwes

¹⁰¹ Lutz Metz (2012) Bulletin of the Atomic Scientists 68(6), 23

competitiveness issue was at the table and German legislators needed to answer this problem through subsidies. Fuelled by subsidies, German producers engaged in the renewable energies sector which set the scene for the growing renewable energy market.

With the Renewable Energy Act in 2000, the competition on the market increased and the tuning of the tariffs happened (costs were lower, the number of installations increased). However, the pace of the energy transition was not really high and improvements were needed. The institutional foundations of *Energiewende* are set in the EEG law and the Monitoring Commission delivers reports on the state of affairs of energy transition in Germany which I will analyze later.

In 2010, the economic and financial crisis caused the contraction in the renewable energy development and marked the end for many producers of energy which coupled with the issue of competitiveness¹⁰² posed a big challenge for the incentives for an energy transition. Many countries around Europe decided to stop supporting solar energy and, joined by the dramatic cuts in tariffs (cuts or increases in subsidies), the constant and ever more successful competing Chinese modules caused the closure of many solar producers in Germany due to their lower price and same level of effectiveness.¹⁰³ The solution were EU's imposed duties on the import of underpriced Chinese solar panels¹⁰⁴ which were not lifted until Chinese firms accepted the minimum price. At that particular moment, German governing coalition from FDP and CDU/CSU wanted to postpone

¹⁰² The German Solar Energy Crisis: Looking for the Right Incentive Scheme ParisTech Review / Editors / April 13th, 2012 <http://www.paristechreview.com/2012/04/13/german-solar-crisis/>, accessed 22.05.2014.

¹⁰³ Personal interview with Hinrichs-Rahlwes, more at: China on Pace to Become Global Leader in Renewable Energy <http://www.worldwatch.org/node/5497>, accessed 23.05.2014

¹⁰⁴ After nine months of investigation ([MEMO/12/647](#)), the European Commission found that Chinese companies are selling solar panels to Europe far cheaper than their market value is. Prices should be 88% higher than the price to which it is actually sold; more at: <http://www.euintheus.org/press-media/eu-imposes-provisional-anti-dumping-duties-on-solar-panel-imports-from-china/>, accessed on 26.05.2014.

the exit from nuclear energy due to the competitiveness issue, however Fukushima changed this attitude.

After the reactor catastrophe in Fukushima¹⁰⁵ in 2011, black-yellow coalition although previously extending the working time of nuclear plants, decided to phase out all nuclear plants until 2022. The government embraced the new policy and holds the direction of energy transition. The implications of the policy were the following: (1) the increased dependence on gas imports, (2) the need for more efficient renewable energy production and (3) the need to find a supplementary resources to generate power (electricity)¹⁰⁶. The ambitious targets which need to involve external actors as EU are the factor that makes the “*Energiewende*” a geopolitical project which is already internationally known.

The biggest barriers to *Energiewende* in Germany are high costs of it¹⁰⁷ and various uncertain conditions which are required to implement the energy transition. Incumbent energies want to extend the lifetime of nuclear plants, the cheap and abundant coal in Germany wants to get more share in the market and other gas and oil lobbies want to gain as much as they can on their investment¹⁰⁸, but lobbying for renewables is also developed.

¹⁰⁵ “The accident in Fukushima, in which a fully modern nuclear power plant in a developed country was in the center of an accident, the persuasion of the CDU/CSU and FDP program titled “Austieg aus dem Austieg” (exit from the [nuclear] exit) was not anymore politically possible with the German public” in: Maja Fjaestad and Petri Hakkarainen: “Sweden, Finland and the German *Energiewende*” (2013) Friedrich Ebert Stiftung, 1

¹⁰⁶ Personal interview with Hinrichs Rahlwes

¹⁰⁷ “For private households and the majority of businesses, the current price 2002-2012 increased by more than 83 percent - as strong as in any other industrialized country, shared with the consulting firm BDO and the Hamburg Institute of International Economics”. <http://www.sueddeutsche.de/wirtschaft/energiekosten-in-oecd-laendern-deutsche-zahlen-zweithoechste-strompreise-1.1959449> accessed on 24.05.2014.

¹⁰⁸ Personal interview with Hinrichs-Rahlwes.

¹⁰⁹ However, by distributing the burden of costs to the whole German population and by ensuring that the “narrative” of the energy transition legitimates itself in principles of environmental protection, long-term self-reliance and long-term growth possibilities for the German economy (welfare, jobs and added value made in Germany) the policies go further.

“Energy of the future” reports and parliamentary debates – Germany as a leader and a state with a responsibility

The geopolitical narrative of “Energiewende” has various elements that characterize it and I was tracking those elements in two reports prepared for the German parliament and through parliamentary debates after the elections in December (18th election period). The title “Energy of the Future” of those reports shows the assumption from the German government and experts that the future will be shaped by other resources and Germany needs to be prepared.

“Energy of the future” reports to the German parliament

The first report to the German Parliament, states that the energy transition (*Energiewende*) *reduces the reliance on fossil fuels and guarantees Germany higher energy independence*¹¹⁰. The threat of energy dependence in the long-term can endanger German energy-intensive economy and therefore one of the key solutions for it is renewable energy. Goals of diminishing energy dependence and the diversification of energy supply clearly fall under energy security

¹⁰⁹ See more in: Kathrin Suhlsen, Matthijs Hisschemoller, “Lobbying the ‘Energiewende’. Assessing the effectiveness of strategies to promote the renewable energy business in Germany” Energy Policy 69 (2014)

¹¹⁰ First Monitoring Report “Energy of the future” German Federal Ministry of Economics and Technology (BMWi), for the German Parliament, December 2012

considerations and therefore are used as elements in the new geopolitical narrative that gives a role to renewable energy.

Further on, the development of renewable energy will *deliver cheaper technologies* through technical improvements and will be an alternative to ever increasing prices of fossil fuels.¹¹¹

According to the study published by the German Federal Office for Environment, Germany's role as a frontrunner in climate protection and energy transition led to its share of around 15.2 of the world trade in environmental protection goods.¹¹² If we take a look again at the Appendix 1, we can see that the interest of Germany in this game is to gain credibility in global markets and to export technologies it developed through costly investments.

Another aspect of the energy transition is its profitability (*Wirtschaftlichkeit*) which is important for the technological and economic competitiveness of Germany in the global market¹¹³. Germany needs to be made *a business center* (“*Wirtschaftsstandort*”) and needs to build its image as an *exporting nation* through *new technologies and products, new export possibilities* that will enhance *employment and welfare* in the whole country.¹¹⁴ This element in the report significantly contributes to the geo-economic argument where Germany is trying to compete with other producers in renewable energy industry. If we assess the current prices of electricity in Germany

¹¹¹ First Monitoring Report “Energy of the future” German Federal Ministry of Economics and Technology (BMWi), 18

¹¹² German Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety report 01/2014: Economic factor conservation Production - Foreign Trade - Research - Patents: The performance of the environmental protection industry in Germany, study available at: <http://www.umweltbundesamt.de/publikationen/wirtschaftsfaktor-umweltschutz-0> accessed 25th of May.

¹¹³ First Monitoring Report “Energy of the future” German Federal Ministry of Economics and Technology (BMWi), 21

¹¹⁴ Ibid.

as of today, Germans are paying approximately 40 per cent higher prices of electricity which has big implications to German industry and citizens. Profitability can be made if Germany will achieve the economy of scale in the European Union where prices would slowly decrease and the costs of the energy transition would be lower.

As written above, the importance of the increased energy efficiency is crucial for the German Government since the energy transformation (transition) to renewables is not only possible with a top-down approach. The German government encourages enterprises and households to enhance the energy efficiency of their infrastructure¹¹⁵ and therefore fuel the energy transition from the bottom.

The report highlights the foreign policy component of the energy transition and is one of the most important elements in their striving for a world-wide climate protection instruments. In addition to the climate change reversal, the German Government is engaged in selected crucial states projects of political communication, for the enhancement of sustainable politics and to popularize topics of climate change negotiations.¹¹⁶ The perception of energy transition by the government is that Germany is the first big industrialized nation that decided on this way of more efficient and climate friendly energy supply.¹¹⁷ Political communication is used as an instrument of raising awareness of problems in the world and will increase the credibility of the German government in countries where the cooperation emerged. As already mentioned in the table 1 (Appendix 1), it is important to *influence the development models* in the post-Kyoto era, because development models

¹¹⁵ First Monitoring Report “Energy of the future” German Federal Ministry of Economics and Technology (BMWi), 21.

¹¹⁶ Ibid, 8

¹¹⁷ Ibid, 104

and environmentally-friendly technologies will be needed in case awareness raising process gives results.

Important element in the energy transition, as highlighted in the report, is increased need *for “financial help”* from the government for research to *“enhance the leadership role”* of German enterprises in the technology markets.¹¹⁸ The German government needs to address the competitiveness of its firms in the international arena in which increasingly subsidized companies from China are participating¹¹⁹, raising awareness of importance of renewables in the future (International Renewables Agency, climate change negotiations etc..) and diffusion of expensive technologies to other states as it is highly important to develop a strategy that will result in positive cost-benefit results.¹²⁰ The report also shows that *international specialization of production* is important for German enterprises due to their increased competitiveness in the market.¹²¹

In addition to expenses on R&D, the German government established the Energy and Climate funds in order to broaden the instruments of enhancing the energy transition in Germany.¹²² The funds would finance the development of technology but will also include the development of infrastructure that is needed to transmit the produced energy from one area to another.

¹¹⁸ First Monitoring Report “Energy of the future” German Federal Ministry of Economics and Technology (BMWi), 106.

¹¹⁹ The Explosive Rise of Subsidies to Chinese Industry How China’s Mercantilism Hurts the Global Economy, read more at: <http://thebreakthrough.org/index.php/programs/economic-growth/the-explosive-rise-of-subsidies-to-chinese-industry>

¹²⁰ According to the first report, the expenses increased from 401 million euros in 2006 to 647 million euros in 2011 (61 % higher).

¹²¹ First Monitoring Report “Energy of the future” German Federal Ministry of Economics and Technology (BMWi), 229

¹²² Projects in the area of renewable energy, energy efficiency and electricity transmission.

The first report by the German government and the expert team to the German Parliament highlights the importance of the European climate protection policy and states that German energy transition is closely linked to it.¹²³ In addition to the climate protection aspect, they highlight the importance of the European Energy Policy for the German energy transition due to interdependence in various areas. Examples of interdependence are the phasing out of nuclear plants that will have ramifications to the electricity supply for the neighboring countries (and other EU countries).¹²⁴ Throughout the report, one can identify two biggest challenges and goals “*Oberziele*” of the German energy transition: “decreasing the GHG emissions at 40 per cent until the year 2020, and the exit from the nuclear energy until the year 2022.”¹²⁵

In the second report of the German government and the expert team to the German Parliament, the triangle in terms of energy policy includes environmental sustainability, profitability and energy supply security.¹²⁶ The importance of the affordability and profitability of the German energy transition is in the fore of the report and the costs of the transition need to be closely analyzed and need to be used for further planning. What the “affordability” and “profitability” mean in the strategy is *achieving the economy of scale* by engaging more local producers, and other interested states in the development of the renewable energy. This would lower the expenses for the production of renewables and would achieve the bigger international market for renewables.

¹²³ First Monitoring Report “Energy of the future” German Federal Ministry of Economics and Technology (BMWi), 139

¹²⁴ Ibid.

¹²⁵ Ibid, 151.

¹²⁶ Second Monitoring Report “Energy of the future” German Federal Ministry of Economics and Technology (BMWi), for the German Parliament, April 2014, 13

International activities of the German government include dialogues on climate protection policies with Mexico, South Africa, China, Thailand, Philippines, and others.¹²⁷

The German Government wants the energy transition to succeed and to lead by example in the international community and states that the energy transition is a big challenge for Germany but will lead to higher standards of environmental and climate protection, will make Germany more independent of imports and will enhance welfare, create jobs and added value in Germany.¹²⁸ If we analyze the above mentioned statement from the report, we can see that the long-term perspective is increasingly in the fore of the discussion and reaffirms the commitment to more engagement in energy transition, although the costs are rising.

Due to the competitiveness issue and possible lowering of subsidies in Germany with the new reform of the Renewable Energy Act (pressured by the European Union), Germany needs to find ways how to keep its firms competitive in the renewable energy market. Rainer Hinrichs-Rahlwes, stated that many firms went out of Germany in order to produce due to the expenses they have to pay in order to remain profitable within the country's economy.¹²⁹ As already mentioned, the year 2010 was deadly for many German solar panel producers and most of them were sold to foreigners. Goals of protecting environment and the climate are used as arguments for a general direction

¹²⁷ Second Monitoring Report "Energy of the future" German Federal Ministry of Economics and Technology (BMWi), 102

¹²⁸ Ibid.

¹²⁹ Consumers are paying the higher fixed price for electricity and their bills are higher every year. An average household now pays an extra €260 a year to subsidize renewables: which is in total in 2013 approximately €16 billion. Costs are also going up for companies, making them less competitive than rivals from America, where energy prices are falling thanks to the shale gas boom. In order to save jobs, German government gave exemptions to companies so these could remain competitive in the global market. More at: <http://www.economist.com/news/europe/21594336-germanys-new-super-minister-energy-and-economy-has-his-work-cut-out-sunny-windy-costly> accessed on [20.05.2014](#).

which gives an image of Germany as a “Vorbild” or a frontrunner and a role-model that has the ability to do this challenge. In addition to the general goal, the goal that contains the “energy security” argument is that German energy-intensive economy will generate more energy within the country and therefore will employ and develop certain technologies in renewable energy sector [that could be exported as an added value].

The report highlights the importance of the diffusion of technologies for the continuation of the energy transition in Germany and around the world. The transfer of technology and sharing of know-how is very important for the German Government (from North to South) but also, German Government strives to sign a treaty that will define the cooperation in knowledge and information sharing between different interested states.¹³⁰ *The patents and other related property rights* are important here in order to protect the technological advances by certain producers (most particularly German ones). If we want to talk in terms of a technological advancement, the one who manages to *standardize the technology* in a certain branch, is the one whose patents are welcome on the global market. For that, each company needs to develop its *credibility* on the market with successful implementation of certain technologies. Later in parliamentary debates we will see the importance of the perception “credibility in implementing the energy transition” which will open new markets for the German firms.

Analyzing both reports, Germany wants to: (1) become a leading nation in the usage of renewable energy on all levels of production, (2) decentralize the production of energy to all citizens willing to engage in energy transition, (3) build storage capacities and (5) build new transmission grids

¹³⁰ Second Monitoring Report “Energy of the future” German Federal Ministry of Economics and Technology (BMW), 200

with affordable costs. Although the costs are high, the new governing Coalition pursues the *Energiewende*.

Parliamentary debates in the 18th election period

During the analysis of parliamentary debates, I was concentrated on the context the term *Energiewende* was used and aimed at identifying the arguments which parliamentarians used in order to give arguments in favor of the energy transition.

Frank Schwabe from SPD highlighted in a parliamentary debate on energy transition that Germany needs front-runner alliances in order to better promote climate protection goals.

The term of the energy transition is - that was interesting at the conference - in fact, a term that can spell out all: whether Chinese, people from Bangladesh, Nigeria, Peru, and Mexico, all of them could tell us what energy revolution means.¹³¹

He added that Germany has a responsibility to come to the international and European arena and to lead by example in climate protection policies which will further its energy transition. “Leading by example” gives a crucial role to Germany in climate protection policies and if we assess the qualities of a leader in climate protection policies, this leader has the best effective environmentally-friendly technologies and is able to use it.

Furthermore, the German Chancellor Angela Merkel during the parliamentary session on 29th of January 2014 highlighted that the world is looking at Germany whether it will manage to

¹³¹ German Parliament, Parliamentary session 3, election period 18, 28.11.2013,

implement its energy transition. She added, if Germany manages to be successful, this will be another German ‘bestseller’ (“Exportschlager”) which could be exported.¹³² Her strong statement gives an overview of her beliefs: “I am convinced that if some country can be successful with energy transition then it is Germany.”¹³³

German Federal Minister of Economics and Energy Sigmar Gabriel during the parliamentary session in January, 2014, highlighted the costs of the German energy transition, however he highlighted that Germany needs to show other states that a successful industrialized state can be compatible with the energy transition¹³⁴. The geopolitical narrative I am tracking, has the element of “we need to show”, we need to “lead by example” and therefore legitimizes the costly investments and subsidies in the renewables sector. The minister also stressed that in the case of a failure, the climate protection stance that is promoted by Germany will not be attractive for other countries.¹³⁵ Through this statement, “failure” is used in order to mark the unwanted scenario which will put the climate protection outside the international debate, if Germany does not manage to keep it as the topic with the implementation of *Energiewende*. A significant message is also that the model Germany is using will not be attractive to others if it will fail, which means, the expectation is that the German success will be attractive to others and others will implement it.

Leading by example and the reputation in the international community is important for German parliamentarians and this leading role of Germany could be found in many statements. As

¹³² German Parliament, Parliamentary session 10, election period 18, 29.01.2014; page 565

¹³³ German Parliament, Parliamentary session 10, election period 18, 29.01.2014; page 565

¹³⁴ German Parliament, Parliamentary session 11, election period 18 30.01.2014, page 668

¹³⁵ German Parliament, Parliamentary session 11, election period 18 30.01.2014, page 669

Germany is aiming to define its role in the international community as a first industrialized country that is pursuing radical change of their energy system, it is important for them to prove that it is possible for them to be successful. For that to prove, Germany needs to invest money, develop new technologies and open new markets in order to help others on the way to climate protection.

One of the active members of SPD during the Parliamentary session 11, Hubertus Heil (Peine) stated that Germany has a big chance (“Riesenchance”) with its energy transition.

We can be in a world that is increasingly energy-hungry and has a growing population, the *supplier for modern energy technologies*. We have been a leader in many areas. But, in order to achieve that, we need to obtain *credibility* that will come if we manage to implement the energy transition in our country. We will strive to *achieve a safe, clean and affordable energy supply for us* and then we will be *attractive* for other countries.¹³⁶

Germany needs a successful internal implementation of energy transition and it will influence its future exporting possibilities. Here we can see the dominant narrative in which the energy transition needs to be further implemented, especially in the area of research and development of new renewable energy technologies. In order to become a supplier, Germany needs to show everyone that it is capable of doing the transition alone, and this transition will then become the ‘bestseller’ and will have a label “Made in Germany”.¹³⁷ During the 30th parliamentary session, Hubertus Heil (Peine), also stated that if Germany will manage its energy transition – exit from

¹³⁶ German Parliament, Parliamentary session 11, election period 18, 30.01.2014, page 679 (emphasis added)

¹³⁷ Germany as a pioneer and a role-model, read more at: http://www.dena.de/themen/die-energiewende-das-neue-system-gestalten/international-begutachtet-die-energiewende-made-in-germany.html?tx_dscoverview%5Bliste%5D=1&tx_dscoverview%5Bpluginid%5D=21172; accessed on 29.05.2014.

the nuclear energy and access to renewable energy, new opportunities will be open for German technology in the world market.¹³⁸

During the 12th parliamentary session, Steffen Kanitz from CDU/CSU, stressed that the societal and political consensus for the exit out of nuclear energy in German society exists and will remain, and that Germany needs safer, cleaner and affordable energy policy.¹³⁹ On this particular session, the SPD spokesperson on energy issues Wolfgang Tiefensee emphasized the importance of *Energiewende*, which offers a possibility for the support to industry, for the development of new technologies and products which then could be sold on new markets and which would generate more jobs in Germany.¹⁴⁰ He added that Germany needs to be a leader, but also needs to consider its neighbors which need to follow the German example. During the session, the technological aspect of the energy transition was highlighted, and Peter Stein from CDU/CSU emphasized that Germany needs to develop the “know-how” in order to hold and stabilize German position as a leader in technology.¹⁴¹

The member of the German Parliament Barbel Hohn from the Alliance 90/Greens, asked a question to the government during the 16th parliamentary session about the format of partnerships with other states concerning renewables and climate change. The answer was quiet general and included that Germany is engaged in sharing the experience and know-how with other states and this should *help achieve goals* of *Energiewende* within Germany, as well as internationally during the

¹³⁸ German Parliament, Parliamentary session 30, election period 18, 10.04.2014. page 2450

¹³⁹ German Parliament, Parliamentary session 12. election period 18, 31.01.2014, page 867

¹⁴⁰ German Parliament, Parliamentary session 12. election period 18, 31.01.2014, page 687,

¹⁴¹ German Parliament, Parliamentary session 12, election period 18, 31.01.2014, page 696

negotiations on the *new climate treaty*.¹⁴² From the personal interview I had with Rainer Hinrichs-Rahlwes, the international engagement can hardly give some results, however Germany has to be engaged abroad in questions of climate protection in order to legitimate its policies domestically.¹⁴³

Dr. Georg Nüßlein from CDU/CSU, during the 22nd Parliamentary session, highlighted that actors in Germany need to engage in a constructive dialogue in order to shape the *Energiewende*, in the way that the German economy will not be on its knees at the end of the energy transition. He warned that if Germany will not be successful in its energy transition, no one will follow them on their path. Then “*Energiewende* would be an island-solution, which will not interest anyone else”.¹⁴⁴

In the same direction during the 25th Parliamentary session, Dr. Thomas Gebhart, from the CDU/CSU fraction, emphasized the branding of “the German *Energiewende*” and its acknowledgment in the world. However he also stated that the German energy transition will be a model for other countries in the future, *only if* Germany will manage to implement the change, in a way that the energy supply is secure, that the prices are affordable and that the change does not drift apart the industry in Germany.¹⁴⁵

¹⁴² Printing edition 18/527, Question 29; German Parliament, Parliamentary session 16, election period 18, 19.02.2014, page 1199

¹⁴³ Personal interview with Rainer Hinrichs-Rahlwes

¹⁴⁴ German Parliament, Parliamentary session 22, election period 18, 19.03.2014, page 1715

¹⁴⁵ German Parliament, Parliamentary session 25, election period 18, 02.04.2014, page 1982

The better the energy transition succeeds, the higher will be the chances that we will find an imitator (“Nachahmer”); and the sooner we will be able to give a real and big contribution for the international climate protection.¹⁴⁶

The member of the German parliament, Katrin Goring-Eckardt, from the Alliance 90/Greens, on the 20th parliamentary session warned that in the context of sanctions to the Russian Federation after the events in Crimea, Germany is dependent on imports of Russian oil and coal and if Germany will slow down the energy transition, It will enlarge the dependence on Russian Federation. In her speech, she concluded that Germany needs to strongly pursue the *Energiewende*.¹⁴⁷

The coordinator for energy policy of the CDU/CSU fraction and the member of the German parliament, Thomas Bareiß, stated that EU needs common binding goals, the harmonization of decision-making, the enhanced single market for energy and common infrastructure. Therefore, we need more Europe in energy policy and we have to work together. He also defined Germany as a “*forerunner in energy policy*”, as a “*step-maker in Europe and in the world*”, and as a “*world champion in the building up of the renewable energy*”¹⁴⁸ because of ambitious goals set before the country.

Sigmar Gabriel, Federal Minister of Economics and Energy, during the 33rd Parliamentary session clearly stated that their aim is to find an *imitator of the energy transition*, and that Germany does

¹⁴⁶ German Parliament, Parliamentary session 25, election period 18, 02.04.2014, page 1983

¹⁴⁷ German Parliament, Parliamentary session 20, election period 18, 13.03.2014. page 1528

¹⁴⁸ German Parliament, Parliamentary session 20, election period 18, 13.03.2014. page 1549

not want to foster climate protection alone, but wants to make others follow its path.¹⁴⁹ Once more in his speech, he highlighted that this will only be possible when the energy transition *will not harm* the industrial success of the country. During the discussion after the speech, Hubertus Heil (Peine) from the SPD, again restated that Germany needs credibility in the implementation of its energy transition, which will enable it to export developed technologies in the future.¹⁵⁰

Speeches in the parliament show that Germany wants to be role-model for other states and is looking for an imitator who will buy the *know-how* from them. They will be a role-model only if they manage to implement the energy transition, which will depend on their commitment and the cooperation of other European states.

¹⁴⁹ German Parliament, Parliamentary session 33, election period 18, 08.05.2014. page 2699

¹⁵⁰ German Parliament, Parliamentary session 33, election period 18, 08.05.2014. page 2708

CHAPTER 3. Germany as a “frontrunner”, Energiewende as a ‘bestseller’ – think tanks and external perspectives as a legitimation for the geopolitical narrative

Think tanks in Germany that I analyzed are in favor of the German energy transition and mainly investigate various perspectives and elements of the transition that need improvement. They contribute to the general narrative that energy transition will bring Germany energy security, will build its “image” and “credibility” in the climate protection arena and will enhance their technological position in the production chain of renewable energy technologies. General direction of their comments highlights the importance of the EU’s climate and energy agenda, of finding partners that will buy technologies and engaging globally with energy transition ideas etc. These elements contribute to the geopolitical narrative that helps Germany ensure its economic interests and the long-term affordable energy supply security. In addition to think tanks, German officials promote the agenda of energy transition through forums and various bilateral agreements.

Think tanks and the German energy transition leadership role and as an example to others

Kirsten Westphal, the analyst responsible for energy policy, from Stiftung Wissenschaft und Politik writes that, states need to plan the energy policy until 2050 because the increase in the population to 9 or 10 billion people is expected¹⁵¹ and the demand for energy will be higher. Bearing that in mind, Germany is playing a “global pioneering role” (*“Vorreiter”*) and wants to

¹⁵¹ Kirsten Westphal “Globalising the German Energy Transition” SWP Comments 2012/C 40, December 2012, 2

transform its energy system and offer the world an example of a transition-phase to renewables from nuclear and fossil fuels fuelled economy.¹⁵² Through the analysis of various texts published by Westphal, Fischer, Geden and of speeches by ministers which will be shown later. Germany is aware of its task and its position, and will pursue the energy transition in order to show others that it is possible to combine sustainability and economic growth.

Kirsten Westphal, adds that the rising demand for energy in North African states will influence future exports from those countries to the European Union. She highlights the importance of the development of renewable energy sources together with those countries in order to ensure future energy security in Germany and Europe.¹⁵³ Projects that involved German companies either include only the information-sharing, or can include also the building up of transmission grids for electricity to North Africa as DESERTEC¹⁵⁴.

Another important dimension of the German energy transition, mentioned by various think tanks, is its European dimension. Oliver Geden and Severin Fischer from the Stiftung Wissenschaft und Politik analyzed effects of the EU's policy on the Germany's *Energiewende*. Their two main claims are that (1) Germany will not be able to further its energy transition without the cooperation of other European Union member states due to the need for its compatibility with EU legislation¹⁵⁵ and (2) that it needs cooperation with the EU to avoid blackouts and/or the increased usage of coal

¹⁵² Kirsten Westphal "Globalising the German Energy Transition", 2

¹⁵³ Interview with Kirsten Westphal in LUX magazine at: <http://www.es-werde-lux.de/site/interview/ein-strategisches-gebot-656/> accessed on 26.05.2014.

¹⁵⁴ German companies went out of the DESERTEC business: Is This The Death Of The Desertec Dream?, read more at: <http://www.forbes.com/sites/timworstall/2012/11/19/is-this-the-death-of-the-desertec-dream/>, accessed on 20.05.2014.

¹⁵⁵ Severin Fischer and Oliver Geden, "Moving Targets": SWP Research Paper 2014/RP 03, March 2014, 26;

or gas-fired plants in the production of energy.¹⁵⁶ Daniel Buchan clearly marks the interest of Germany in pursuing the EU member states to follow the path Germany is heading. He states that Germany has interest in building more “cross-border electricity and gas interconnectors” and needs to pursue “European Commission’s proposals to speed up the permitting and help the financing of priority pan-European energy infrastructure.”¹⁵⁷ In addition to these two interests, Germany could rely on its neighbors’ energy capacity and would spare money from building bigger storage capacities(in case of electricity shortages). Last, but not the least, Daniel Buchan states that Germany wants to “raise energy efficiency standards of products put on the European market.”¹⁵⁸

Recent press release and subsequent measures on state aid by the European Commission significantly helped the prolongation of possible state aid in the environmental protection and energy matters¹⁵⁹ which could help further implementation of the German energy transition. By assuming the role of a “frontrunner”, and by making partnerships within the EU, Germany is aiming to gathering a coalition which will put on the table more efficient technologies in renewable energy sector. This would open new markets for German firms.

¹⁵⁶ “Brussels vs. the German Energy Transition” 14 Jan 2014 at: <http://energytransition.de/2014/01/brussels-vs-the-german-energy-transition/> accessed 24.05.2014.

¹⁵⁷ David Buchan, “The Energiewende – Germany’s gamble”. SP ,Oxford Institute for Energy Studies, 26 June 2012, 34: <http://www.oxfordenergy.org/wpcms/wp-content/uploads/2012/07/SP-26.pdf> accessed on 24.05.2014.

¹⁵⁸ Ibid.

¹⁵⁹ Press release: http://europa.eu/rapid/press-release_IP-14-400_en.htm, accessed on 22nd of May, 2014

Christian Huebner, the analyst at the Konrad-Adenauer-Stiftung, wrote that Germany "has reclaimed its position as one of the leading industrialized nations in the world."¹⁶⁰ He has identified three action areas for the German energy transition: energy policy in the EU, EU external energy relations and the international energy governance and emerging economies.¹⁶¹ In order to align its own interests and the goals on the EU level, Germany will need to engage in bilateral partnerships¹⁶² in the EU in order to pursue its objectives.¹⁶³

Huebner adds that a European energy infrastructure and the establishment of a functioning internal market for performance-based electricity and gas energy sources are prerequisites for the success of the German energy transition.¹⁶⁴ The issues arising from the independent energy transition will lead to competition issues in Europe (subsidies under the German Renewable Energy Law), however, energy supply shortfalls and surplus could be mitigated with one integrated distribution. On that note, Germany pursues the European Union that is currently discussing the energy and climate targets¹⁶⁵ for 2030 and this framework will "create security for investment in EU energy

¹⁶⁰ Huebner, Christian (2013) "Germany's Foreign Policy and the "Energiewende" - Action Areas and Approaches", 3

¹⁶¹ Ibid.

¹⁶² "Green Weimarer Dreieck which gathers environmental ministers of these countries, agreements signed with France, Great Britain, Denmark etc.

¹⁶³ Germany already signed partnerships with the Great Britain and France.

¹⁶⁴ Hübner, "Germany's Foreign Policy and the "Energiewende" – Action Areas and Approaches", 4.

¹⁶⁵ Germany was also a part of the "Green Growth Group Ministers" that issued a joint statement on the 3rd of March 2014 on a climate and energy framework for 2030 which urges the European Council and other member states to participate in setting climate and energy goals until 2030. "Hat-trick 2030" the statement wants are renewable energy share in electricity-generation, energy efficiency and the reduction of GHG emissions. Statement can be found at: http://www.bmub.bund.de/fileadmin/Daten_BMU/Download_PDF/Europa_International/green_growth_group_erklaerung_en_bf.pdf accessed on 25.05.2014.

infrastructure, but also in research and development in the field of low-carbon technology.¹⁶⁶ As we already mentioned, investments in R&D are making the difference in the whole global competition around renewables and increasing number of patents, accompanied by the credibility in the production of technology, means further markets and new added value created. Joint research in the EU means burden-sharing and subsequent cut in expenses for each participating state.

Dirk Messner and Jennifer Morgan from the German Development Institute write that Germany's "Energy Transformation is currently the world's most ambitious project for transforming a fossil-fuel and nuclear-based high-performance economy into one that is climate-compatible".¹⁶⁷ They also concluded that the Energy Transformation can bring Germany much wanted "soft power in the foreign policy field."¹⁶⁸ In the international community, the reputation of the state is the most important and Germany is "considered to have the ability to develop solutions to one of the world's greatest problems; a pattern of growth that everyone knows leads directly to climate crisis."¹⁶⁹

Internal policies of subsidizing of renewable energy in Germany, especially in the wind and photovoltaic installations, significantly influences the electricity wholesale prices in the entire market in the EU. Fischer and Geden highlight the fact that the Benelux countries and France profit from the decline in prices of electricity.¹⁷⁰ Fischer and Geden assert that Germany needs to pursue the decision by the European Council (in June) in order to set "ambitious targets for emissions

¹⁶⁶ Christian Hübner, "Germany's Foreign Policy and the "Energiewende" – Action Areas and Approaches" No. 131 October 2013, 3

¹⁶⁷ Dirk Messner and Jennifer Morgan, "Germany needs an Energy Transformation foreign policy" German Development Institute, World Resources Institute, The Current Column, 7 January 2013, 1

¹⁶⁸ Ibid.

¹⁶⁹ Ibid.

¹⁷⁰ Fischer and Geden, "Moving Targets", 27

reduction, expansion of renewable energy, and the increase of energy efficiency”¹⁷¹ which would help Germany stay on its track of energy transition. The process of negotiation within the EU will significantly influence the future continuation of the German energy transition, and the stakes are high for the German side.¹⁷² Important to note, the energy transition of Germany is small in comparison with other world producers and Germany needs the EU to act as a global player in order to promote its technological advancement through constant arguing in favor of topics as climate change, energy security and renewable energy sources. Germany needs high EU standards to lower the costs of its energy transition and needs to keep the European Union on its side in order to block the market from other products that are underpriced and cheaper than the German ones. To conclude, although not broadly discussed by think tanks, Germany needs EU-wide climate goals in order to (1) better accommodate differences in metrological and topographic characteristics, (2) and therefore to lower the costs of its investments in transmission grids and storage capacities, which will lead to (3) lower prices of electricity for the German population and their better competitiveness in the global market. The standardization of products in the market would also help Germany improve its products.

Foreign policy and the legitimization of the geopolitical narrative in front of the domestic audience

The foreign policy aspect of the energy transition is currently not that much elaborated by authors from think tanks, however, Oliver Geden, Kirsten Westphal from the Stiftung Wissenschaft und

¹⁷¹ Fischer and Geden, “Moving Targets”, 26

¹⁷² Ibid, 29.

Politik and Christian Hubner from the Konrad Adenauer Stiftung contribute to this discussion. Kirsten Westphal claims that the foreign policy aspect of the *Energiewende* needs to be improved in order to minimize the economic risks of such a costly transition and to use the big opportunity from it.¹⁷³ Forums for discussing renewables are among others: the International Renewable Energy Agency, the International Partnership for Energy Efficiency Cooperation (IPEEC) as a platform for exchanging knowledge in energy efficiency etc.¹⁷⁴

Kirsten Westphal makes a valid contribution to the whole discussion on effects of the energy transition for domestic and external relations. Promoting German energy transition abroad (and in the EU) helps Germany develop the economy of scale and lower the costs of technologies needed to produce renewable energy. Therefore, Germany needs “international cooperation, commercialization and interconnectedness”¹⁷⁵ in order to make its own energy transition less costly. To this discussion, Oliver Geden adds the interest of Germany in promoting its own model across Europe and world-wide would expand the market for German products. It would also lower the costs of “*Energiewende*” in two aspects: “power generation would be more efficiently distributed across Europe, taking better account of meteorological and topographical aspects”, and “the demand for new technologies outside Germany would increase.”¹⁷⁶ The background for the international connectivity ensures short-term energy supply security in case of supply shortfalls, and also offers a possibility the surplus of produced energy to be sold abroad. Last aspect of the

¹⁷³ Westphal “Globalising the German Energy Transition” SWP Comments 2012/C 40, December 2012, 7

¹⁷⁴ Ibid.

¹⁷⁵ Westphal “Globalising the German Energy Transition”, 3

¹⁷⁶ Severin Fischer, Oliver Geden, “Europeanizing the German Energy Transition SWP Comments 2011/C 33, November 2011, 4.

German energy transition contributes to the transfer of technology to other states in the world and can contribute to international security and conflict preventions all around the world.¹⁷⁷ According to Kirsten Westphal, Germany is leading the campaign during international climate negotiations and pursues the development of the EU Climate and Energy Package due to its “economic significance and its industrial structures”, as well as its double goals of “exiting the nuclear energy and the decarbonization of its energy system.”¹⁷⁸

During the last OECD meeting in Paris, German Chancellor Merkel stated Germany’s concerns with energy policy. She added that the grand coalition has a “Herculean task”¹⁷⁹ before them and that almost a quarter of electricity is generated by renewables¹⁸⁰. Importantly to note in her speech, she stated that: “it is important that the [European] Commission with its rules on subsidies, should not put obstacles in our path with regard to the operation of our energy-intensive industries.”¹⁸¹ Interpretation of these words is that the development of Germany could be slowed down by the Commission and Germany urges them not to make problems to them.

In the international arena, it is important to mention the press release of the Federal Ministry of Economics and Energy titled “Energy transition ‘Made in Germany’ as an export product” during

¹⁷⁷ Westphal “Globalizing the German Energy Transition”, 3.

¹⁷⁸ Ibid, 2

¹⁷⁹ “Herculean task” in terms of implementing the energy transition, reducing subsidies while keeping crucial industries competitive.

¹⁸⁰ According to the German government data, the proportion of renewables in gross electricity consumption in Germany in 2013 increased to 25,4 percent, from the 23.6 per cent in 2012. <http://www.bundesregierung.de/Content/DE/Artikel/2014/03/2013-03-17-strom-aus-erneubaren-energien.html> accessed on 26.05.2014.

¹⁸¹ Speech by Federal Chancellor Angela Merkel to the OECD Conference, 14th of February, 2014

http://www.bundesregierung.de/Content/EN/Reden/2014/2014-02-19-oecd-merkel-paris_en.html

the Clean Energy Ministerial summit in Korea (12-13th of May, 2014), which proved what is the general guideline for the state policy abroad connected with renewables. State Secretary Baake said that learning outcomes of the German energy transition, that will be reached in a “*frontrunner*” state as Germany, will make possible the development of renewables in other regions of the world. In the statement, he highlighted that Germany is a good example for a successful and sustainable technology-transfer, and has put the emphasis on the development of global markets for technological products. The words can be interpreted as we desire open markets because we have quality products and aim to develop opportunities for German firms.¹⁸²

During the EU energy ministerial meeting in Athens on 16th of May 2014, energy supply security after the events in Crimea was the topic. The German State Secretary Rainer Baake stated that East and South European member states of the European Union need to consider the mid-term solution for the improvement of the energy supply security through the climate and energy policy of the Union with its goals until 2020 and 2030.¹⁸³ After pointing out the potentials of the climate and energy policy of the Union, he also stressed out the fact that improvements in energy efficiency and the building up of renewable energy decreases the demand for fossil fuels. It also opens the space for economically productive investments, that will in the mid and long-term give returns on capital. German emphasis on renewables in diversification of energy supply, research and development of new technologies which will ensure profit in the European Union.

¹⁸²Statement by State Secretary Rainer Baake: in Korea: Energiewende ‘Made in Germany’ as an export-‘bestseller’ (“Exportschlagert”) <http://www.bmwi.de/DE/Presse/pressemitteilungen,did=638268.html> accessed on 25.05.2014.

¹⁸³State Secretary Rainer Baake, EU Energy Ministers discuss security of energy supply: <http://www.bmwi.de/EN/Press/press-releases,did=639784.html> accessed on 26.05.2014.

In one of the editions of the newsletters published by the Federal Ministry of Economics, titled “Energy efficiency and renewable energy as export “bestseller” (“Exportschlager”) states that German firms have good chances in the global market with their “*know-how*’ in energy efficiency and renewable energy. The Ministry supports their engagement abroad with finding markets or enabling their approach to markets.¹⁸⁴ We can see that Germany’s intentions and products are recognized by consumers around the world.

The biggest success of German diplomacy was the establishment of a new intergovernmental organization - the International Renewable Energy Agency which is made outside the UN framework and deals with the promotion and development of renewable energy world-wide.¹⁸⁵ As the initiator and the second biggest donor to the Agency, Germany has an interest of making IRENA strong. However, Sybille Roehrkasten and Kirsten Westphal wrote that it was not significant in the last few years.¹⁸⁶ The biggest political rival to IRENA is the OECDs International Energy Agency that was made after the oil crises in 1970s and today is also taking part in the discussions around the renewable energy.¹⁸⁷ As with all patents and licenses that have their own reasoning in the protection of copyrights and property rights, IRENA is used as a platform for the improvement of international technical standards and norms in the renewable energy

¹⁸⁴ Energy efficiency and Renewable Energy as export ‘bestsellers’, read more at: <http://www.bmwi-energiewende.de/EWD/Redaktion/Newsletter/2014/09/Meldung/exportschlager-energieeffizienz-erneuerbare-energien.html> accessed 24.05.2014.

¹⁸⁵ The Statute of IRENA stipulates that all the members of the United Nations and regional intergovernmental economic integration organizations can become members if they will act according to objectives and activities set by the Statute. At this moment, there is 131 members and 35 states started the formal process of becoming members.

¹⁸⁶ Irena Schon vergesesen

¹⁸⁷ Sybille Roehrkasten and Kirsten Westphal. IRENA and Germany’s Foreign Renewable Energy Policy Aiming at Multilevel Governance and an Internationalization of the Energiewende? SWP Berlin Working Paper FG 8, 2013/01, September 2013

production.¹⁸⁸ German interest is the acceptance of patents and the protection of property around the world. Engagement abroad gives an assurance that German energy transition and subsequent measures taken by the government will influence also the global agenda, not just the German one. Last year, German Federal Minister of Environment Peter Altmaier formed the “Club of states for energy transition” (*Club der Energiewendestaaten*).¹⁸⁹ The significance of this establishment, is that it unites ten states who have different energy systems and are different in wealth but have the same goals. These goals are building the proportion of renewable energy to reach a level of import independence and to protect the climate. In the words of the *Frankfurter Allgemeine Zeitung* that characterizes the newly emerged club - “Coalition of the Energiewende-willing”, including China, Denmark, France, Germany, India, Morocco, South Africa, Tonga, United Arab Emirates, the United Kingdom and the Director-General of the International Renewable Energy Agency (IRENA). Altmaier followed the formation in Berlin with following words: “We are determined to work together as advocates and implementers of renewable energy at global level” and added that “We in Germany do not stand alone with our *Energiewende*, but *are a part of a strong group of leaders*.”¹⁹⁰ The Club is used also to foster future activities under the International Renewable Energy Agency and to engage states in international climate negotiations.

¹⁸⁸ Röhrkasten, Sybille and Kirsten Westphal. IRENA: Stay the Course! On the Value of a Multilateral Organisation for Renewable Energy, SWP Comments 37, November 2012, 4

¹⁸⁹ Altmaier establishes “Renewables Club”, read more at: <http://www.faz.net/aktuell/politik/energiewende/altmaier-gruendet-renewables-club-koalition-der-energiewende-willigen-12204368.html> accessed on 20.05.2014. International Renewable Energy association press release; IRENA welcomes the “Renewables Club” http://www.irena.org/News/Description.aspx?NType=A&PriMenuID=16&catid=84&mnu=cat&News_ID=317 accessed on 23.05.2014.

¹⁹⁰ Peter Altmaier’s speech during the establishment of the “Renewables Club”. Emphasis added.

External initiatives by the government will be more visible during the negotiations on the post-Kyoto period, and German diplomacy will most likely engage even more than until now because the new government embraced all the ambitious climate and energy goals within the country.

Conclusion

Since the geopolitics was never associated with the energy transition in Germany and as we could see, a few have written on this topic, my research was aimed to show the existing geopolitical narratives in the German energy security domain and to show elements of the new emerging dominant narrative in the energy security domain. This presents Germany as a leader that is capable of developing new technologies in the renewable energy sector and as a role-model for other countries in the world.

By using discourse analysis, I analyzed: the publications of three think tanks dealing with the German *Energiewende*, various documents of the German Federal Ministries, parliamentary debates, Monitoring reports and online media sources. After 2006, when the first gas crisis happened between Russia and Ukraine, two geopolitical narratives emerged, “a strategic partnership narrative” as in the governmental statements, and the “new Cold War narrative” in newspapers and in the general public. After the finalization of the North Stream, Germany ensured the direct energy-supply from Russia, however, bearing in mind recent events in Ukraine, Germany developed a new long-term strategy. This is framed as a geopolitical narrative that aims to give Germany a leading position in pursuing the radical energy transition to renewables by a country that is fuelled by fossil fuels and nuclear energy. In our understanding, Germany is defining itself as a “frontrunner”, is using climate protection, energy security and long-term self-reliance considerations to legitimize its narrative and therefore is refuting the critics that criticize the costs of the energy transition. International engagement in the EU and in international forums offers further legitimation to the geopolitical narrative because, on the one hand, domestically gives Germans an assurance that country has a position and is standing firm by its position, and

on the other, Germany is through bilateral partnership present at the table when discussing future of the renewable energy and is able to pursue others not to stop their transition (particularly the European Union).

The research I have conducted showed that behind the *Energiewende*, there is a geopolitical narrative in which German officials are framing the discussion about Germany's role in the world. Using arguments of its economic position and a strong industry to achieve its own interest in Europe and worldwide. While promoting strategic partnerships, export of the technology, acceptance of patents abroad and promoting ideas of environmentally-friendly technologies and of climate protection, Germany aims to ensure its own economic prosperity and long-term energy security. Unlike two other narratives that relate to the strategic partnership or a conflictual relationship with the biggest supplier of oil, gas and uranium (Russian Federation), Germany defines its own role in the transformation of its own and of the world's energy system. According to the geopolitical narrative, and as shown both by parliamentarians, official speeches and think tanks, Germany has the means to achieve its goals and to show the world how the energy transition should be done. This geopolitical narrative aims to shape domestic and external policies of the Federal Republic of Germany through the promotion of the development of new technologies that will eventually be sold to other countries that will follow. Die Zeit published various articles titled, "The US Mission to the Moon as a Model for the Energy Transition" or, "The Energy Transition, Model for the World"¹⁹¹, which gave a direction for a discussion whether Germany is indeed

¹⁹¹ Read more at: <http://www.zeit.de/politik/ausland/2013-01/Energiewende-Aussenpolitik>, and <http://www.zeit.de/wirtschaft/2014-04/welt-klimawandel-bericht-modell-deutschland> accessed on 20.05.2014.

leading the “Green Energy Revolution”.¹⁹² It remains to be seen how the government will deal with the costs of the transition, however, we can expect more engagement abroad on climate protection issues as the German industry needs buyers abroad to profit from costly investments in renewable energy technology. Further research of partnership agreements between Germany and other countries in the world could show how Germany is enforcing the external dimension of its energy policy, however, this aspect is outside the scope of my research. If we take a look at Appendix 2, the conclusion would be that the geopolitical narrative will shape the German domestic and foreign policy.

¹⁹² “Green Energy revolution is one of the sections on the Der Spiegel Online web-site: http://www.spiegel.de/international/topic/german_energy_revolution/

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Personal interviews

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Personal interview with Rainer Hinrichs-Rahlwes, the Vice-President of the European Renewable Energies Federation (EREF) and a board member of the German Renewable Energy Federation (BEE).

Personal interview with Dr. Christian Hübner, the coordinator for Environment, Climate and Energy Policy at Konrad Adenauer Stiftung

Appendices

Appendix 1. Geopolitical game – stakes and awards (own design)

Thematical playing fields according to Sainteny in Criequemans ¹⁹³ in	Stakes	Awards
<p>1. Control over technologies that will be developed further</p>	<p>Technology for substitution, recycling and the reuse of materials; transmission grids, position in a production chain, storage capacities</p>	<p>Standardization of technologies, accepted patents with credibility and “<i>know-how</i>”</p>
<p>2. Diminishing energy dependence</p>	<p>Energy supply diversification Securitization of mineral policy Building up of national or regional transmission grids etc.</p>	<p>Bilateral partnerships, joint ventures, national or regional markets for electricity with diversified geographical characteristics etc.</p>
<p>3. Impact on national development models in post-2012 period</p>	<p>new markets for environmentally-friendly technologies, climate protection, sustainable development models</p>	<p>Modernization of energy systems abroad, information and technology sharing, influence on energy mix etc.</p>

¹⁹³ Criequemans, “The geopolitics of renewable energy: different or similar to the geopolitics of conventional energy?”, 21

Appendix 2. Geopolitical narratives in energy security domain in Germany (own design)

	A New Cold War	Strategic Partnership	Energiewende (energy transition)
Subject of the narrative	Dependent and weak Germany and import dependent EU	Economically strong Germany that has financial resources and the technology to modernize the energy industry of a partner	Germany as a “frontrunner” and “role-model” capable of developing new technologies and of leading a new energy revolution in renewable energy
Object of the narrative	Aggressive, irrational, authoritarian and overpowering Russia (in foreign policy issues)	Partner “blessed” with natural resources who needs consumer markets and investments	Climate protection and related consequences; competition with Chinese, Indian and U.S. products, resource conflicts and energy security
Means of the narrative	security considerations; energy as a political tool; revival of areas of influence, finding allies and diversifying energy supply mix (and suppliers)	Economic relations as mutual gains for partners	R&D of technologies, , distribution of costs to the whole society, paying more today for a sustainable future, decreasing dependence on foreign imports, promoting renewables abroad; export of technologies, partnerships with other states etc.
Audience for the narrative	Media, EU member states, allies in NATO	Domestic population, economic actors profiting from those economic relations, EU member states etc.	Domestic population (Bundeslander), European Union member states and developing countries

