# Policy Design in the EU at the Crossroads of Environmental and Energy Fields: Renewable Energy through the Lens of European Integration Theories

Ву

Ivan Sokolov

Submitted to Central European University Department of International Relations and European Studies

In partial fulfillment of the requirements for the degree of Master of Arts

Supervisor: Associate Professor Marie-Pierre F. Granger

Word Count: 14,600

Budapest, Hungary 2011

#### Abstract

The adoption by the European Commission of *Energy 2020 Strategy* on November 10, 2010 was a milestone in the development of renewable energy. The document defines energy priorities for the upcoming decade, as well as sets the actions aimed at establishing "competitive, sustainable and secure energy". Among other goals, this Strategy involves the achievement of breakthrough targets of 20 per cent of renewable energy share and 20 per cent reduction in the carbon emissions by 2020, which is an unprecedented, in its ambition, event in the EU policy-making history. *Why did the Member States agree on this Strategy, which clearly constitutes a hardly feasible goal*, given the two-level character of policy-making in the EU? Moreover, it is puzzling that this goal retained on the EU agenda without a revision in the light of the two waves of enlargement. *Why did the new Member States not insist on the revision of the 20 per cent target*?

The aim of this thesis is to examine these questions by applying selected theories on the EU integration. These include: Liberal Intergovernmentalism (LI), which stresses Member States interests and preferences as main determinants behind the integration; and the New Historical Institutionalism with its concept of path dependence (NHI), which involves 'sunk costs' and 'institutional stickiness' burdening future policy reversal.

#### Acknowledgements

Throughout this difficult and intellectually challenging year several people facilitated my life. In this regard, I am especially grateful to my family, friends and my girlfriend for their entire and unlimited support and faith in my success.

First of all, I would like to express appreciation to all lecturers from IRES department for their passion to subject, broad worldview and creating an intellectually stimulating environment.

I am sincerely thankful to my supervisor Prof. Marie-Pierre Granger for her unlimited patience, critical remarks and extremely useful guidelines in the complicated world of European Integration.

Special gratitude goes to the Centre of Academic Writing, namely to Robin Bellers and John Harbord.

I would like also to thank all my fellow colleagues for the interesting and exciting discussions and wonderful time full of fun and joy that we spent together here in Budapest, I will never forget this year.

Ivan Sokolov,

June, Budapest

# **Table of Contents**

Abstract	ii
Acknowledgementsi	ii
Table of Contentsi	v
Introduction	1
Research Questions	6
Thesis outline	7
Chapter 1: Literature Review and Theoretical Framework	8
1.1. Literature Review	8
1.2. Theoretical framework14	4
Hypotheses1	7
Research Method1	8
Chapter 2: Explaining the Origin of 2020 Target for Renewable Energy on the EU Agenda	0
2.1. The European Commission and the European Parliament as demandeurs of the EU-wide legally binding target for renewables20	0
<ul> <li>2.1. The European Commission and the European Parliament as demandeurs of the EU-wide legally binding target for renewables</li></ul>	0
<ul> <li>2.1. The European Commission and the European Parliament as demandeurs of the EU-wide legally binding target for renewables</li></ul>	0 5 9
<ul> <li>2.1. The European Commission and the European Parliament as demandeurs of the EU-wide legally binding target for renewables</li></ul>	0 5 9 <b>5</b>
2.1. The European Commission and the European Parliament as demandeurs of the EU-wide       20         legally binding target for renewables       20         2.2. Member States obligations towards renewable energies       20         2.3. Germany as a constructive pusher of the renewable energy policy in the EU       20         Chapter 3: Difficulty of Policy Reversal       30         3.1. Path Dependence       30	0 5 9 5 5
2.1. The European Commission and the European Parliament as demandeurs of the EU-wide       20         legally binding target for renewables.       20         2.2. Member States obligations towards renewable energies.       20         2.3. Germany as a constructive pusher of the renewable energy policy in the EU       20         Chapter 3: Difficulty of Policy Reversal       30         3.1. Path Dependence       30         3.1.1. Policy Adjustments to Energy Acquis       30	0 5 9 5 6 7
2.1. The European Commission and the European Parliament as demandeurs of the EU-wide       2         legally binding target for renewables.       2         2.2. Member States obligations towards renewable energies.       2         2.3. Germany as a constructive pusher of the renewable energy policy in the EU       2         Chapter 3: Difficulty of Policy Reversal       3         3.1. Path Dependence       3         3.1.1. Policy Adjustments to Energy Acquis       3         3.1.2. Role of Structural Funds       3	0 5 9 <b>5</b> 6 7 9
2.1. The European Commission and the European Parliament as demandeurs of the EU-wide       20         legally binding target for renewables.       20         2.2. Member States obligations towards renewable energies.       21         2.3. Germany as a constructive pusher of the renewable energy policy in the EU       22 <b>Chapter 3: Difficulty of Policy Reversal</b> 31         3.1. Path Dependence       32         3.1.1. Policy Adjustments to Energy Acquis       32         3.1.2. Role of Structural Funds       32         3.1.3 Sunk Costs.       4	0 5 9 5 6 7 9 1
2.1. The European Commission and the European Parliament as demandeurs of the EU-wide legally binding target for renewables       20         2.2. Member States obligations towards renewable energies       21         2.3. Germany as a constructive pusher of the renewable energy policy in the EU       21 <b>Chapter 3: Difficulty of Policy Reversal</b> 31         3.1. Path Dependence       31         3.1.1. Policy Adjustments to Energy Acquis       31         3.1.2. Role of Structural Funds       31         3.1.3 Sunk Costs       4         3.2. Energy security challenges and public concerns about protection of environment in New Member States       4	0 5 9 5 7 9 1 2
2.1. The European Commission and the European Parliament as demandeurs of the EU-wide legally binding target for renewables.       20         2.2. Member States obligations towards renewable energies.       21         2.3. Germany as a constructive pusher of the renewable energy policy in the EU       21 <b>Chapter 3: Difficulty of Policy Reversal</b> 31         3.1. Path Dependence       31         3.1.1. Policy Adjustments to Energy Acquis       31         3.1.2. Role of Structural Funds       31         3.2. Energy security challenges and public concerns about protection of environment in New Member States       41         Conclusion       41	0 5 9 5 6 7 9 1 1 2 2 5

## Introduction

The recent adoption of the Energy 2020 Strategy, which among other goals involves the achievement of breakthrough targets of 20 per cent of renewable energy share and 20 per cent reduction in the carbon emissions by 2020, is an unprecedented event by its ambition in EU policy-making history. What is surprising about this Strategy is how the Member States did agree on such hardly feasible goal, given the two-level character of policy-making in the EU. The aim of this thesis is to examine this problem by addressing to the selected theories of European integration.

The EU is the largest regional energy market in the world, and European citizens account for almost 20 per cent of the global energy consumption.<sup>1</sup> The energy sector composes approximately 10 per cent of the whole European industry, with a turnover of 885 billion euro.<sup>2</sup> Starting from the initial stage, energy has been one of the main motives of European integration, as demonstrated by the Treaty establishing the European Coal and Steal Community<sup>3</sup> (ECSC) and the Treaty establishing the European Atomic Energy Community<sup>4</sup>. (EURATOM) However, during a long period of EU history, energy has been almost an exclusive competence of the member states. Only after the adoption of the Single European Act on 17 February 1986 the idea of an internal market for energy, where principles of greater competition and higher level of market integration could be realized, did it become a

<sup>&</sup>lt;sup>1</sup>Energy 2020 Report, p. 1.

http://ec.europa.eu/energy/publications/doc/2011\_energy2020\_en.pdf

To see the detailed information on energy production and consumption in the EU, please consult Eurostat Energy - Yearly Statistic 2008

http://epp.eurostat.ec.europa.eu/cache/ITY\_OFFPUB/KS-PC-10-001/EN/KS-PC-10-001-EN.PDF <sup>2</sup> *Eurostat Report,* September 2009

http://epp.eurostat.ec.europa.eu/cache/ITY\_OFFPUB/KS-SF-09-072/EN/KS-SF-09-072-EN.PDF (Accessed on April 30, 2011)

<sup>&</sup>lt;sup>3</sup> Treaty establishing the European Coal and Steal Community and Annexes I-III, Paris, 18 April 1951. Available at: http://eur-lex.europa.eu/en/treaties/index.htm.

<sup>&</sup>lt;sup>4</sup> For the most recent version, see Consolidated Version of the Treaty Establishing the European Atomic Energy Community, OJ C 84/1 of 30 March 2010

permanent trend on the EU agenda.<sup>5</sup> This is reflected in the recent Treaty of Lisbon, in which energy became for the first time in the Union history a shared competence between the EU and its member states.<sup>6</sup> Moreover, the reformed Treaty emphasizes the principle of solidarity between member states in such a way as to ensure the functioning of the energy market, provide for security of energy supply in the Union, promote energy sustainability and develop the interconnection of energy networks.<sup>7</sup> Against this background, the importance of and attention to renewable energy has dramatically increased at European level, to the extent, that the former has recently become one of the major issues on the European environmental, economic and political agenda. The green energy trend in Europe owes its current rise, foremost, to the concerns about global warming and challenges of energy security, which are prompted by the several energy crises with external suppliers and skyrocketing prices on imported hydrocarbons.

The fight against climate change has always been a constituent part of the Community's environmental policy, especially in the light of the Kyoto Protocol, which EU and its Member States ratified in late May 2002.<sup>8</sup> Within the framework of this agreement, the EU (15) committed itself to reduce the common greenhouse emissions by 8 per cent from the 1990 base year during the period between 2008 and 2012.<sup>9</sup> The issue of external energy dependence is by far one of the worst frustrations for the EU as a whole and its Member States in particular, which affect both foreign policy and home affairs (see, for example Youngs 2009). As of 2008, 30 per cent of all gas supplies to the EU came from Russia and 14

**CEU eTD Collection** 

<sup>&</sup>lt;sup>5</sup> The Single European Act

http://ec.europa.eu/economy\_finance/emu\_history/documents/treaties/singleuropeanact.pdf <sup>6</sup> Art 2 C of Treaty of Lisbon (TEU)

http://eur-lex.europa.eu/JOHtml.do?uri=OJ:C:2007:306:SOM:EN:HTML

<sup>&</sup>lt;sup>7</sup>Ibid, Art 176 A of TEU

<sup>&</sup>lt;sup>8</sup>Kyoto Protocol on climate change

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002D0358:EN:NOT

Accessed on April 30, 2011

<sup>&</sup>lt;sup>9</sup> Ibid.

per cent from Northern Africa, while for crude oil supplies, 31 per cent were from the Middle East and 29 per cent from Russia.<sup>10</sup> Moreover, experts forecast that by 2030 the EU's energy import requirements will double, whereas the European resources in the North Sea (the only domestic reserves the EU may rely on) will diminish.<sup>11</sup>

Therefore, the growing dependence on fossil energy resources, as well as the increasing importance of climate change issues, account for increased attention to renewable energy at the EU level. In particular, these issues prompted the Commission to coordinate support to the policies of the member states and to introduce mechanisms of international trade in renewable power in order to accelerate its development. As demonstrated in the adoption of a new Directive 2001/77/EC on Electricity Production from Renewable Energy Sources (*RES Directive*) which, on the one hand, provided a definition to renewable energy, and on the other hand set national indicative targets for the consumption of renewable power.<sup>12</sup> In 2009, the *Renewable Energy Directive* amended and repealed the previous RES and the amended Directive established a common framework for the production and promotion of energy from renewable sources.<sup>13</sup>

The adoption by the European Commission of *Energy 2020 Strategy* on November 10, 2010 was a milestone in the development of renewable energy. The document defines energy priorities for the upcoming decade as well as sets the actions aimed at establishing "competitive, sustainable and secure energy".<sup>14</sup> This incentive reflects the Commission's

<sup>&</sup>lt;sup>10</sup> EU energy production and import

http://epp.eurostat.ec.europa.eu/statistics\_explained/index.php/Energy\_production\_and\_imports#Imports See, *inter alia* Youngs, R.: *'Energy security: Europe's new foreign policy challenge'*, Routledge, 2009, p. 2. <sup>11</sup> Euractiv.com, *'The EU's energy mix: aiming at diversity'*, 31 August 2007, available at

http://www.euractiv.com/en/energy/eu-energy-mix-aiming-diversity/article-163228 <sup>12</sup> Directive 2001/77/EC on Electricity Production from Renewable Energy Sources

available on <u>http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001L0077:EN:NOT</u> <sup>13</sup>Amended Renewable Energy Directive

available on http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:en:PDF <sup>14</sup> Communication "Energy 2020"

 $http://ec.europa.eu/energy/publications/doc/2011\_energy2020\_en.pdf,$ 

<sup>(</sup>Accessed on May 1, 2011)

dissatisfaction with the quality of National Energy Efficiency Action Plans, which have been developed by the Member States since 2008.<sup>15</sup> At the same time, it signifies a defining moment in the development of renewable energy policy in the European Union, as the Strategy sets the legally binding goal to achieve 20 per cent target of green energy share in the EU's final energy consumption by 2020. Furthermore, the fulfillment of other goals indicated in the document –, 20 per cent cut in greenhouse emissions and, 20 per cent improvement in energy efficiency – also serves the purpose of implementation of renewable energy policy aims. Therefore, in the 2020 Strategy, the EU, on the one hand, addressed the challenges of global warming and energy dependence by introducing the "20-20-20 scheme" of interdependent energy and climate targets; on the other hand, it recognized the importance of establishing a coherent renewable energy policy at EU level. However, several questions arise about the feasibility of the current EU 2020 Energy Strategy.

The growing concerns about the feasibility of 20-20-20 targets lead into questioning the 20 per cent target for renewables as an unrealistic goal (see, for example Jones 2007<sup>16</sup>). This target seems even more contradictory against the background of failure to fulfill previously established target of 12 per cent for renewables in the EU by 2010 set in 1997<sup>17</sup>. One of the main burdens for the renewable energy is its higher price in comparison to both hydrocarbons and nuclear power, while affordable price for electricity is essential for the economic growth in the European Union. Therefore, the shift towards green energy may result for the European industries and businesses in higher transaction costs and decreasing level of competitiveness on the world market in the medium-term perspective, which will be aggravated by the global economic crisis. As a result, this may seriously slow down the

<sup>&</sup>lt;sup>15</sup> Ibid., p. 4.

<sup>&</sup>lt;sup>16</sup> Jones, Christopher (2007). 'EU renewables ambitions are unrealistic', *Modern Power Systems, Vol. 27, Issue 8, p.5, ½ p.* 

<sup>&</sup>lt;sup>17</sup> White Paper for Renewable Energy: Targets for Electricity and Transport 1997

Available at http://europa.eu/documents/comm/white\_papers/pdf/com97\_599\_en.pdf

recovery of the European economy, especially given the different levels of development of renewables among the Member States. In witness thereof, former British Secretary of State for Energy and Climate Change Ed Miliband was heavily criticized for setting "unrealistic" 15 per cent green energy target for the UK, as it is not yet clear "whether spending on renewable energy has achieved value for money".<sup>18</sup> This opinion was supported by the group of researchers from Policy Exchange independent think tank, who argued that U.K. should "renegotiate its commitment" to the EU green energy target because of the latter is "unnecessarily expensive and damages the prospects for reducing [U.K.'] carbon emissions".<sup>19</sup>

In the light of two waves of enlargement of 2004 and 2007 respectively, which brought to the EU ten new members with low share of renewables in their energy balance and higher level of external energy dependency<sup>20</sup>. The green energy targets for the new comers seem an extremely difficult and costly to implement goal. Particularly, Poland recently expressed its concerns about the lack of attention to clean coal technologies at the EU level, which are of crucial importance for the country, where most of electricity comes from coal; under the circumstances Poland "needs more time than others" to reach the green goals.<sup>21</sup> The representative<sup>22</sup> of Bulgaria's industry, the poorest EU member state with most energy-

<sup>&</sup>lt;sup>18</sup>30 November, 2010. Margaret Hodge, the Labour MP and chairwoman of Public Account Committee The Telegraph, *Ed Miliband's green energy targets 'unrealistic'*, 30 November 2010, available on

http://www.telegraph.co.uk/earth/environment/8167812/Ed-Milibands-green-energy-targets-unrealistic.html <sup>19</sup> Bloomberg.com, *U.K. Urged to Abolish Renewable Goals, Spend Less to Cut CO2,* 04 May 2011, available on http://www.bloomberg.com/news/2011-05-04/u-k-urged-to-abolish-renewable-goals-spend-less-to-cut-carbon.html

The text of original report is available on

http://www.policyexchange.org.uk/publications/publication.cgi?id=239

<sup>&</sup>lt;sup>20</sup>With the exception of Romania, Latvia, Lithuania, Estonia and Slovenia, which possess large hydropower facilities, the share of renewables in the final energy consumption of the new EU members is below 10 per cent.

http://epp.eurostat.ec.europa.eu/tgm/table.do?tab=table&init=1&plugin=1&language=en&pcode=t2020\_31 <sup>21</sup> Polish Environment Minister Andrzej Kraszewski in an interview to *Euractiv* portal

Euractiv.com, *Poland 'needs more time' to meet EU climate target,* 24 June 2010, available on http://www.euractiv.com/en/priorities/poland-needs-more-time-to-meet-climate-target-news-495566<sup>22</sup> Dimitar Brankov, deputy president and spokesman of the Bulgarian Business Association

intensive economy, called the '20-20-20' targets unrealistic.<sup>23</sup> Given the high cost of alternative energy such as solar and wind power installments, Bulgaria should opt for the development of new nuclear power capacities, which will allow establishing a low-carbon economy but "at the lowest cost to society". However nuclear power is not a renewable source of energy.<sup>24</sup> Furthermore, Slovakia's former government led by Robert Fico went as far as labeling the '2020 Strategy' as "illusionary", pointing to the lack of "comprehensive approach to the implementation of the EU's legislative package on climate and energy at national level".<sup>25</sup>

#### **Research Questions**

Consequently, the present research aims at addressing two empirical puzzles: *what drove the EU member states and institutions to commit to such target*, despite increased member states' resistance following an adverse economic conjecture? *Why did the New Member States not insist on the revision of the target*? In other words, which actors (EU institutions, national governments, environmental NGOs, industries) played a crucial role in its definition, adoption and retention, and what was the impact of the EU institutional and decision-making frameworks on these policy outcomes? These questions will be addressed, in the light of existing analyses of policy-making relevant to renewable energy in the EU (essentially energy policy and environmental policy), and informed by theoretical frameworks relevant to the study of EU integration and governance.

<sup>&</sup>lt;sup>23</sup> Euractiv.com, *Bulgaria debates economic impact of CO2 targets*, 15 July 2010, available on

http://www.euractiv.com/en/priorities/bulgaria-debates-economic-impact-co2-targets-news-495586 <sup>24</sup> lbid.

<sup>&</sup>lt;sup>25</sup>Euractiv.com, Slovakia's new government to set tone of climate policies, 01 July 2010, available on http://www.euractiv.com/en/priorities/slovakia-s-new-government-to-set-the-tone-of-climate-policies-news-495793

#### Thesis outline

This thesis is organized as following: in the first chapter I will present a broad literature review by focusing on existing contribution to the study of renewable energy policy and policy-making in the fields of environment and energy. This will be followed by the introduction of theoretical framework, which consists of the theories of Liberal Intergovernmentalism (LI) and New Historical Institutionalism (NHI). In the second chapter I will apply LI theory in order to explain the formation of 20 per cent target on the EU agenda, by emphasizing Member States interests behind integration process. In the third chapter I will make use of NHI theory and its concept of path dependence aiming to analyze the reasons of difficulties of policy reversal with respect to New Member States. In the final part I will draw some conclusive remarks and will unveil the main findings of this thesis.

### **Chapter 1: Literature Review and Theoretical Framework**

#### 1.1. Literature Review

There is a significant amount of literature devoted to renewable energy policy in the European Union. For example, Volkmar examines the development of European policies towards green energy from the Single European Act to EU Directives and various Papers on renewable energy.<sup>26</sup> One of the classic authors who deal with problems of climate change and green energy policies in Europe is Michael Grubb. In his works he emphasizes the importance of policy towards liberalization of energy market for exploration of renewable energy as electricity source.<sup>27</sup> Hereafter, the author focuses on the long-term change in European climatic policy after Kyoto, in particular what are the main concerns of various stakeholders and how will they influence long-term climate policy.<sup>28</sup> An emerging debate in the European energy discourse is climate change challenge *vis-à-vis* energy growth demand and the role that renewable energy sources can play in combating climate change.<sup>29</sup> Other authors focus on the supportive schemes and mechanisms used by the governments in order to promote renewable

<sup>&</sup>lt;sup>26</sup> See, *inter alia* Volkmar, S. 'Switching to Renewable Power', (Earthscan, 2005), pp.203-217

 <sup>&</sup>lt;sup>27</sup> Grubb, M. and Vigotti, R., (1997), 'Renewable energy strategies for Europe : electricity systems and primary electricity sources', London : *Royal Institute of International Affairs*, Descript xxiv, 231 p. ; 22 cm.; Grubb, M., J. V. Mitchell, et al. (1996).,*The new geopolitics of energy*. London: Riia, 1996

<sup>&</sup>lt;sup>28</sup> Grubb, M., (2005), 'Climate policy options post-2012 : European strategy, technology and adaptation after Kyoto' in: Bert Metz and Mike Hulme (guest eds.) ; London : Earthscan, Grubb, M., *et al.*, (2008), *Delivering a Low-Carbon Electricity System*, Cambridge: Cambridge University Press

<sup>&</sup>lt;sup>29</sup>See, *inter alia* Kaygusuz, K., (2008), 'The Future of Nuclear Power and Renewable Energy Sources in the European Union', *Energy Sources Part B: Economics, Planning & Policy*; Oct. 2008, Vol. 3 Issue 4, pp. 348-361; Dusonchet,L. and Telaretti L., (2010), 'Economic Analysis of Different Supporting Policies for the Production of Electrical Energy by Solar Photovoltaics in Eastern European Union Countries', *Energy Policy; Aug2010, Vol. 38 Issue 8, pp. 4011-20* 

energy sources in the European Union.<sup>30</sup> Renewable energy also occupies an important place in the discourse on transition towards sustainable energy systems.<sup>31</sup>

Alternatively, the discussion about renewables centers on the implementation of green energy policies at the national level. In this context, some scholars analyze how certain member states implement their projects in renewable energy under the circumstances when the European Commission is pursuing a program of ending national subsidies to the energy sector as part of the path towards a single European power market.<sup>32</sup> Study by Mancisidor shed the light on the implementation of the common European renewable energy objectives and programs in member states.<sup>33</sup> A case study about the role of national advocates in promotion and development of renewable energy in Spain is reflected in the research by Ortega and Pérez.<sup>34</sup>

One of the areas of focus on green energy is the impact of political decisions-making on the future share of renewables in the overall national energy production.<sup>35</sup> The growing interest in study of renewable energy present the policy instruments for support and promotion of renewable energy laid down in the EU Directive on Electricity Production from Renewable Energy Sources (RES), such as quotas, tradable certificates and financial system.<sup>36</sup>

<sup>&</sup>lt;sup>30</sup> See, inter alia Zamfir, Andreea (2009), 'Managing Renewable Energy in the European Union', Annals of the University of Oradea: Economic Science Series; Vol. 18 Issue 4, pp. 526-29

<sup>&</sup>lt;sup>31</sup> See, *inter alia* Fouquet, D. *et al.*, 'European renewable energy policy at crossroads-Focus on electricity support mechanisms', *Energy Policy; November 2008 36 (11), pp.4079-4092;* Elliot, D.,(2000), 'Renewable energy and sustainable futures', *Futures, Vol.32, Issues 3-4, Apr.2000, pp.261-74;* 

<sup>&</sup>lt;sup>32</sup> Gordon Edge 'A Harsh Environment: The Non-Fossil Fuel Obligation and the UK Renewables Industry' in: Mallon, K (ed.), *Renewable Energy Policy and Politics A Handbook for Decision-making* 

<sup>&</sup>lt;sup>33</sup> Alegría Mancisidor *et al.*, (2009), 'European Union's renewable energy sources and energy efficiency policy review: The Spanish perspective' in *Renewable and Sustainable Energy Reviews*, 13, pp. 100-114

<sup>&</sup>lt;sup>34</sup> Ortega and Pérez, (2005), 'Spanish Renewable Energy: Successes and Untapped Potential' in: Mallon, K (ed.), *Renewable Energy Policy and Politics A Handbook for Decision-making* 

<sup>&</sup>lt;sup>35</sup> Lund, P.D., 2007. 'The link between political decision-making and energy options: Assessing future role of renewable energy and energy efficiency in Finland', in Energy 32(2007) pp. 2271-2281

<sup>&</sup>lt;sup>36</sup> See, *inter alia* Haas *et al.*, (2004), 'How to promote renewable energy systems successfully and effectively', *Energy Policy* 32, pp. 833-39; Midttun and Gautesen, (2007). 'Feed in or certificates, competition or complementarily? Combining a static efficiency and a dynamic innovation perspective on the greening of the energy industry', *Energy Policy*, 35, pp. 1419-22

However, among the topics that received less or few attention on behalf of scholars is green energy policy-making. Several factors account for this: first of all, renewable energy policy in the EU is a relatively new branch of study. Secondly, within the EU institutional structure there is no single Directorate-General (or DG) responsible for renewable energy. For that reason, apart for DG Energy, renewable energy policy also falls within the scope of DG Environment, DG for Climate Action and DG Competition. Taking this into account, policy-making in renewable energy is a constituent part of both broader energy policy-making and environmental policy-making. Therefore, making use of the relevant literature on policy-making in energy and environment fields may be useful and, to the certain extent, necessary in order to identify the most suitable theoretical explanations for our puzzles in relation to Energy 2020 targets.

The development of environmental policy in the EU can be characterized by a gradual 'deepening in institutional terms', on the one hand, and a widening in respective responsibilities, on the other hand.<sup>37</sup>

In this context, Zito's study of environmental policy in the EU is concentrated on the 'task expansion' on the environmental agenda. For this purpose, he explores several theories of European integration: neofunctionalism, intergovernmentalism, 'new' institutionalism (NI) and others in order to find out how well they explain 'the scope and level of policy outputs'.<sup>38</sup> Neofunctionalism' interpretation of task expansion implies that EU institutions and major actors representing society and/or industry take hold of opportunities to promote common environmental policies.<sup>39</sup> However, its explanatory power is limited to general explanation of the founding period of European Community from 1957-1972 and suffers from taking for

<sup>&</sup>lt;sup>37</sup> Lenschow, Andrea, (2010), 'Environmental Policy. Contending Dynamics of Policy Change' in: Wallace *et al.* (ed.) *Policy-Making in the European Union*, Oxford: Oxford University Press, 2010, pp.307-331.

<sup>&</sup>lt;sup>38</sup> Zito, Anthony, (2002), 'Task Expansion: A Theoretical Overview' in Andrew Jordan (ed.) '*Environmental Policy in the European Union'*, London:Earthscan (2002), pp.159-79.

<sup>&</sup>lt;sup>39</sup> Ibid.,pp.160-61.

granted the 'naturalness of outcomes', whereas the reality is more complex.<sup>40</sup> Intergovernmentalist theory, in turn, stresses the role of national governments and their preferences in defining the trajectory of integration on specific areas.<sup>41</sup> In this regard, task expansion takes place due to the Member States share understanding that co-operative environmental policies are mutually advantageous, and they reflect domestic environmental concerns.<sup>42</sup>

According to 'new' institutionalism approach, the EU policy outcomes are subject to the activities of independent EU institutional structures, which shape the context for acting and making choices.<sup>43</sup> Within the framework of 'new' institutionalism, the EU environmental task expansion is explained by the wish on behalf of the actors in the Commission, European Parliament and other institutions to "fulfill their mandate" and gain even greater role for them through increasing quantitative aspect of environmental regulation.<sup>44</sup> Furthermore, in parallel to creating EU treaties, Member States delegate some of their competencies to the European Commission, thus empowering it with certain regulatory functions, such as environmental protection, which is more efficient and functional at EU level than at national.<sup>45</sup> Despite the insights the 'new' institutionalism provides for understanding of the EU political system it is not able to fully explain EU task expansion, as its focus lies on the formal institutions, while ignoring equally significant informal networks.<sup>46</sup> Nevertheless, as Zito suggests the NI provides the strongest explanatory power during the period of institutional stability.<sup>47</sup>

45 Ibid.

<sup>40</sup> Ibid.

<sup>&</sup>lt;sup>41</sup> Ibid.,pp.161-62.

<sup>42</sup> Ibid.

<sup>&</sup>lt;sup>43</sup> Ibid.,p.162.

<sup>&</sup>lt;sup>44</sup> Ibid., p.163. Data is borrowed by the author from *Judge*, *1993*.

<sup>&</sup>lt;sup>46</sup> Zito, Anthony, (2002), 'Task Expansion: A Theoretical Overview' in Andrew Jordan (ed.) '*Environmental Policy in the European Union'*, London: Earthscan (2002), p163.

<sup>&</sup>lt;sup>47</sup> Ibid., p.175.

The development of EU environmental policy is analyzed in the work by one of the leading experts in this field - Andrew Jordan. Among other issues, he examines the factors which affect speed of decision-making process behind the development of the 'environmental *acquis*<sup>2,48</sup> Thus, in order to explain the pace of decision-making process, he addresses to the theories of European integration: intergovernmentalism (Moravcsik 1993, 1998), pluralism (Sandholtz 1993, 1996) and Scharpf's concept of joint decision trap (1998).<sup>49</sup>

Intergovernmentalism' main assumption consists in that supranational actors almost do not have any autonomy in decision-making, and whose primary task is contained in reducing transaction costs and improving the efficiency of interstate negotiations.<sup>50</sup> The greater the difference between the member states' preferences, in turn, the longer it will take to reach consensus, and in the case of dissatisfaction with future policy outcome, the member states may slow down policy adoption.<sup>51</sup> Pluralist theory - part of the broader neofunctionalism - introduces the 'notion of political spillover', suggests that integration into the EU affects the behavior of member states in a manner that they have to 'readjust their preferences by "learning" how to work together', and thus to set apart national differences.<sup>52</sup> Finally, Scharpf's concept of joint decision trap, within the framework of new institutionalism theory, provides the most powerful interpretation of intergovernmentalist logic of European integration.<sup>53</sup> According to this postulate, decision-making is spread between different levels, so the policy outcome will depend on 'what the least willing participant will accept', which results in the unlikelihood of rapid policy change.<sup>54</sup>

**CEU eTD Collection** 

<sup>&</sup>lt;sup>48</sup> Jordan, Andrew *et al.*, (1999), 'Innovative and responsive? A longitudinal analysis of the speed of EU environmental policy-making, 1967-97'. Journal of European Public Policy 6:3 September 1999, pp. 376-98. <sup>49</sup> Ibid., pp.388-92.

<sup>&</sup>lt;sup>50</sup> Ibid., p. 389.

<sup>&</sup>lt;sup>51</sup> Ibid., pp.389-90.

<sup>&</sup>lt;sup>52</sup> Ibid., p. 390.

<sup>&</sup>lt;sup>53</sup> Ibid., p.391.

<sup>&</sup>lt;sup>54</sup> Ibid.

In more detail, intergovernmentalist approach is illustrated in the research by Liefferink on the strategies that 'green' Member States use to influence EU environmental policy-making.<sup>55</sup> Given the two-level character of policy-making in the EU, drafting of policies in Brussels, to certain extent, is being determined by the input from the Member States, whereas policy outcomes in turn impact on domestic policies.

Liefferink highlights the so-called *forerunner* Member States, which are in the vanguard or even ahead of EU environmental policy, i.e. their domestic protection policies are more advanced than those of EU.<sup>56</sup> A forerunner state can act either as *pusher-by-example*, when it attempts to influence EU environmental policy unilaterally by introducing individually a certain environmental measure, or as *constructive pusher*. The latter implies that Members State push European environmental policy directly by negotiating and entering into alliances with other member states and actors from EU organizations, such as Commission's experts, thus seeking to reach a compromise at EU level.<sup>57</sup> The authors argue that alliance-building between environmental policy.<sup>58</sup> However, the weak place of intergovernmentalism consists of detraction the role of actors, especially non-state ones, in identifying problematic fields and shaping agenda.<sup>59</sup>

After the adoption of *Energy Policy for Europe*<sup>60</sup> in late November 2007, the European Commission was entrusted with a large number of key functions: from initiating meetings on energy strategies to preparing documents for national policies. The question of why did national governments decide to delegate a number of their crucial responsibilities to

<sup>&</sup>lt;sup>55</sup> Liefferink, D. and Andersen, M. (1998).'Strategies of the 'green' member states in EU environmental policymaking', *Journal of European Public Policy 5:2, June 1998, pp.254-70* 

<sup>&</sup>lt;sup>56</sup> Ibid., p.256.

<sup>&</sup>lt;sup>57</sup> Ibid, pp.256-57, 258-60.

<sup>&</sup>lt;sup>58</sup> Ibid.,pp.254-63

<sup>&</sup>lt;sup>59</sup> Ibid.

<sup>&</sup>lt;sup>60</sup>An Energy Policy for Europe, available on

http://ec.europa.eu/energy/energy\_policy/doc/01\_energy\_policy\_for\_europe\_en.pdf

the Commission is examined by Mayer.<sup>61</sup> In order to solve this puzzle he evaluates the theories of Liberal Intergovernmentalism (LI) and Historical New Institutionalism (HNI). In particular, Mayer argues that in accordance with LI the decision to empower the Commission can be understood as an attempt by the heads of member states to meet the domestic preferences and to address external challenges such as energy security avoiding costly negotiations on future outcomes.<sup>62</sup> The LI' explanatory power, however, is limited to the most significant results of European integration, while HI is better suited to explain the temporary and 'informal dynamics'.<sup>63</sup> Along the HI' line of reasoning, the Commission has expanded its initially 'vague and modest' power in energy policy-making to an extent not anticipated by the member states.<sup>64</sup> Through the combination of informal rules and various practices, i.e. 'informal agenda-setting', the Commission has set the scene for formal duties.<sup>65</sup>

A brief overview of the relevant literature on policy-making in environmental and energy fields leads us to conclude that theories of European integration can be regarded as valid theoretical paradigm for explanation of policy design in the area of renewable energy in the EU.

#### **1.2. Theoretical framework**

The first theoretical suggestion, Liberal Intergovernmentalism, focuses on the member state interests and preferences as main determinants of European politics (Moravcsik 1998). The second one, Historical New Institutionalism (HNI), brings in the potentially useful concept of "*path dependence*" (Pierson 1998, 2004). According to the latter, institutions

<sup>&</sup>lt;sup>61</sup> Mayer, S., (2008), 'Path Dependence and Commission activism in the evolution of the European Union's external energy policy'; *Journal of International Relations and Development (2008), 11, pp.251-278.* 

<sup>&</sup>lt;sup>62</sup> Ibid., pp. 251-2.

<sup>&</sup>lt;sup>63</sup> Ibid., p.253

<sup>&</sup>lt;sup>64</sup> Ibid.

<sup>&</sup>lt;sup>65</sup> Ibid., pp.253-60

generate self-reinforcing processes that burdens the prospective revision with high transaction cost, and thus making it very unattractive.<sup>66</sup>

Liberal intergovernmentalism is a multistage system that seeks to join together multiple theories and factors in a single consistent method that can explain the trajectory of integration over time.<sup>67</sup> LI relies on two basic assumptions in politics: states are actors, who achieve their goals through intergovernmental bargaining and negotiations; and states are rational which implies that they calculate the opportunity cost of action and choose the one that brings the biggest utility under the circumstances.<sup>68</sup> The establishment of international institutions in this context is to be explained as a combination of interconnected rational state choices and intergovernmental bargaining. The decision-making process follows the three-stage framework and each of them is explained by a different theory (two-level game). Firstly, the governments define national preferences (independent national objectives), then begins the next stage of interstate negotiations, during which states formulate those preferences that can be more easily achieved on a common basis.<sup>69</sup> Finally, they choose whether or not to delegate sovereignty to international institutions that secure the agreements achieved against future uncertainty.<sup>70</sup>

Moravcsik argues that these are the particular economic interests that are behind the preferences of national governments in relation to European integration, rather than security concerns or European ideals.<sup>71</sup> A bargaining theory of international cooperation is employed to explain the outcomes of international negotiations between states with different national

<sup>&</sup>lt;sup>66</sup> Pierson, P.: '*Politics in Time*' (2004), Princeton: Princeton University Press, p. 35.

<sup>&</sup>lt;sup>67</sup> Moravcsik, A. and. Schimmelfennig, F. (2009), 'Liberal Intergovernmentalism', in A. Wiener and T.Diez (eds.), *European Integration Theory*, (Oxford: Oxford University Press), p.68.

<sup>68</sup> Ibid.

<sup>&</sup>lt;sup>69</sup> Moravcsik, A.: (1998), 'The Choice for Europe. Social Purpose and State Power From Messina to Maastricht', Ithaca, NY: Cornell University Press, pp. 20-21.

<sup>&</sup>lt;sup>70</sup> Ibid.

<sup>&</sup>lt;sup>71</sup> Moravcsik, A. and. Schimmelfennig, F: (2009), 'Liberal Intergovernmentalism', in: A. Wiener and T.Diez (eds.), *European Integration Theory*, (Oxford: Oxford University Press), p.70.

preferences. It emphasizes an asymmetrical interdependence, which implies that those actors who are more and better aware about other actors' preferences and workings of institutions can take an advantage due to their awareness and 'manipulate the outcome to their advantage'.<sup>72</sup> The institutions, in turn, enable achieving a better collective outcome, as they reduce the operating costs of further international negotiations by informing states about each other's future preferences and behaviour.<sup>73</sup> LI analysis of the European energy policy in renewables must be therefore concentrated on national demands as well as subsequent international energy negotiations and in this relation take into account the preferences of major governments.<sup>74</sup>

Historical new institutionalism (HNI) is one of the leading theoretical frameworks for explaining the persistence in institutions (see, for example Alexander 2001). HNI highlights the evolutionary nature of rules and policies that may both restrict member state options and open channels for supranational activity.<sup>75</sup> HNI focuses on the gaps that derive from Member States' constraint in control over the evolution of European institutions. The major factors that stipulate emergence of the gaps are autonomous actions of European organizations, the restricted time horizons of decision-makers, the huge potential for unanticipated consequences and the high degree of possibility of changes in governmental preferences over time.<sup>76</sup>

In this regard, crucial for our research is the concept of "*path dependence*" that emphasizes institutions' power to give rise to self-reinforcing processes that make

<sup>&</sup>lt;sup>72</sup> Moravcsik, A. and. Schimmelfennig, F: (2009), 'Liberal Intergovernmentalism', in: A. Wiener and T.Diez (eds.), *European Integration Theory*, (Oxford: Oxford University Press), p. 71.

<sup>&</sup>lt;sup>73</sup> Ibid., p.72

<sup>&</sup>lt;sup>74</sup> Mayer, S.: 'Path dependency and Commission activism in the evolution of the European Union's external energy policy' in: *Journal of International Relations and Development* (2008), 11, pp.251-254

<sup>&</sup>lt;sup>75</sup> Pierson, P. 'A Historical Institutionalist Analysis', in: Wayne Sandholtz and Alec Stone Sweet (eds.), *European Integration and Supranational Governance, Oxford: Oxford University Press*, 1998, pp.48-50.

<sup>&</sup>lt;sup>76</sup> Ibid., pp. 37-38

countermoves undesirable and unattractive in the length of time.<sup>77</sup> Path dependence may occur in policy development, since the latter can also form crucial systems of rules, incentives, and constraints.<sup>78</sup> Due to complex social interdependence, new institutions and policies will often generate 'high fixed costs', 'learning and coordination effects', and 'adaptive expectations', which will 'push individual behaviour onto paths that are difficult to reverse'.<sup>79</sup> At the time of its creation, the design of an institutions may develop an impetus that enables them to influence the behavior of the members.<sup>80</sup> Within the framework of the EU, the 'sunk-costs' of past institutional and policy decisions may seriously affect a national government's capacity for maneuvering by creating an 'exit threat'.<sup>81</sup> Under the circumstances, new governments in Member States may find themselves under restrictions of 'institutional stickiness', when previous institutional and policy decisions at EU level hamper their ability to move off an established path.<sup>82</sup>

#### Hypotheses

Basing on theories of LI and NHI with its concept of path dependence, I advance the following hypotheses:

• Initially, 20 per cent target for renewables adopted in 2020 Strategy reflected

preferences and domestic interests of certain Member State(s) (who would more benefit from

<sup>&</sup>lt;sup>77</sup>Pierson, P.: '*Politics in Time'* (2004), Princeton: Princeton University Press, p.35.

<sup>&</sup>lt;sup>78</sup> Pierson, P. (1993). 'When Effect becomes Cause: Policy Feedback and Political Change' in *World Politics*, 45, pp. 595-628

<sup>&</sup>lt;sup>79</sup> Pierson, P., 'A Historical Institutionalist Analysis', in Wayne Sandholtz and Alec Stone Sweet (eds.), *European Integration and Supranational Governance, Oxford: Oxford University Press*, (1998); 'Politics *in Time*' (2004), Princeton: Princeton University Press, p. 35.

<sup>&</sup>lt;sup>80</sup> Mayer, S.: 'Path dependency and Commission activism in the evolution of the European Union's external energy policy' in *Journal of International Relations and Development* (2008), 11, p. 259.

<sup>&</sup>lt;sup>81</sup> Moravcsik, A.: (1998), 'The Choice for Europe. Social Purpose and State Power From Messina to Maastricht', Ithaca, NY: Cornell University Press, p. 46.

<sup>&</sup>lt;sup>82</sup> Pierson, P. 1998; 2004

its implementation), which they expressed during interstate negotiations and managed to include in 2020' agenda during interstate bargaining.

• Despite the questionable feasibility of 20/20/20 targets in the light of two waves of Eastern enlargement, national governments found them bound by the sunk-cost (high transaction costs and domestic situation) and institutional stickiness of past policy decisions at EU level in relation to 2020 Strategy goals, which hampered their ability to reverse and somehow revise the Strategy goals

#### **Research Method**

For the purpose of testing hypotheses of this thesis, I will employ the method of qualitative content analysis. This method tries to preserve some strengths of quantitative content analysis but widen it to qualitative procedure (Mayring, 2001).<sup>83</sup> Qualitative content analysis allows a combination of quantitative content analysis approach for systematic analysis of large amounts of textual material with qualitative-oriented procedure of data interpretation. As compared to the quantitative analysis, the use of qualitative analysis provides a larger room for maneuvering with text interpretation.

The first hypothesis involved examining government communications, protocols, resolutions and papers from the European Commission, the European Council, and the European Parliament, as well as the reports produced by expert groups and contributions by Member States which marked the coming into being of 2020 Energy, but also the development of those relevant legislative instruments on renewable energy and environment that preceded the appearance of the Strategy. Turning to the second hypothesis of the thesis, I

<sup>&</sup>lt;sup>83</sup> Mayring, Philipp (2000). Qualitative Content Analysis [28 paragraphs]. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research, 1(2), Art. 20, http://nbn-resolving.de/urn:nbn:de:0114-fqs0002204.

will examine energy and environmental chapters of the EU *acquis* and national energy policy adopted in fulfillment of accession requirements as well as will focus on the environmental concerns and energy security challenges.

The primary documentary data with respect to the EU institutions will be obtained from the official web-sites of the European Commission, European Council, and European Parliament, which can also be found in the EU legal database *Eur-Lex (and Pre-lex)*. As for the information on the Member States energy policies, it will be examining on the basis of the information provided at the web-sites of these institutions' relevant Ministries and/or Agencies. The interviews and press analysis will be obtained from the official web-sites of 'BBC News', 'The Times', 'Bloomberg', 'Financial Time', 'Guardian', 'Reuters', and from the EU information web-site 'EurActive', as well as from other mass-media sources. For the statistic and survey data, I will use the International Energy Agency electronic archive and Eurobarometer surveys.

For secondary source material, I will rely on the various articles and reviews on renewable energy, environmental and energy policies in the EU that were published in *Journal of European Public Policy; Journal of Renewable Energy Law and Policy; Energy Policy Journal; Journal of International Relations and Development* and others academic and scientific journals.

# Chapter 2: Explaining the Origin of 2020 Target for Renewable Energy on the EU Agenda

In the previous chapter I have examined theories of liberal intergovernmentalism and new historical institutionalism with their concept of path dependence as possible explanations for the paradox that I address in the present thesis. This chapter aims to verify the reliability of our first hypothesis, namely, whether 20 per cent target for renewables, laid down in the Energy 2020, is a reflection of preferences and domestic interests of the EU Member States. In other words, can we explain the formation of 2020' goals for green energy through the prism of the liberal intergovernmentalism' perspective? Being this the case, the idea of 20 per cent energy from renewable sources has been brought on the EU agenda by the 'major' Member States (the implementation of which would serve their preferences and/or domestic interests) during intergovernmental energy and environmental negotiations. Therefore, we should focus, in our analysis of the origin of green energy target, on the relevant Council meetings and summits, which preceded the adoption of the Energy 2020 Strategy, as well as on the Member States' policies and domestic situation with regard to renewable energy.

# **2.1.** The European Commission and the European Parliament as *demandeurs* of the EU-wide legally binding target for renewables

The idea of the European strategy towards green energy has been proposed for the first time in 1996, when the EC presented its Green Paper entitled "Energy for the future: renewable sources of energy"<sup>84</sup> based on the conclusions of the earlier report entitled "European Energy to 2020"<sup>85</sup>. The Commission argued that without an increase in the share of renewables in the EU's overall energy mix, the Union would not be able to comply with its international commitments of protecting the environment, and this would also have a negative

<sup>&</sup>lt;sup>84</sup> Green Paper – '*Energy for the future : renewable sources of energy*', available at

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:1996:0576:FIN:EN:PDF

<sup>&</sup>lt;sup>85</sup> http://ec.europa.eu/energy/library/e2020fd.pdf

effect on the security of the energy supply.<sup>86</sup> For this reason, the Commission urged to set out the EU-wide renewable energy objectives (at the moment indicative), in order to boost the development of green energies. This incentive was reflected in the EU "Directive on the promotion of electricity produced from renewable energy sources"<sup>87</sup> (RES) adopted by the European Parliament and the Council in late September, 2001.

The momentum for revising RES policy in the EU context was European Conference for Renewable Energy held on 19-24 January 2004 in Berlin. The main purpose of this conference was the examination of existing polices at both national and EU levels, aimed at increasing the share of renewable energies, and the discussion of the role it could play in the greenhouse reduction, as well as in the increase of the security of energy supply.<sup>88</sup> One of the key recommendations to the EU Institutions outlined during the conference was to substantially and urgently increase the share of RES in the global European energy consumption, so as to efficiently tackle the growing challenges of climate change and to substantially improve the security of energy supply in Europe.<sup>89</sup> As a feasible remedy the EU proposed to set some new ambitious integrated targets in order to reach at least 20 per cent of gross inland energy consumption from RES by 2020.<sup>90</sup> This would allow the EU to remain as the main actor and the driving force behind the development of renewable energy markets; while at the same time, to reduce carbon emissions by 20 per cent.

In accordance with the recommendations presented during the conference in Berlin, the EP adopted its resolution on 'International Conference for Renewable Energy in Bonn in June 2004'. In the latter, it urged the Commission, the Council and the Member States to

<sup>&</sup>lt;sup>86</sup> http://ec.europa.eu/energy/library/e2020fd.pdf.,p.3.

<sup>&</sup>lt;sup>87</sup> DIRECTIVE 2001/77/EC, available at http://eur-

lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2001:283:0033:0033:EN:PDF

<sup>&</sup>lt;sup>88</sup> European Conference for Renewable Energy – 'Intelligent Policy Options', Berlin 19-21 January 2004 Summary of recommendations is available at

http://ec.europa.eu/environment/jrec/pdf/jrec\_info\_berlin\_conclusions\_final.pdf

<sup>&</sup>lt;sup>89</sup> Ibid.,p.2.

<sup>&</sup>lt;sup>90</sup> Ibid.,pp.2-3.

hasten of setting 'ambitious, timetable targets' for increasing the share of renewable energies in final energy consumption; these measures also supposed to help the EU to meet the Kyoto targets faster.<sup>91</sup> In concrete terms, this meant that the EU as a whole must reach the target of 20 per cent energy from renewable sources in the overall energy mix by 2020.

Furthermore, these requests were reinforced in the subsequent resolution of the EP on 'the share of renewable energy in the EU and proposals for concrete actions' on 29 September, 2005.<sup>92</sup> The resolution recognized the unprecedented and impressive growth of renewable energy industry in Europe as a result of the efforts on the part of some Member States. It is against this background that the European Parliament once again stressed the importance of setting a legally binding 20 per cent target for renewables in the EU's final energy consumption by 2020.

In March 2006, the European Commission presented the Green Paper – A European Strategy for Sustainable, Competitive and Secure Energy.<sup>93</sup> In the Strategy, the Commission criticized the idea of reliving largely or entirely on natural gas for power generation by any Member State, as it would increase the energy security threat to other members in the case of possible shortages.<sup>94</sup> Taking this issue, but also the one of the climate change into the account, the Commission offered the Strategic EU Energy Review, which would address these challenges and prepare for the objective debate on the future EU energy policy. In relation to climate change and energy security, the EC proposed an 'integrated approach', which combined energy efficiency programs with competitive and efficient renewable energy.<sup>95</sup>

<sup>&</sup>lt;sup>91</sup> European Parliament resolution on the International Conference for Renewable Energies, 1 April 2004 Available at http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P5-TA-2004-0276&language=EN

 <sup>&</sup>lt;sup>92</sup> European Parliament Resolution 2004/2153(INI), 29 September 2005, in Official Journal of the European Union, 21.9.2006, available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2006:227E:0599:0608:EN:PDF
 <sup>93</sup> A European Strategy for Sustainable, Competitive and Secure Energy,

available on http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52006DC0105:EN:NOT <sup>94</sup> lbid.,p.9.

<sup>&</sup>lt;sup>95</sup> Ibid,.p.10.

Finally, the Green Paper recognized necessity of supportive policy framework for renewable energy in order to fully realize its future potential. For this purpose, it prioritized a creation of a *Renewable Energy Road Map* which would be based on the 'thorough impact assessments' and would define which targets and objectives for renewable energy beyond 2010 are essential. The Road Map would provide a long-term certainty for both investors and industry.<sup>96</sup> The Commission's Green Paper – 'A European Strategy for Sustainable, Competitive and Secure Energy' *sui generis* opened the debate on the further development of the green energy policy in the EU and the possibility of setting a legally binding target for the share of renewables in the final consumption. At the same time, the target for renewable energies has initially been regarded in the context of interconnection with the problems of climate change and energy security.

Commission's incentives stated in the Green Paper with regard to renewable energy were largely welcomed by the European Council and the European Parliament.

Consequently, as response to the Strategy proposed by the Commission, the European Council presented its Presidency Conclusions in late March, 2006. Among others issues, it called for EU leadership on renewable energies and asked the Commission to produce an *Energy Policy for Europe* that aimed to establish efficient and coherent Community policy targeting three major objectives: increasing security of supply, ensuring competitiveness and promoting environmental sustainability.<sup>97</sup> The European Council supported the development of a road map for renewables in a cost efficient manner, which would involve the revision of the existing targets (as of 2010) in favor of raising the share of energy from renewable sources to 15 per cent by 2015.<sup>98</sup>

 <sup>&</sup>lt;sup>96</sup> A European Strategy for Sustainable, Competitive and Secure Energy, pp. 11- 12, 19.
 available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52006DC0105:EN:NOT
 <sup>97</sup> European Council' Document 7775/1/06 REV 10, 22/23 March, 2006, pp.13-15.

Available at http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/ec/89013.pdf <sup>98</sup> lbid., p.15.

The European Parliament, in its resolution on Commission's Green paper, stressed the importance to acknowledge challenges of changing global energy market and need for a dialogue with major energy operators in the EU with respect to the further development of the consensus in energy policy.<sup>99</sup> Thus, during the debate, a stage *rapporteur* from Committee on Industry, Research and Energy of the Parliament, Eluned Morgan, presented a report on the prospects in development of renewable energy in the EU, in which she stated:

"Energy mix is up to Member States, but let us be sensible and acknowledge that the energy mix in one country will affect others, and that is why we need targets on cutting CO2 emissions by 30% by 2020. We are insistent on binding sectoral targets of 25% in renewable energies. That means no less than a revolution in the way that many Member States produce their energy".<sup>100</sup>

Following the result of almost unanimous voting, the European Parliament adopted a resolution, in which it proposed to the Commission to set for the 2007 Spring European Council the mandatory 'sectoral targets' for renewable energy with final aim to achieve 25 per cent of energy from renewable sources by 2020 as well as to draft a road map for reaching a future goal of 50 per cent for green energy by 2040.<sup>101</sup>

Taking into account the remarks and feedbacks on behalf of the European Council and European Parliament, the Commission presented in early January 2007 a *Renewable Energy Road Map*, a constituent part of broader *Strategic European Energy Review*, in which it assigned a long-term vision of development of renewable energies in the European Union.<sup>102</sup> Furthermore, it recognized the unlikelihood of reaching a target of 12 per cent by 2010, which

0603&language=EN#def 1 13

<sup>&</sup>lt;sup>99</sup> European Parliament Resolution INI/2006/2113, 14 December 2006,

available at http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P6-TA-2006-

<sup>&</sup>lt;sup>100</sup>The full text of Eluned Morgan report is available at:

http://www.europarl.europa.eu/sides/getDoc.do?type=CRE&reference=20061214&secondRef=ITEM-003&language=EN&ring=A6-2006-0426

<sup>&</sup>lt;sup>101</sup> European Parliament Resolution INI/2006/2113, 14 December 2006,

available at http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P6-TA-2006-0603&language=EN#def\_1\_13

 <sup>&</sup>lt;sup>102</sup> Renewable Energy Road Map. 'Renewable energies in the 21st century: building a more sustainable future',
 10 January 2007, p.3,

available at http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0848:FIN:EN:PDF

was established earlier in 1997 (please see the White Paper for Renewable Energy)<sup>103</sup> due to the insufficient input from the Member States.<sup>104</sup> The 12 per cent goal for renewables has proven to be inadequate for the full-scale development of renewable energy sector.<sup>105</sup> Thereby, given this and the requests from the EU Council and the Parliament, a new overall legally binding EU target of "20 per cent of renewable energy sources in gross inland consumption by 2020" was recognized desirable and in line "with the level of ambitions" at the EU level.<sup>106</sup> In order to increase feasibility of the green target, its achievement was tied together with reduction of greenhouse emissions and strengthening security of energy supply.<sup>107</sup>

The provisions of the renewables road map were reflected in the final Energy Policy for Europe (EPE), in which the EC urged the European Council and the EU Parliament for endorsing a compulsory goal of reaching 20 per cent level for renewable energies in the EU's overall mix by 2020, and asked to set out the National Action Plans for the Member States in order to fulfill the target at national level.<sup>108</sup> Therefore, the idea of 20 per cent target for renewable energy sources by 2020 have evolved through various stages of debates and consultations within the institutional framework of the EU from initially indicative into legally binding on the 2007 Spring European Council.

#### 2.2. Member States obligations towards renewable energies

Liberal intergovernmentalism theory stresses the economic preferences of Member States as an impetus of policy integration. During the interstate bargaining they translate their better awareness of specific policy subject into institutional outcomes that better fit their

<sup>&</sup>lt;sup>103</sup> White Paper for Renewable Energy: Targets for Electricity and Transport 1997

Available at http://europa.eu/documents/comm/white\_papers/pdf/com97\_599\_en.pdf

<sup>&</sup>lt;sup>104</sup> Renewable Energy Road Map, p.8.

<sup>&</sup>lt;sup>105</sup> Ibid., p.10.

<sup>&</sup>lt;sup>106</sup>Ibid.

<sup>&</sup>lt;sup>107</sup> Ibid., p.14.

<sup>&</sup>lt;sup>108</sup> Energy Policy for Europe, 10 January, 2007, p.14, 22.

Available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2007:0001:FIN:EN:PDF

domestic interests. Following this theoretical assumption, one may reasonable argue that legal incorporation of a 20 per cent target for share of alternative energies into the EU's official agenda is neither more nor less than a reflection of Member States' domestic economic, social and/or environmental preferences. Bearing this idea in mind, we will examine attitudes towards renewable energy within selected EU countries.

Denmark is currently one of the leaders in both renewable energy and environmental Since the oil crises of the 1970s, Denmark has launched a successive policy in the EU. policy targeted at dramatically reducing its dependence on imported hydrocarbons. As a constituent part of this programme, a large-scale promotion of various renewable energy sources use has started. This involved expansion of the domestic electricity-transmission network to neighboring countries as well as significant direct governmental investment subsidies to wind turbines buyers.<sup>109</sup> Such measures have proven to be extremely efficient to the extent that the share of renewable energy in total energy consumption has increased since 1980s to over 18 per cent in 2007.<sup>110</sup> Furthermore, governmental incentives facilitated the emergence of one of the strongest and most successful wind energy industries in the world. Exports of Danish renewable energy technologies have tripled since 1980s and today 'Vestas Wind Systems', the largest manufacturer of wind turbines in the world<sup>111</sup>, and other companies allow Denmark to be one of the main suppliers of wind turbines and turbine components, accounting for a significant share of Danish export.<sup>112</sup> Denmark, in line with the success story of its renewables industry and growing social demand for an increased attention to renewable energy solutions, committed itself to achieve100 per cent energy independence

<sup>&</sup>lt;sup>109</sup>Danish Energy Policy 1970-2010, Danish Energy Policy, available at http://www.ens.dk/en-

US/Info/news/Factsheet/Documents/DKEpol.pdf%20engelsk%20til%20web.pdf; seealso Nielsen, H. Krisitian (2005), 'Danish Wind Power Policies from 1976 to 2004: A Survey of Policy Making and Techno-economic Innovation' in Lauber, Volkmar (ed.) *Switching to Renewable Power*, London: Earthscan, 2005, pp.99-121 <sup>110</sup>Danish Energy Policy 1970-2010, p.3

<sup>&</sup>lt;sup>111</sup>According to Reuters.com, Vestas kept No 1, spot in wind market, 17 March 2010, available at http://uk.reuters.com/article/2010/03/17/idUKLDE62G1JN20100317

<sup>&</sup>lt;sup>112</sup>Danish Energy Policy 1970-2010, p.4

from fossil fuels and to achieve 30 per cent renewable energies in total consumption by 2020.<sup>113</sup>

The United Kingdom has one of the lowest levels<sup>114</sup> of renewable energy sources in its energy balance among EU countries due to reliance on nuclear power and oil and gas reserves in the North Sea. Nevertheless, it did support the adoption of the legally binding 20 per cent for share of renewables by 2020 for the EU on the Brussels' Summit in 2007. Unlike Scandinavian countries, where both a developed clean energy industry and strong domestic support for renewable energy were the drivers of renewable energy policy, in the case of the UK, the main motivator was Prime Minister Tony Blair and his government, who advocated for the development of alternative energy sources as a pre-requisite for a low-carbon future. Climate issue became of crucial importance for Blair, thus in 2002 he made a statement that the world needed to go beyond the Kyoto Protocol because it is "not radical enough", but rather a concrete plan of action is required.<sup>115</sup> On April the same year a 'Renewables Obligation' (RO) support scheme for renewable energy suppliers to increase the proportion of electricity coming from renewable energy sources.<sup>116</sup> Following the introduction of the RO policy, the share of renewables has tripled in the UK.<sup>117</sup>

British Prime Minister, addressing the European Council in 2003, proposed the adoption of targeted 60 per cent reduction of greenhouse emissions for the EU.<sup>118</sup> Soon

http://news.bbc.co.uk/2/hi/uk\_news/politics/2228741.stm

<sup>&</sup>lt;sup>113</sup>Danish Energy Policy 1970-2010, p.5.

<sup>&</sup>lt;sup>114</sup>As of 2009 share of renewable energy in electricity generation was 6.7%, Department of Energy and Climate Change: Digest of United Kingdom energy statistics (DUKES)", available at

http://www.decc.gov.uk/assets/decc/Statistics/publications/dukes/313-dukes-2010-ch7.pdf <sup>115</sup>BBC News, *Blair issues global warming challenge*, 1 September 2002, available at

<sup>&</sup>lt;sup>116</sup>Renewables Obligation, The UK'Department of Energy and Climate Change, http://www.decc.gov.uk/en/content/cms/what\_we\_do/uk\_supply/energy\_mix/renewable/policy/renew\_obs/ renew\_obs.aspx

<sup>&</sup>lt;sup>117</sup>Ibid.

<sup>&</sup>lt;sup>118</sup>Gurdian.co.uk, *Risks to environment poses same dangers as terror, warns Blair*, 25 February 2003, available at http://www.guardian.co.uk/politics/2003/feb/25/uk.environment2.

afterwards, the UK government unveiled its Energy White Paper, a long-term strategy to achieve a "truly sustainable energy policy".<sup>119</sup> The strategy recognized a need for new energy policy that would allow it to adequately meet challenges of climate change through reducing carbon emissions by 60 per cent by 2050, for this purpose in accompaniment to the existing Climate Change Programme, an indicative 20 per cent target for renewables in the UK electricity generation by 2020 was set.<sup>120</sup> Tony Blair, in confirmation of the seriousness of his commitment to renewable energies and environmental protection, declared unconditional support for a 20 per cent mandatory target for renewable power as a share of the EU's generation capacity during the 2007 Spring European Council in Brussels: "We will therefore support the proposal for a binding EU-wide 20 per cent target for renewables".<sup>121</sup>

Notwithstanding the fact that France almost fully relies on nuclear power in the generation of electricity, it voted for a compulsory 20 per cent goal for renewables during the EU 2007 Summit. In 2002 French Ministry of Industry organized the first broad 'national debate on energy' throughout France aiming to define future national policy in the field of energy.<sup>122</sup>More than half of French people expressed their interest in questions related to energy, while another 70 per cent confessed that they were poorly informed of energy issues.<sup>123</sup> Based on results of the debate, the French government unveiled a White Paper on energy in which it elaborated guidelines for future legislation for the energy supply, and

<sup>&</sup>lt;sup>119</sup>UK's Energy White Paper,2003, p.7, available at

http://webarchive.nationalarchives.gov.uk/+/http://www.berr.gov.uk/files/file10719.pdf <sup>120</sup>lbid., p.55.

 <sup>&</sup>lt;sup>121</sup>Financial Times, ft.com, Blair backs EU renewable energy target, 27 February 2007, available at http://www.ft.com/cms/s/0/21c402d0-c752-11db-8078-000b5df10621.html#axzz1NIdL5Pf4
 <sup>122</sup>French Ministry of Economy, Industry and Employment, http://www.industrie.gouv.fr/cgi-

bin/industrie/f\_nrj023.pl?bandeau=/energie/politiqu/be\_polit.htm&gauche=/energie/politiqu/me\_polit.htm& droite=/energie/politiqu/ploe.htm

<sup>&</sup>lt;sup>123</sup>Vie Publique.fr, Au couer du débat publique, 'Un débat national en 2003 et l'adoption d'une loi de programme en 2005' [National debate in 2003 and adoption of the law on following financing in 2005], available at http://www.vie-publique.fr/politiques-publiques/politique-energie/index/

substantially increasing the role of renewable energies.<sup>124</sup> In 2005 these objectives laid down the basis of the new energy law that defined energy policy of France, which among others set national commitments to achieve 23 per cent share of renewable energies from renewable energy sources on the final consumption of energy by 2020, and increase to 50 per cent use of renewable heat during the same term.<sup>125</sup> At the EU 2007 Spring Summit in Brussels, French President Jacques Chirac took a breakthrough decision to back revolution on green energy, in spite of the initial opposition of France to mandatory EU-wide target.<sup>126</sup> French support allowed the adoption of a historical energy policy focused on climate change and renewable energy policy.

# 2.3. Germany as a *constructive pusher*<sup>127</sup> of the renewable energy policy in the EU

Germany with its thriving economy and strongest renewable energy industry among EU members is the country that would benefit the most in terms of strengthening its economic and political positions, expanding renewables industry and promoting environmental goals. Being the largest in Europe (and the sixth in the world) emitter of CO2 (as of 2007),<sup>128</sup> Germany is committed, more than any other country in the EU, to advancing green agenda and hastening the shift towards renewables, especially in the light of environmental commitments after Kyoto. In line with that, Germany has always been among the forerunners and leaders of green energy policy in the European Union (see, for example, Taylor *et al.* 

<sup>&</sup>lt;sup>124</sup>International Energy Agency' report, http://www.iea.org/textbase/pm/?mode=cc&action=detail&id=1218 <sup>125</sup>European Renewable Energy Council, *Renewable Energy Policy Review: France* (2009), p.3, available at http://www.erec.org/fileadmin/erec\_docs/Projcet\_Documents/RES2020/FRANCE\_RES\_Policy\_Review\_09\_Fina l.pdf

 <sup>&</sup>lt;sup>126</sup>Financial Times, *Boost for EU as Chirac backs revolution on green energy*, 9 March 2007, available athttp://www.ft.com/intl/cms/s/0/01b06d48-cde3-11db-839d-000b5df10621.html#axzz1NldL5Pf4
 <sup>127</sup>See, Liefferink, 1998

<sup>&</sup>lt;sup>128</sup> According to United Nations Statistics Division, *Millennium Development Goals indicators: Carbon dioxide emissions (CO<sub>2</sub>), thousand metric tones of CO<sub>2</sub>,* available at

http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=749&crid=

2008).<sup>129</sup> Unlike many other Member States, Germany has managed to meet and even surpass the target of 12 per cent for the share of renewables, which was set in the 1997 White Paper..<sup>130</sup> *Bundesrepublic'* policies of promoting and developing renewable energies have proven to be an efficient and effective tool to the extent that several EU members are following the German example.<sup>131</sup> How did Germany pave its way towards leadership in renewable energy policy in the EU? The underlying paragraphs outline German green policies and provide supportive evidence to the assumption about Germany's economic interest behind incorporating the 20 per cent target for renewables into the EU Strategy.

Since 1991, when the *Act on Feeding into the Grid Electricity from Renewable Energy Sources*<sup>132</sup> ("Stromeinspeisungsgesetz für Erneuerbare Energien") was adopted, a persistent development and promotion of renewable energy has started in Germany. The compensation rates which were laid down in the Electricity Feed Act provided an impetus for the boom in the wind renewable energy sector at such a rate that, by the late 1999, one-third of all wind energy capacities installed globally were found in Germany.<sup>133</sup>

In order to eliminate the imbalance on the renewable energy market and to spread out the success over the other sectors of renewables, the new *Act on Granting Priority to Renewable Energy Sources* ("Erneuerbare Energien Gesetz" or EEG)<sup>134</sup> was adopted on 29 March, 2000. EEG needed to update the obsolete Electricity Feed Act. In such a role, it aimed to provide for the legal conditions and to facilitate a sustainable development of energy

<sup>130</sup>According to Renewable Energy Department of Germany's *Federal Ministry for the Environment, Nature Conservation and Nuclear Safety,* 22 January 2008, http://www.erneuerbare-energien.de/inhalt/40791/5466/ <sup>131</sup>See, http://www.ren21.net/pdf/RE\_GSR\_2009\_Update.pdf

<sup>&</sup>lt;sup>129</sup> Taylor, J. *et al. (2008), '*A Fine Act to Follow. When it comes to renewable energy, Germany is the undisputed leader', *Alternatives Journal*; 2008, Vol. 34 Issue 5/6, p18-19

<sup>&</sup>lt;sup>132</sup> (entered into force on 1 January 1991) Outline of the Act is available on the website of International Energy Agency, http://www.iea.org/textbase/pm/?mode=re&id=31&action=detail

<sup>&</sup>lt;sup>133</sup> IWR, Die Business Welt der Regenerativen Energiewirtschaft [The World of Renewable Energy Industry], available at http://www.iwr.de/re/iwr/info0005e.html

<sup>&</sup>lt;sup>134</sup> EEG – Act on Granting Priority to Renewable Energy Sources, English version is available at http://www.erneuerbare-energien.de/files/pdfs/allgemein/application/pdf/res-act.pdf

supply in order to address the challenges of climate change, to protect the environment, and to achieve a substantial increase in the share of renewables in the overall energy consumption.<sup>135</sup> EEG has raised the compensations rate to suppliers for the electricity generated exclusively from renewable energy sources beyond the initial 5 per cent cap and extended the scope of compensatory payments to all types of renewables, thus having established the secure mechanism for long-term private investments in green energy sector.

In 2004 the Renewable Energy Sources Act (EEG) has been amended in order to include the provisions of the entered into force Directive 2001/77/EC<sup>136</sup> of the European Parliament and of the Council "on the promotion of electricity from renewable energy sources in the internal electricity market". While in its basic principles regarding remuneration of suppliers EEG remained unaltered, a further input was made to increase the share of renewables.<sup>137</sup> Accordingly, EEG set the goal to achieve at least a 20 per cent ratio of green energies in the total electricity supply by 2020 in order to accelerate development of clean technologies and reduce the costs of renewables.<sup>138</sup>

Germany's Renewable Energy Sources Act is by far the most successful large-scale policy framework for promotion and commercialization of renewable energies in both the European Union and outside. The adoption of EEG enabled Germany's renewables sector of industry to flourish, as the *Bundesrepublic* became the leading renewable energy economy in the world<sup>139</sup>. In terms of the economic impact of these achievements: 134000 jobs were created as a result of the Renewable Energy Source Act, while private investments in the

 <sup>&</sup>lt;sup>135</sup> EEG – Act on Granting Priority to Renewable Energy Sources, English version is available at http://www.erneuerbare-energien.de/files/pdfs/allgemein/application/pdf/res-act.pdf,p.5.
 <sup>136</sup> Consolidated version is available at

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2001L0077:20100401:EN:PDF <sup>137</sup> Amended Renewable Energy Act on 21 July 2004, available at

http://www.erneuerbare-energien.de/files/english/pdf/application/pdf/eeg\_gesetz\_merkmale\_en.pdf <sup>138</sup> Ibid., p.3.

<sup>&</sup>lt;sup>139</sup> RenewableEnergyWorld.Com, 'Germany: The World's First Major Renewable Energy Economy', 03 April 2009, available at http://www.renewableenergyworld.com/rea/news/article/2009/04/germany-the-worlds-first-major-renewable-energy-economy?cmpid=WNL-Wednesday-April8-2009

green sector accounted for dozens of billions of euro, let alone EUR 22.9 billion in 2006.<sup>140</sup> Since the adoption of the Electricity Feed Act in 1991, Germany's renewable energy industry has experienced a substantial boom and German companies became ones of the most dynamic and innovative ones worldwide. The list of the leaders of global renewable energy industry includes such German enterprises as 'Enercon'; the fourth largest wind turbine manufacturer, 'SolarWorld'; one of the biggest solar companies in the world, 'Q-Cells'; and many other, smaller, companies.

The pro-green government played a crucial role behind the proactive approach to the development of renewable energy in Germany. Following the landslide victory on the elections in 1998, the alliance of the SPD and The Greens joined the Federal government. The Head of this coalition, Gerhard Schroeder, became German Chancellor and remained in this position until 2004. During his chancellorship, MPs from The Greens party took up posts of the Minister of Health, the Minister of Environment, the Minister of Consumer Protection and Agriculture. Most notably, Joschka Fischer was appointed a vice-Chancellor and Minister of Foreign Affairs. Under the rule of Schroeder's government, renewable energy got a true momentum. In his inauguration speech in 1998, the new Chancellor made a breakthrough commitment to phase out nuclear power and to start developing a new alternative energy supply, pointing to the lack of support for nuclear energy in the society and strong domestic demand for the development of renewable energy sources in Germany.<sup>141</sup>

During the Earth Summit that took place in Johannesburg in 2002, renewable energy was recognized as a crucial component of sustainable development, including its contribution to strengthening energy security and combating climate change.<sup>142</sup> At the summit, Schroeder

<sup>&</sup>lt;sup>140</sup>Renewable Energy Sources Act Progress Report 2007, available at http://www.erneuerbareenergien.de/files/english/pdf/application/pdf/erfahrungsbericht\_eeg\_2007\_zf\_en.pdf

<sup>&</sup>lt;sup>141</sup> BBC News, *Germany to phase out nuclear energy – Schroeder*, 10 November 1998, available at http://news.bbc.co.uk/2/hi/world/monitoring/211911.stm

<sup>142</sup> http://www.earthsummit2002.org/

announced the staging in Germany of the biggest government-hosted conference dedicated to the promotion of renewable energy use and fight against global warming.<sup>143</sup> The subsequent International Renewable Energy Conference (*renewables2004*), which was held on 1-4 June, 2004 in Bonn, gathered senior-level representatives from the Executive and Legislatives branches of governments, international organizations, industry associations and business community, as well as delegates from civil society from 154 countries. Pointing to Germany's success story in support for renewable energies and to positive outcomes for both its industry and environment, Federal Minister for Environment called the European Union and other governments for following Germany's path and insighted them to set up a legally binding target for renewable energies share.<sup>144</sup>

The subsequent government led by Angela Merkel has, in general terms, continued to pursue the green agenda of Schroeder's Cabinet. In this context, Germany's presidency in the European Union in 2007 had a decisive role in setting a legally binding target for achieving a 20 per cent share for alternative energies in the EU's overall final consumption by 2020.

At the opening of the first European Sustainable Energy Week organized by the EU Commission and Germany's Environment Ministry in Brussels in January 2007 with participation of the Government representatives, major stakeholders and policy practitioner in field of renewable energy, Germany's Federal Minister for Environment Sigmar Gabriel emphasized the importance of an integrated policy towards energy and climate change in Europe.<sup>145</sup> Gabriel argued that the development of renewable energy in the EU should be given a priority, as without the latter it would not be possible to efficiently tackle the

<sup>&</sup>lt;sup>143</sup> http://www.ren21.net/REN21Activities/IRECs/tabid/5464/Default.aspx

<sup>&</sup>lt;sup>144</sup> 'We are making good progress', Plenary Session, renewables2004, Bonn, 3 June 2004, available at http://www.bmu.de/english/renewable\_energy/doc/6036.php; see also, Political Declaration of the conference, available at http://www.erneuerbare-energien.de/inhalt/6066/46255/

<sup>&</sup>lt;sup>145</sup>Press release: 'Minister Gabriel advocates new European energy and climate policy', Brussels, 29 January 2007, available at http://www.bmu.de/english/press\_releases/archive/16th\_legislative\_period/pm/38659.php

challenges of climate protection and energy security.<sup>146</sup> For that reason, the EU should facilitate expansion of renewables to a 20 per cent share by the year 2020, which in turn will make "...a major contribution to achieving our future climate protection goals".<sup>147</sup> This incentive was reflected at the highest political level. On 9 March, 2007, Merkel made a historical statement in relation to climate protection issue and development of renewable energy policy. Following the difficult negotiations with the EU Member States' Heads of State and Government, the Federal Chancellor declared that the EU has legally committed itself to increase the share of energy from renewable sources to 20 per cent and to achieve a to 20 per cent reduction of carbon emissions by 2020.<sup>148</sup>

**CEU eTD Collection** 

<sup>&</sup>lt;sup>146</sup>Gabriel's original speech: 'The new role of renewable energies', available at http://erneuerbareenergien.de/inhalt/38868/20026/

<sup>&</sup>lt;sup>147</sup> Press release: '*Minister Gabriel advocates new European energy and climate policy*', Brussels, 29 January

<sup>2007,</sup> available at http://www.bmu.de/english/press\_releases/archive/16th\_legislative\_period/pm/38659.php <sup>148</sup> Press release: '*Historical agreement on climate protection*', 9 March 2007, German presidency 2007,

available at http://www.eu2007.de/en/News/Press\_Releases/March/0309BKBruessel.html

### **Chapter 3: Difficulty of Policy Reversal**

In the previous chapter I have analyzed to what extent the formation of 20 per cent target for renewable energy can be explained through the lens of liberal intergovernmentalism theory, which emphasized interests and preferences of the Member States as main determinants of the integration process. Bearing in mind the two-level configuration of policy-making in the EU, the second chapter scrutinized, on the one hand, the debate and policy incentives towards alternative energies within the EU, which marked the coming into being of the EU 2020 Energy Strategy, and, on the other hand, examined the renewable energy policy in the selected Member States. The idea of the EU-wide mandatory 20 per cent target for renewables share has been driven by the *constructive pusher*, Germany, the country that brought this incentive to the bargaining table. In its turn, this initiative was further supported by other Member States, as result of their domestic preferences and/or economic interests for the promotion of common renewable energy policy.

This chapter seeks to test our second hypothesis stated in chapter 1, namely, the irreversibility of 20/20/20 targets, even in the light of the waves of Eastern enlargement. Making use of the theory of new historical institutionalism with its concept of path dependence, I will argue that any prospective revision by member governments of the EU-wide mandatory 20 per cent target was burdened by the sunk-cost of previous policy decisions at the EU level, mainly laid down in the Accession Treaty, which created an effect of 'exit threat'. The theory of new historical institutionalism focuses on the gaps that emerge from restrictions of Member States to exercise control over European institutions. This is due to the evolutionary nature of rules and policies that may both restrict member state options and open

channels for supranational activity.<sup>149</sup> As Bulmer suggests, the EU decision rules make it problematic for member governments to get back control, especially in the cases when unanimity applies, while sunk costs may make the regain of control impossible politically.<sup>150</sup> In this light, our analysis will be focused on the pre-requisites related to renewable energy laid down in the energy and environmental chapters of *acquis communautaire* for new Eastern members as well as on impact of the Structural funds in the increasing sunk costs. On the other hand, I will examine how challenges of energy security, environmental movements and civil society within the new Member States render the reversal of the path troublesome.

#### 3.1. Path Dependence

At the moment of accession the conditions of enlargement implied that new Member States must have complied with the acquis, including environmental and energy chapters, which among others conditions involved mandatory pre-requisites to increase share of renewable energy sources. Following the logic of new historical institutionalism, I suggest that these conditions laid down a fundamental basis for path dependence, which later translated into irreversibility of established targets for renewable energies share.

The EU energy policy presented in energy *acquis* centers around three major objectives: the improvement of competitiveness, the security of energy supply, and the protection of environment.<sup>151</sup> Promotion of sustainable development is in turn one of the major aims of environmental *acquis*.<sup>152</sup> In this context, the new Member States (which were, at the moment, EU-candidates) were required to make significant adjustments to comply with the *acquis* provisions in relation to the renewable energies promotion. In particular, within the

<sup>151</sup> EU acquis communautaire, Ch. 14-15, available at

 <sup>&</sup>lt;sup>149</sup> Pierson, P. (1998), 'A Historical Institutionalist Analysis', in Wayne Sandholtz and Alec Stone Sweet (eds), *European Integration and Supranational Governance, Oxford: Oxford University Press*, 1998, pp. 48-50.
 <sup>150</sup> Bulmer, S. (2009), '*Politics in Time* meets the politics of time: historical institutionalism and the EU

timescape', Journal of European Public Policy 16:2 March 2009, p. 313

http://ec.europa.eu/enlargement/enlargement\_process/accession\_process/how\_does\_a\_country\_join\_the\_e u/negotiations\_croatia\_turkey/index\_en.htm

<sup>&</sup>lt;sup>152</sup> Ibid, Ch. 27

framework of Directive 2001/77/EC on the promotion of electricity produced from renewable energy sources in the internal electricity market, new Member States (2004 and 2007 enlargements) were set in their Accession Treaty national indicative targets "for the contribution of electricity produced from renewable energy sources to gross electricity consumption by 2010".<sup>153</sup> These targets ranged from 3.6 per cent for Hungary and 7.5 per cent for Poland to 33 per cent for Romania and 49.3 per cent for Latvia.<sup>154</sup> In order to make sure that the EU-candidates would comply with these targets, the EU established a monitoring mechanism, which allowed seeing the progress of a particular candidate. Let us focus more narrowly on the cases of Poland, Hungary and the Czech Republic, the biggest new Member States that possess, at the same time, the lowest<sup>155</sup> share of renewables in gross final consumption.

#### 3.1.1. Policy Adjustments to Energy Acquis

In its 2002 annual report on Poland's progress towards the EU accession, the Commission insisted that Poland should strengthen its efforts in restructuring its energy sector, including a further promotion of increased use of renewable energy sources in order to meet its planned goal for 2010.<sup>156</sup> In order to comply with the relevant requirements, Poland had to amend its main energy policy document - *Energy Act*, which resulted in the adoption, in 2001, of the *Development Strategy of Renewable Energy Sources*. Within the framework of the latter, the Polish government introduced large-scale programme of subsidies for the promotion of renewable energy from biomass, while, in parallel, moderately increasing the

<sup>154</sup> Directive 2001/77/EC, p.7, for the most recent version, see Consolidated Version of 20 January 2011, available at

<sup>&</sup>lt;sup>153</sup> *Treaty of Accession*, Official Journal of the EU, L 236, Vol. 46, 23 September 2003, p.586, available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:236:0586:0657:EN:PDF

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2001L0077:20100401:EN:PDF <sup>155</sup> As of 2006, http://ec.europa.eu/energy/renewables/targets\_en.htm

<sup>&</sup>lt;sup>156</sup> 2002 Regular report on Poland's progress towards accession, 9 October 2002, p.91, available at http://ec.europa.eu/enlargement/archives/pdf/key\_documents/2002/pl\_en.pdf

price for electricity generated from coal for the period between 2004 and 2020.<sup>157</sup> These incentives contributed, in their turn, to the substantial inflow of foreign direct investments<sup>158</sup> into the Polish renewables sector.

As a way to fulfill the EU accession requirements, Hungary adopted the *Energy Conservation and Energy Efficiency Improvement Action Programme* in 1999.<sup>159</sup> This programme aimed to promote the increased energy production from renewable energy sources from 28 PJ in 1999 to 50 PJ in 2010, and allocated for this purpose US\$ 20 million per year for the period between 2002 and 2010 as well as prepared a supportive framework with direct subsidies and credits to producers.<sup>160</sup> As a matter of implementation of Hungary's accession to the EU and the Directive 2001/77/EC *the 2005 Electricity Act* was enacted, which confirmed Hungary's intention to achieve its 3.6 per cent target for renewables in electricity *generation by 2010.*<sup>161</sup> In 2007, the Hungarian government unveiled its *Strategy on Renewable Energy Sources 2007-2020*, in which it defined the target of fourfold (in comparison to 2006) increase in renewable energies share by 2020.<sup>162</sup>

For the purpose of adjustment to the severe *acquis* provisions related to renewable energy and climate protection, and in order to facilitate the reorganization of its energy sector, the Czech Republic introduced, in 2005, the new law *Act No. 180/2005 Coll. on Support of Electricity Production.*<sup>163</sup> This Act, which incorporated the 2001/77/EC Directive into the Czech legal system, serves the purpose of ensuring the Czech commitment to the achievement

<sup>&</sup>lt;sup>157</sup> Figorski, A. and Gula, E. (2009), 'Optimization of use of public funds for promotion of the rational use of energy and renewable energy sources: the example of Poland', *World Futures, 65:* 418,421.

<sup>&</sup>lt;sup>158</sup> As of 2007 they account for 300 million euro, according to Polish Information and Foreign Investment Agency, for more information see http://www.paiz.gov.pl/sectors/renewable\_energy

<sup>&</sup>lt;sup>159</sup> Hungarian Energy Office, *Energy Efficiency and Energy Conservation Programme*, 8 November 1999, available at http://www.eh.gov.hu/home/html/index.asp?msid=1&sid=0&hkl=116&lng=2

 <sup>&</sup>lt;sup>160</sup> International Energy Agency, *Global Renewable Energy: Policies and Measures. Hungary* http://www.iea.org/textbase/pm/?mode=re&action=view&country=Hungary
 <sup>161</sup> Ibid, Act LXXIX/2005

<sup>&</sup>lt;sup>162</sup> International Energy Agency, *Global Renewable Energy: Policies and Measures .Hungary* http://www.iea.org/textbase/pm/?mode=re&action=view&country=Hungary

<sup>&</sup>lt;sup>163</sup> United Nations Environment Programme, 'Sustainable Energy Policy of Czech Republic', pp.1-3, available at http://www.unep.org/GC/GCSS-IX/Documents/Czech-Rep-Theme%201-2-General.pdf

of a goal of an 8 per cent share of renewables by 2010, as laid down in the Accession Treaty. The Act also provides conditions for the popularization of green energies by introducing a supportive scheme – a 15-year guarantee of "solid feed-in tariffs" for electricity generated from renewable energy sources.<sup>164</sup> Furthermore, the new law has set conditions to lead the proportion of alternative energies in domestic consumption of primary energy sources to ambitious 15-16 per cent by 2030.<sup>165</sup>

#### **3.1.2. Role of Structural Funds**

The accession to the EU involves the 'stick and carrot' approach. If 'stick' implies structural adjustments to the demanding provisions of *acquis communautaire*, then 'carrot' allows new Members of the EU to rely on the allocation of financial assistance from the Structural Funds and Cohesion Funds under the EU Cohesion policy. In the context of the promotion of renewable energies, these financial resources facilitate the overcoming of the 'market failures and barriers' (such as external costs, external benefits and scarcity of information) to the use of alternative energy sources and the improvement of energy efficiency.<sup>166</sup> So far, Structural Funds have played an important role in the promotion of renewable development laid down in both the Accession Treaty and the 2001/77/EC Directive. Within the framework of the Lisbon Agenda, which prioritized sustainability, employment and economic growth, renewable energy related projects became

<sup>&</sup>lt;sup>164</sup> Ibid.

<sup>&</sup>lt;sup>165</sup> Ibid., p.3.

<sup>&</sup>lt;sup>166</sup> DG Environment News Alert Service, '*EU Structural Funds for Promoting a Sustainable Energy Sector*', 27 September 2007, available at

http://ec.europa.eu/environment/integration/research/newsalert/pdf/79na3.pdf

fully eligible for the Structural Funds benefits during the programming period of 2007-2013.<sup>167</sup>

During this period, more than EUR 62 billion has been and will be spent in the poorest EU regions, mostly in the New Member States, on the amelioration of the transport-networks, sustainable transport, environment and renewable energy in these countries. This money will be spent directly or indirectly through regional development programmes.<sup>168</sup> Thus the total amount of funds allocated directly for the energy production from renewable sources in Poland for the period of 2007-2013 account for EUR 400 million, while another EUR 27.9 billion will be spent for the Operational Programme Infrastructure & Environment<sup>169</sup> (Poland's largest EU-funded programme), which includes increasing generation of electricity from renewable sources from 2 per cent in 2004 to 7.5 per cent in 2013.<sup>170</sup> The other Eastern Member States have also largely benefited from the use of Structural Funds. Thus, in Czech Republic more than EUR 4 billion will be spent during the period 2007-2013 on the construction and reconstruction of renewable energies facilities aiming to substantially increase their share in the overall energy balance.<sup>171</sup> In the case of Hungary, over EUR 400 million is being allocated during the period 2007-2013 for the projects in the area of energy, with the aim to increase the usage of renewable sources in energy production and to provide supportive subsidies for renewable energy technologies.<sup>172</sup>

<sup>168</sup> Ibid., p.6

<sup>169</sup>Polish Ministry of Regional Development, *Infrastructure and Environment Programme* 

<sup>170</sup>International Network for Sustainable Energy, *Structural Fund Projects on Renewable Energy, Poland,* available at http://www.inforse.org/europe/Structuralfunds/SF\_Poland\_07-13.htm

<sup>&</sup>lt;sup>167</sup>New regulations for renewed Structural Funds and instruments 2007-2013 , available at http://ec.europa.eu/regional\_policy/sources/docgener/informat/reg2007\_en.pdf

http://www.mrr.gov.pl/english/european\_funds\_2007\_2013/european\_funds\_2007\_2013/pois/strony/infrastructureandenvironment.aspx

<sup>&</sup>lt;sup>171</sup> Ibid, Czech Republic,

available at http://www.inforse.org/europe/Structuralfunds/SF\_Czech\_07-13.htm <sup>172</sup> Ibid., *Hungary*,

available at http://www.inforse.org/europe/Structuralfunds/SF\_Hungary\_07-13.htm

Hence, the implementation of renewable energy set in the Energy 2020 Strategy is being co-funded by the relocation of financial assistance, which in parallel with inflow of foreign direct investments (as in above mentioned example of Poland) led to what economists call 'increasing returns' effect, i.e. where each "increment added to a particular line of activity yields larger than smaller benefits"<sup>173</sup>. As Pierson suggests, increasing returns make actors stick to a specific path, once initial movement is made in that direction.<sup>174</sup> In practice it means that increasing dividends from the renewable energy sectors make Member States' governments keep following this path, without considering a reversal unless while amount of dividends gradually increases.

#### 3.1.3 Sunk Costs

New Member States were required to step onto the common European path in relation to the development of renewable sources as a necessary criterion for their membership in the EU, as it was reflected in their Accession Treaty. However, in order to certainly soften up the costly adjustment to the EU Directives in the area of renewable energy in the least developed Eastern Member States, the allocation of financial assistances from Structural Funds has been used. Such mechanisms would allow the New Member States not only to compensate their expenses but also to attract the inflow of foreign direct investments in the emerging sector of renewables.<sup>175</sup> All these aforementioned reasons accounted for the rise of sunk costs in forms of significant efforts and adjustments made by the EU Candidates to comply with the provisions of *acquis*, which particularly involved large-scale reforms and expenses on the

<sup>&</sup>lt;sup>173</sup> Pierson, 2004, p.22

<sup>&</sup>lt;sup>174</sup> Ibid.,p23

<sup>&</sup>lt;sup>175</sup> See, for example the *Renewable Development Initiative* of European Bank for Reconstruction and Development, available at

http://www.ebrdrenewables.com/sites/renew/energyTech.aspx

implementation of policies related to renewable energy, and parallel EU funds allocated for this purposes.

Furthermore, the EU funds allocated for these purposes generated another form of sunk-costs. In order to maintain allocation of the funds at the same rate, new Member States had to keep following the targets, otherwise the reversal would mean cancellation of funding. At the same without Structural Funds attraction of the investors would be substantially more difficult, as governments would have provided financial subsidies from their national budgets in order to maintain the favorable conditions for investors. Given the fact that increasing share of renewables contributes to diversification of energy supplies, it thus strengthens energy security, which is one of the major problems for the New Member States.

# **3.2. Energy security challenges and public concerns about protection of environment in New Member States**

The New Member States expressed their concerns about the feasibility *vis-à-vis* 20/20/20 climate and renewable targets, pointing to the lack of support in the EU 2020 Strategy for nuclear power and coal technologies in meeting the targets, which are of crucial importance in their energy mix.<sup>176</sup> This notwithstanding, Member States of Eastern and Central Europe are more vulnerable in terms of security of energy supplies, and upon this criterion their dependence on imported hydrocarbons from Russia is substantially higher than in that in Western Europe. For that reason, the diversification of energy supplies is of vital interest for them. These concerns were reinforced in 2006, because of the unresolved contract disputes concerning Russia's cut of its gas supplies to the Ukraine, which caused a temporary

<sup>&</sup>lt;sup>176</sup>Euractiv.com, 'Eastern Europe struggles to meet EU climate targets', 16 July 2010, available at http://www.euractiv.com/en/enlargement/eastern-europe-struggles-meet-202020-target-news-496400

<sup>42</sup> 

30 per cent decline in gas flows to the EU.<sup>177</sup> Against this background, Eastern EU members, who suffered more than others from the gas conflict, were eager to seek a comprehensive and coherent EU policy towards energy security, or at least a certain mediation on behalf of the EU during energy negotiations with Russia and other suppliers. In this context, the European Commission called Member States upon taking measures to decrease energy dependency, in particular through increasing share of renewable sources in domestic consumption.

As Buchan argues, the Commission has historically been a *demandeur* in energy security, seeking a role that has not been granted by the member states, especially in relation to negotiations with any specific supplier, like Russia.<sup>178</sup> In such a role, as a response to the energy security challenges, the European Commission unveiled, in March 2006, its Green Paper - *European Strategy for Sustainable, Competitive and Secure Energy*. This paper asserted the EU's vulnerability of the import of hydrocarbons from the insecure regions.<sup>179</sup> As one of the remedies against future crises, the Commission proposed the 'climate-friendly diversification of energy supplies', which includes actions on that involve encouragements on use of competitive indigenous and renewable energy.<sup>180</sup>

Such an opinion was in line with the growing opposition to both coal mining and nuclear power in the EU. Consequently in Poland, for example, which generates a vast majority of its energy from coal, public opposition<sup>181</sup> renders it problematic to obtain planning permits to develop new mines. It is against this background that, starting from 2008, Poland

<sup>&</sup>lt;sup>177</sup> BBC News online, 'Russia cuts Ukraine gas supplies', January 1 2006, available at http://news.bbc.co.uk/2/hi/4572712.stm

<sup>&</sup>lt;sup>178</sup> Buchan, D.: Energy Policy: Sharp Challenges and Rising Ambitions' in: 'Policy-Making in the European Union' ed. by Wallace et al., Oxford University Press, 2010. pp. 368-371

<sup>&</sup>lt;sup>179</sup> Green Paper, 'A European Strategy for Sustainable, Competitive and Secure Energy', 8 March 2006, available at http://europa.eu/documents/comm/green\_papers/pdf/com2006\_105\_en.pdf

<sup>&</sup>lt;sup>180</sup> Ibid., p.3,10

<sup>&</sup>lt;sup>181</sup> For the recent case see, *Konin coalition stands up against coal*, 17 November 2008, available at

became a net importer of coal, which in turn negatively affects its energy security.<sup>182</sup> In its turn, Slovakia's plans to build a new coal power plant in Trebisov near the Hungarian border caused severe protests from Hungarian officials and local farmers. Under these circumstances, Slovak authorities had to reject their idea.<sup>183</sup> Furthermore, recent EU Council meeting has denuded of hope Poland and other coal-depending countries to avoid paying for EU emissions permits, thus trammeling future plans for new coal power.<sup>184</sup>

Ever since the Chernobyl meltdown, further development of nuclear power has become a controversial and highly disputable issue in the EU. According to a study by *Eurobarometer*, public opinion in the EU does not favor nuclear power as a leading source of energy. The majority of European citizens, including those in the new Member States, oppose the increase in nuclear power share in the future, while more than half of the European population believes that the risk of nuclear power as an energy source outweighs its advantages.<sup>185</sup> At the same time, 80 per cent of the EU citizens support renewable energies as their preferred alternative to imported high-priced hydrocarbons.

**CEU eTD Collection** 

<sup>&</sup>lt;sup>182</sup>According to International Energy Agency report, available at www.iea.org/Textbase/npsum/Poland2011sum.pdf

<sup>&</sup>lt;sup>183</sup> BusinessNewEurope.eu, *A Hungarian wine and a power plant,* 16 November 2007, available at http://www.bne.eu/story708/A\_Hungarian\_wine\_and\_a\_power\_plant

 <sup>&</sup>lt;sup>184</sup> Reuters.com, EU rules hinder Poland's plans for new coal power, 29 March 2011, available at http://www.reuters.com/article/2011/03/29/us-eu-energy-coal-idUSTRE72S4D620110329
 <sup>185</sup> Special Eurobarometer report – European and Nuclear Safety, February 2007, available at

http://ec.europa.eu/public\_opinion/archives/ebs/ebs\_262\_en.pdf

### Conclusion

This thesis aimed at examining the rationale behind embedding of a legally binding EU-wide target for the proportion of energy from renewable sources into Energy 2020 Strategy, and answering the question of why did this goal retained on the agenda despite the impediments caused by the Eastern enlargement. With regard to our goal, I have elaborated two hypotheses, which were addressed in chapters two and three.

In chapter 2 I have traced the path of emergence of the mandatory 20 per cent target for renewables share as a constituent part of the EU energy policy. Given the two-level character of policy-making in the EU with input coming from both the EU institutions and the Member States, I assumed that the adoption of legally binding target for renewables on the EU agenda follows the intergovernmentalist logic. It implies that the European integration in the field of green energy was driven by the Member States that were seeking to advance their domestic preferences and interests (economic, environmental, socio-political, *etc.*), thereby they were interested in designing the EU-wide policy. However, our findings suggest that the initial assumption with regard to the supremacy of intergovernmentalism explanation proved true only partially. An important role in setting the agenda in renewable energy policy was also played by the EU institutions – the European Commission and the European Parliament.

In this context, I concede that certain aspects of supranational governance, such as the Commission's role as efficient "process manager," and the Parliament's power of agendasetting, should also be considered as a possible explanation for the origin of setting out a mandatory EU-wide target for energy from renewable sources.<sup>186</sup> On a practical note, Germany, with its most advanced policy framework towards renewables and state-of-art

<sup>&</sup>lt;sup>186</sup> See, Sweet, Alec Stone and Sandholtz Wayne (1998), 'Integration, Supranational Governance, and the Institutionalization of the European Polity', in Alec Stone and Sandholtz Wayne (eds) *European Integration and Supranational Governance*, Oxford University Press, p36

industry, seems to have been the main driver of the incorporation of compulsory target into the EU energy policy. Making use of its presidency in the European Council in 2007, Germany brought this issue on the bargaining table, and other Member States, in turn, backed this incentive, thus achieving what Moravcsik called 'a better collective outcome'<sup>187</sup>.

In chapter 3, I tested our second hypothesis regarding the irreversibility of 20 per cent target for renewables share in light of the EU enlargement. In our analysis, we have relied on the explanatory power of path dependence concept, a constituent part of the New Historical Institutionalism theory. The so-called sunk-costs render it difficult to revise the results of certain policy development. In the context of renewables target it involved examination of the *acquis communautaire* conditions which imposed on the prospective Candidate countries compliance with its provisions related to renewable energy.

The empirical evidence suggests that the New Member States were required to make some serious structural adjustments in order to fulfill the provisions of energy acquis and to meet the requirements of increasing share of renewables in their energy mix, as laid down in their Accession Treaty and 2001/77/EC Directive. These adjustments involved the sunk-sots (transaction costs of previous policy arrangements at the EU level), which burdened the prospective revision of the targets. Therefore, the membership in the EU itself implied for the Candidate countries a requirement of compliance with the legally binding targets for alternative energies. For that reason, once they joined the European Union, the New Member States found themselves bound by the institutional stickiness of the previous policy arrangements. The painful structural adjustments and governmental expenses required for the implementation of renewables commitments generated the effect of sunk-costs, which was

<sup>&</sup>lt;sup>187</sup> Moravcsik, A. and. Schimmelfennig, F: (2009), 'Liberal Intergovernmentalism', in: A. Wiener and T.Diez (eds.), *European Integration Theory*, (Oxford: Oxford University Press), p.77.

reinforced by the allocation of larger financial assistance from the Structural Funds. The aforementioned makes the reversal difficult. It also involves high transaction costs.

Finally, the energy dependence addressed the issue of the diversification of energy supplies before the New Member States. However, these States' governments could not solve this challenge by opting strictly for their preferential sources of energy, such as coal and nuclear power due to both domestic environmental opposition and restrictions imposed by the supranational actors.

# **Bibliography**

#### 1. Primary sources

A European Strategy for Sustainable, Competitive and Secure Energy, available on http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:52006DC0105:EN:NOT

An Energy Policy for Europe, available at http://ec.europa.eu/energy/energy\_policy/doc/01\_energy\_policy\_for\_europe\_en.pdf

Amended Renewable Energy Directive available on http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:140:0016:0062:en:PDF

Amended Renewable Energy Act on 21 July 2004, available at http://www.erneuerbareenergien.de/files/english/pdf/application/pdf/eeg\_gesetz\_merkmale\_en.pdf

*Danish Energy Policy 1970-2010*, Danish Energy Policy, available at http://www.ens.dk/en-US/Info/news/Factsheet/Documents/DKEpol.pdf%20engelsk%20til%20web.pdf;-fqs0002204.

Department of Energy and Climate Change: Digest of United Kingdom energy statistics (DUKES)", available at http://www.decc.gov.uk/assets/decc/Statistics/publications/dukes/313-dukes-2010-ch7.pdf

Directive 2001/77/EC on Electricity Production from Renewable Energy Sources available on http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32001L0077:EN:NOT

DG Environment News Alert Service, '*EU Structural Funds for Promoting a Sustainable Energy Sector*', 27 September 2007, available at http://ec.europa.eu/environment/integration/research/newsalert/pdf/79na3.pdf

EU acquis communautaire, available at

 $http://ec.europa.eu/enlargement/enlargement\_process/accession\_process/how\_does\_a\_country_join\_the\_eu/negotiations\_croatia\_turkey/index\_en.htm$ 

*EEG – Act on Granting Priority to Renewable Energy Sources,* English version is available at http://www.erneuerbare-energien.de/files/pdfs/allgemein/application/pdf/res-act.pdf

Energy 2020 http://ec.europa.eu/energy/publications/doc/2011\_energy2020\_en.pdf, (Accessed on May 1, 2011) *European Conference for Renewable Energy* – 'Intelligent Policy Options', Berlin 19-21 January 2004 Summary of recommendations is available at http://ec.europa.eu/environment/jrec/pdf/jrec info berlin conclusions final.pdf

European Parliament resolution on the International Conference for Renewable Energies, 1 April 2004 Available at http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P5-TA-

Available at http://www.europarl.europa.eu/sides/getDoc.do?type=1A&reference=P5-1A-2004-0276&language=EN

European Parliament Resolution 2004/2153(INI), 29 September 2005, in Official Journal of the European Union, 21.9.2006, available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2006:227E:0599:0608:EN:PDF

*European Council' Document* 7775/1/06 REV 10, 22/23 March, 2006, pp.13-15.Available at http://www.consilium.europa.eu/uedocs/cms\_data/docs/pressdata/en/ec/89013.pdf

*European Parliament Resolution INI/2006/2113*, 14 December 2006, available at http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P6-TA-2006-0603&language=EN#def\_1\_13

European Renewable Energy Council, *Renewable Energy Policy Review: France* (2009), available at http://www.erec.org/fileadmin/erec\_docs/Projcet\_Documents/RES2020/FRANCE\_RES\_Poli cy\_Review\_09\_Final.pdf

Eurostat *Energy - Yearly Statistic 2008* http://epp.eurostat.ec.europa.eu/cache/ITY\_OFFPUB/KS-PC-10-001/EN/KS-PC-10-001-EN.PDF

*Eurostat Report,* September 2009 http://epp.eurostat.ec.europa.eu/cache/ITY\_OFFPUB/KS-SF-09-072/EN/KS-SF-09-072-EN.PDF (Accessed on April 30, 2011)

*Eurostat Report on EU energy production and import* http://epp.eurostat.ec.europa.eu/statistics\_explained/index.php/Energy\_production\_and\_impor ts#Imports

Eurobarometer' survey 'Attitudes towards energy' is available at http://ec.europa.eu/public\_opinion/archives/ebs/ebs\_247\_en.pdf

Special Eurobarometer report – *European and Nuclear Safety*, February 2007, available at http://ec.europa.eu/public\_opinion/archives/ebs/ebs\_262\_en.pdf

French Ministry of Economy, Industry and Employment, http://www.industrie.gouv.fr/cgibin/industrie/f\_nrj023.pl?bandeau=/energie/politiqu/be\_polit.htm&gauche=/energie/politiqu/ me\_polit.htm&droite=/energie/politiqu/ploe.htm *Federal Ministry for the Environment, Nature Conservation and Nuclear Safety,* 22 January 2008, http://www.erneuerbare-energien.de/inhalt/40791/5466/

Green Paper, 'A European Strategy for Sustainable, Competitive and Secure Energy', 8 March 2006, available at http://europa.eu/documents/comm/green papers/pdf/com2006 105 en.pdf

Green Paper – *Energy for the future: renewable sources of energy*', available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:1996:0576:FIN:EN:PDF

Hungarian Energy Office, *Energy Efficiency and Energy Conservation Programme*, 8 November 1999, available at http://www.eh.gov.hu/home/html/index.asp?msid=1&sid=0&hkl=116&lng=2

International Network for Sustainable Energy, *Structural Fund Projects on Renewable Energy, Poland*, available at http://www.inforse.org/europe/Structuralfunds/SF\_Poland\_07-13.htm

International Network for Sustainable Energy, *Structural Fund Projects on Renewable Energy*, Czech Republic available at http://www.inforse.org/europe/Structuralfunds/SF Czech 07-13.htm

International Network for Sustainable Energy, *Structural Fund Projects on Renewable Energy, Hungary* available at http://www.inforse.org/europe/Structuralfunds/SF\_Hungary\_07-13.htm

International Energy Agency' report, http://www.iea.org/textbase/pm/?mode=cc&action=detail&id=1218

International Energy Agency, *Global Renewable Energy: Policies and Measures. Hungary,* Act LXXIX/2005 http://www.iea.org/textbase/pm/?mode=re&action=view&country=Hungary

International Energy Agency report on Poland, available at www.iea.org/Textbase/npsum/Poland2011sum.pdf

Kyoto Protocol on climate change http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32002D0358:EN:NOT Accessed on April 30, 2011

New regulations for renewed Structural Funds and instruments 2007-2013, available at http://ec.europa.eu/regional\_policy/sources/docgener/informat/reg2007\_en.pdf

Press release: '*Minister Gabriel advocates new European energy and climate policy*', Brussels, 29 January 2007, available at http://www.bmu.de/english/press releases/archive/16th legislative period/pm/38659.php Press release: '*Minister Gabriel advocates new European energy and climate policy*', Brussels, 29 January 2007, available at http://www.bmu.de/english/press releases/archive/16th legislative period/pm/38659.php

Press release: '*Historical agreement on climate protection*', 9 March 2007, German presidency 2007, available at http://www.eu2007.de/en/News/Press Releases/March/0309BKBruessel.html

Polish Ministry of Regional Development, *Infrastructure and Environment Programme* http://www.mrr.gov.pl/english/european\_funds\_2007\_2013/european\_funds\_2007\_2013/pois/ strony/infrastructureandenvironment.aspx

Polish Information and Foreign Investment Agency, http://www.paiz.gov.pl/sectors/renewable\_energy

*Poland's progress towards accession, Regular report,* 9 October 2002, p.91, available at http://ec.europa.eu/enlargement/archives/pdf/key\_documents/2002/pl\_en.pdf

Renewable Energy Road Map. 'Renewable energies in the 21st century: building a more sustainable future', 10 January 2007, p.3, available at http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2006:0848:FIN:EN:PDF

*Renewable Development Initiative* of European Bank for Reconstruction and Development, available at http://www.ebrdrenewables.com/sites/renew/energyTech.aspx

*Renewables Obligation*, The UK' Department of Energy and Climate Change, http://www.decc.gov.uk/en/content/cms/what\_we\_do/uk\_supply/energy\_mix/renewable/polic y/renew\_obs/renew\_obs.aspx

Renewable Energy Sources Act Progress Report 2007, available at http://www.erneuerbareenergien.de/files/english/pdf/application/pdf/erfahrungsbericht\_eeg\_2007\_zf\_en.pdf

Single European Act http://ec.europa.eu/economy\_finance/emu\_history/documents/treaties/singleuropeanact.pdf

Treaty Establishing the European Coal and Steal Community and Annexes I-III, Paris, 18 April 1951. Available at: http://eur-lex.europa.eu/en/treaties/index.htm.

Treaty Establishing the European Atomic Energy Community, OJ C 84/1 of 30 March 2010

Treaty of Lisbon (TEU) http://eur-lex.europa.eu/JOHtml.do?uri=OJ:C:2007:306:SOM:EN:HTML

*Treaty of Accession*, Official Journal of the EU, L 236, Vol. 46, 23 September 2003, p.586, available at http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2003:236:0586:0657:EN:PDF

UK's Energy White Paper, 2003, p.7, available at http://webarchive.nationalarchives.gov.uk/+/http://www.berr.gov.uk/files/file10719.pdf

United Nations Statistics Division, *Millennium Development Goals indicators: Carbon dioxide emissions (CO<sub>2</sub>), thousand metric tones of CO<sub>2</sub>, available at http://mdgs.un.org/unsd/mdg/SeriesDetail.aspx?srid=749&crid=* 

United Nations Environment Programme, 'Sustainable Energy Policy of Czech Republic', pp.1-3, available at http://www.unep.org/GC/GCSS-IX/Documents/Czech-Rep-Theme%201-2-General.pdf

*White Paper for Renewable Energy: Targets for Electricity and Transport 1997* Available at http://europa.eu/documents/comm/white papers/pdf/com97 599 en.

'We are making good progress', Plenary Session, renewables2004, Bonn, 3 June 2004, available at

http://www.bmu.de/english/renewable\_energy/doc/6036.php; see also, *Political Declaration* of the conference, available at http://www.erneuerbare-energien.de/inhalt/6066/46255/

http://www.earthsummit2002.org/

http://www.ren21.net/pdf/RE GSR 2009 Update.pdf

http://www.ren21.net/REN21Activities/IRECs/tabid/5464/Default.aspx

#### 2. Secondary sources

Alegría Mancisidor *et al.*, (2009), 'European Union's renewable energy sources and energy efficiency policy review: The Spanish perspective' in *Renewable and Sustainable Energy Reviews*, 13, pp. 100-114

Bulmer, S. (2009), '*Politics in Time* meets the politics of time: historical institutionalism and the EU timescape', *Journal of European Public Policy 16:2 March 2009*, p. 313

Buchan, D.: Energy Policy: Sharp Challenges and Rising Ambitions' in: 'Policy-Making in the European Union' ed. by Wallace et al., Oxford University Press, 2010. pp. 368-371

Dusonchet,L. and Telaretti L., (2010), 'Economic Analysis of Different Supporting Policies for the Production of Electrical Energy by Solar Photovoltaics in Eastern European Union Countries', *Energy Policy; Aug2010, Vol. 38 Issue 8, pp. 4011-20* 

Elliot, D.,(2000), 'Renewable energy and sustainable futures', *Futures, Vol.32, Issues 3-4, Apr.2000, pp.261-74* 

Fouquet, D. *et al.*, 'European renewable energy policy at crossroads-Focus on electricity support mechanisms', *Energy Policy; November 2008 36 (11), pp.4079-4092;* 

Figorski, A. and Gula, E. (2009), 'Optimization of use of public funds for promotion of the rational use of energy and renewable energy sources: the example of Poland', *World Futures*, *65*: 418-421.

Grubb, M. and Vigotti, R., (1997), 'Renewable energy strategies for Europe : electricity systems and primary electricity sources', London : *Royal Institute of International Affairs*, Descript xxiv

Grubb, M., J. V. Mitchell, et al. (1996)., The new geopolitics of energy. London: Riia, 1996

Grubb, M., (2005), 'Climate policy options post-2012: European strategy, technology and adaptation after Kyoto' in: Bert Metz and Mike Hulme (guest eds.); London: Earthscan

Grubb, M., *et al.*, (2008), *Delivering a Low-Carbon Electricity System*, Cambridge: Cambridge University Press

Gordon Edge 'A Harsh Environment: The Non-Fossil Fuel Obligation and the UK Renewables Industry' in: Mallon, K (ed.), *Renewable Energy Policy and Politics A Handbook for Decision-making* 

Haas *et al.*, (2004), 'How to promote renewable energy systems successfully and effectively', *Energy Policy* 32, pp. 833-39

Jordan, Andrew *et al.*, (1999), 'Innovative and responsive? A longitudinal analysis of the speed of EU environmental policy-making, 1967-97'. *Journal of European Public Policy* 6:3 September 1999, pp. 376-98.

Jones, Christopher (2007). 'EU renewables ambitions are unrealistic', *Modern Power* Systems, Vol. 27, Issue 8, p.5, <sup>1</sup>/<sub>2</sub>

Kaygusuz, K., (2008), 'The Future of Nuclear Power and Renewable Energy Sources in the European Union', *Energy Sources Part B: Economics, Planning & Policy*; Oct. 2008, Vol. 3 Issue 4, pp. 348-361

Lund, P.D., 2007. 'The link between political decision-making and energy options: Assessing future role of renewable energy and energy efficiency in Finland', in Energy 32(2007) pp. 2271-2281

Lenschow, Andrea, (2010), 'Environmental Policy. Contending Dynamics of Policy Change' in: Wallace *et al.* (ed.) *Policy-Making in the European Union*, Oxford: Oxford University Press, 2010

Liefferink, D. and Andersen, M. (1998). 'Strategies of the 'green' member states in EU environmental policy-making', *Journal of European Public Policy 5:2, June 1998* 

Mayring, Philipp (2000), 'Qualitative Content Analysis' [28 paragraphs]. Forum Qualitative Sozialforschung / Forum: Qualitative Social Research, 1(2), Art. 20, http://nbn-resolving.de/urn:nbn:de:0114

Mayer, S.: 'Path dependency and Commission activism in the evolution of the European Union's external energy policy' in: *Journal of International Relations and Development* (2008), 11, pp.251-254

Moravcsik, A. and. Schimmelfennig, F. (2009), 'Liberal Intergovernmentalism', in A. Wiener and T.Diez (eds.), *European Integration Theory*, (Oxford: Oxford University Press)

Moravcsik, A.: (1998), '*The Choice for Europe. Social Purpose and State Power from Messina to Maastricht*', Ithaca, NY: Cornell University Press

Midtun and Gautesen (2007), 'Feed in or certificates, competition or complementarily? Combining a static efficiency and a dynamic innovation perspective on the greening of the energy industry', *Energy Policy*, 35, pp. 1419-22

Nielsen, H. Krisitian (2005), 'Danish Wind Power Policies from 1976 to 2004: A Survey of Policy Making and Techno-economic Innovation' in Lauber, Volkmar (ed.) *Switching to Renewable Power*, London: Earthscan, 2005

Ortega and Pérez, (2005), 'Spanish Renewable Energy: Successes and Untapped Potential' in: Mallon, K (ed.), *Renewable Energy Policy and Politics A Handbook for Decision-making* 

Pierson, P.: 'Politics in Time' (2004), Princeton: Princeton University Press, p. 35.

Pierson, P. 'A Historical Institutionalist Analysis', in: Wayne Sandholtz and Alec Stone Sweet (eds.), *European Integration and Supranational Governance, Oxford: Oxford University Press*, 1998, pp.48-50.

Pierson, P. (1993). 'When Effect becomes Cause: Policy Feedback and Political Change' in *World Politics*, 45, pp. 595-628

Sweet, Alec Stone and Sandholtz Wayne (1998), 'Integration, Supranational Governance, and the Institutionalization of the European Polity', in Alec Stone and Sandholtz Wayne (eds) *European Integration and Supranational Governance*, Oxford University Press, pp1-27

Taylor, J. *et al. (2008),* 'A Fine Act to Follow. When it comes to renewable energy, Germany is the undisputed leader', *Alternatives Journal*; 2008, Vol. 34 Issue 5/6, p18-19

Volkmar, S. 'Switching to Renewable Power', (Earthscan, 2005), pp.203-217

Youngs, R.: 'Energy security: Europe's new foreign policy challenge', Routledge, 2009, p. 2.

Zamfir, Andreea (2009), 'Managing Renewable Energy in the European Union', Annals of the University of Oradea: Economic Science Series; Vol. 18 Issue 4, pp. 526-29

Zito, Anthony, (2002), 'Task Expansion: A Theoretical Overview' in Andrew Jordan (ed.) '*Environmental Policy in the European Union'*, London:Earthscan

BBC News online, *Blair issues global warming challenge*, 1 September 2002, available at http://news.bbc.co.uk/2/hi/uk\_news/politics/2228741.stm

BBC News online, 'Russia cuts Ukraine gas supplies', January 1 2006, available at http://news.bbc.co.uk/2/hi/4572712.stm

BBC News online, *Germany to phase out nuclear energy – Schroeder*, 10 November 1998, available at http://news.bbc.co.uk/2/hi/world/monitoring/211911.stm

BusinessNewEurope.eu, *A Hungarian wine and a power plant,* 16 November 2007, available at http://www.bne.eu/story708/A\_Hungarian\_wine\_and\_a\_power\_plant

Bloomberg.com, U.K. Urged to Abolish Renewable Goals, Spend Less to Cut CO2, 04 May 2011, available on http://www.bloomberg.com/news/2011-05-04/u-k-urged-to-abolish-renewable-goals-spend-less-to-cut-carbon.html

Euractiv.com, *Poland 'needs more time' to meet EU climate target*, 24 June 2010, available on http://www.euractiv.com/en/priorities/poland-needs-more-time-to-meet-climate-target-news-495566

Euractiv.com, *Bulgaria debates economic impact of CO2 targets*, 15 July 2010, available on http://www.euractiv.com/en/priorities/bulgaria-debates-economic-impact-co2-targets-news-495586

Euractiv.com, *Slovakia's new government to set tone of climate policies*, 01 July 2010, available on http://www.euractiv.com/en/priorities/slovakia-s-new-government-to-set-the-tone-of-climate-policies-news-495793

Euractiv.com, 'Eastern Europe struggles to meet EU climate targets', 16 July 2010, available at http://www.euractiv.com/en/enlargement/eastern-europe-struggles-meet-202020-target-news-496400

Euractiv.com, *Renewables vs. nuclear: surveys offer contrasting pictures*, 29 June 2007 available at http://www.euractiv.com/en/energy/renewables-vs-nuclear-surveys-offer-contrasting-picture/article-151929

Euractiv.com, '*The EU*'s energy mix: aiming at diversity', 31 August 2007, available at http://www.euractiv.com/en/energy/eu-energy-mix-aiming-diversity/article-163228

Financial Times, *Boost for EU as Chirac backs revolution on green energy*, 9 March 2007, available at http://www.ft.com/intl/cms/s/0/01b06d48-cde3-11db-839d-000b5df10621.html#axz1NldL5Pf4

*Financial Times*, ft.com, *Blair backs EU renewable energy target*, 27 February 2007, available at http://www.ft.com/cms/s/0/21c402d0-c752-11db-8078-000b5df10621.html#axz1NldL5Pf4

Greenpeace.org *Konin coalition stands up against coal*, 17 November 2008, available at http://www.greenpeace.org/international/en/news/features/poland-coal-climate171108/

Gurdian.co.uk, *Risks to environment poses same dangers as terror, warns Blair*, 25 February 2003, available at http://www.guardian.co.uk/politics/2003/feb/25/uk.environment2.

IWR, Die Business Welt der Regenerativen Energiewirtschaft [*The World of Renewable Energy Industry*], available at http://www.iwr.de/re/iwr/info0005e.html

RenewableEnergyWorld.Com, '*Germany: The World's First Major Renewable Energy Economy*', 03 April 2009, available at http://www.renewableenergyworld.com/rea/news/article/2009/04/germany-the-worlds-first-major-renewable-energy-economy?cmpid=WNL-Wednesday-April8-2009

Reuters.com, *EU rules hinder Poland's plans for new coal power*, 29 March 2011, available at http://www.reuters.com/article/2011/03/29/us-eu-energy-coal-idUSTRE72S4D620110329

Reuters.com, *Vestas kept No 1, spot in wind market*, 17 March 2010, available at http://uk.reuters.com/article/2010/03/17/idUKLDE62G1JN20100317

The Telegraph, *Ed Miliband's green energy targets 'unrealistic'*, 30 November 2010, available on http://www.telegraph.co.uk/earth/environment/8167812/Ed-Milibands-green-energy-targets-unrealistic.html

Vie Publique.fr, Au couer du débat publique, 'Un débat national en 2003 et l'adoption d'une loi de programme en 2005' [National debate in 2003 and adoption of the law on following financing in 2005], available at http://www.vie-publique.fr/politiques-publiques/politique-energie/index/