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A Guide to EU Renewable Energy Policy

A Guide to EU Renewable Energy Policy

Comparing Europeanization and Domestic Policy Change in EU member states

Israel Solorio, *National Autonomous University of Mexico*
Helge Jörgens, *Freie Universität Berlin*
(eds)

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Contributors

Ancygier, Andrzej works as climate policy analyst at Climate Analytics. He also teaches courses about European Environmental Policy and Environmental Social Movements at New York University and Freie Universität in Berlin.

Bechberger, Mischa holds a PhD as a political scientist and has worked during more than 10 years in the field of promotion policy for renewable energies.

Bocquillon, Pierre is Post-Doctoral Fellow in the Centre for Environment, Energy and Natural Resource Governance (C-EENRG), University of Cambridge.

Davidescu, Simona is Research Associate at the EU-Asia Institute at ESSCA Angers and Associate Lecturer at the University of York, Department of Politics.

Di Lucia, Lorenzo is Associate Researcher at Imperial College London working on an integrated approach to the governance of land use and bioenergy systems.

Di Nuccia, Maria Rosaria is Senior Researcher at the Environmental Policy Research Centre, Freie Universität Berlin.

Dyrhaug, Helene is Associate Professor, Institute for Social Sciences and Business at Roskilde University.

Escribano, Gonzalo is Director of the Energy Programme at Elcano Royal Institute (Madrid), and Professor of Economics at the Spanish Open University (UNED).

Evrard, Aurélien is Lecturer in Political Science at Université Sorbonne Nouvelle / Paris 3 and Research Associate at Sciences Po / Centre d'études européennes.

Fairbrass, Jenny is Senior Lecturer in Business and Management at the Norwich Business School of the University of East Anglia. Co-convenor of the UACES CRN on the European Energy Policy.

Fernandez, Rosa is Senior Lecturer and Programme Leader in Economics at the University of Chester.

Hinrichs-Rahlwes, Rainer has a leading role at EREF (European Renewable Energies Federation).

Hirschl, Bernd is head of the Department on Sustainable Energy and Climate Protection at the Institute for Ecological Economy Research (IÖW) in Berlin.

Hoppe, Thomas is Associate Professor within the faculty of Technology, Policy and Management (TPM) at Delft University of Technology.

Jankowska, Karolina is Scientific Advisor at the Berlin House of Representatives. She worked previously as a researcher, consultant and lecturer.

Jörgens, Helge is Senior Lecturer in the Department of Political and Social Sciences and Managing Director of the Environmental Policy Research Centre at the Freie Universität Berlin. In 2016/17 he is a visiting professor at ISCTE-Instituto Universitário de Lisboa.

Maltby, Tomas is Lecturer in International Politics in the Department of Political Economy at King's College London.

Ohlhorst, Dörte is Project Manager at Environmental Policy Research Centre, Freie Universität Berlin.

Öller, Eva is PhD Candidate at the Environmental Policy Research Center, Freie Universität Berlin.

Russolillo, Daniele is Program Manager of Fondazione per l'Ambiente - Turin School of Local Regulation, working on sustainable energy policies and economic regulation of local public services.

Solorio, Israel is Associate Professor of Public Administration at the National Autonomous University of Mexico. Co-convenor of the UACES CRN on the European Energy Policy.

Van Bueren, Ellen is Professor of Urban Development Management at Delft University of Technology and Principal Investigator at the Institute for Advanced Metropolitan Solutions (AMS) in Amsterdam, the Netherlands.

Vogelpohl, Thomas is a trained Political Scientist, who works as free-lance researcher in Berlin.

Abbreviations

ABEA	Association of Bulgarian Energy Agencies
ABIEC	Association of Big Industrial Consumers
ACP	Africa, Caribbean and Pacific
ADEME	French Agency for the Environment and Energy Management
AEEP	Africa-EU Energy Partnership
ANRE	Romanian Energy Regulatory Authority
APER	Associazione Produttori di Energia da fonti Rinnovabili
APRB	Romanian Biofuels Producers' Association
ARBIO	Romanian Association of Biomass and Biogas
BGWEA	Bulgarian Wind Energy Association
BMF	Federal Ministry of Finance
CA-RES	Concerted Action on the Renewable Energy Sources Directive
CAP	Common Agriculture Policy
CEP	Climate and Energy Package
CGB	General Confederation of Beetroot Producers
CHP	Combined Heat and Power
CIP	Interministerial committee for prices
CLER	Comité de Liaison des Energies Renouvelables
CO ₂	Carbon dioxide
COP15	15 th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change
CSP	Concentrated Solar Power
CSP	European Commission- Mozambique Country Strategy Paper
DG	Directorate General
DG TREN	Directorate General Energy and Transport
DGEMP	Direction Générale de l'Énergie et des matières Premières
DLR	German Aerospace Center
EBB	European Biodiesel Board
EC	European Community

ECCP	European Climate Change Programme
ECJ	European Court of Justice
ECOFIN	Economic and Financial Affairs Council
ECSC	European Coal and Steel Community
ECT	Energy Community Treaty
EDCs	Electricity Distribution Companies
EdF	Electricité de France
EDF	European Development Fund
EEA	European Environmental Agency
EEG	Renewable Energy Sources Act
EIA	Environmental Impact Assessment
ENEL	Ente Nazionale per l'Energia Elettrica
ENGO	Environmental Non Governmental Organization
EP	European Parliament
EPA	Interim Economic Partnership Agreement
EREC	European Renewable Energy Council
EREF	European Renewable Energies Foundation
ERSA	Energy from Renewable Sources Act
ESO	Electricity System Operator
ETS	Emission Trading Scheme
EU	European Union
EUEI	European Union Energy Initiative
EUEI-PDF	Energy Facility and the Partnership Dialogue Facility of the EU Energy Initiative
Euratom	European Atomic Energy Community
FEE	France Energie Eolienne
FITs	Feed-In Tariffs
FNE	France Nature Environment
FNSEA	Fédération Nationale des Syndicats d'Exploitants Agricole
FQD	Fuel Quality Directive
GBS	General Budget Support
GCs	Green Certificates

GD	Government Decision
GDP	Gross domestic product
GHG	Greenhouse gases
GMOs	Genetically Modified Organisms
GOs	Guarantees of Origin
GRTN	Gestore Rete Trasmissione Nazionale
GSE	Gestione Sistema Elettrico
GW	Gigawatts
GWh	Gigawatts per hour
HPPs	Hydro power plants
IEE	Intelligent Energy Europe Programme
IEM	Internal Energy Market
IFP	Institut Francais du Pétrole
ILUC	Indirect Land Use Change
IPCC	Intergovernmental Panel on Climate Change
IPPs	Independent Power Producers
Ktoe	Kilotonnes of oil equivalent
KW	Kilowatts
LPG	Liquefied Petroleum Gas
MBSF	Mozambique Biofuel Sustainability Framework
MEP	Scheme on Environmental Quality of Electricity Production
MENA	Middle East and North Africa
MPC	Mediterranean Partner Countries
MPs	Members of the Parliament
MSP	Mediterranean Solar Plan
Mtoe	Million tons of oil equivalent
MW	Megawatts
MWh	Megawatts per hour
NAP	National Action Plan
NBPS	National Biofuels Policy and Strategy
NEK	National Electricity Company

NFFO	Non-Fossil Fuel Obligation
NGO	Non-Governmental Organization
NIMBY	Not-In-My-Backyard
NOAH	Danish Arm of Friends of the Earth
NREAP	National Renewable Energy Action Plan
OMC	Open Method of Coordination
OPCOM	Electricity Market operator
PEN	National Energy Plan
PGE	Polish Energy Group
PJ	Quadrillion Joules
PPM	Process and Production Methods
PSD	Social Democratic Party
PSL	Polish People's Party
PV	Photovoltaic
RAC	Réseau Action Climate France
RAESBA	Renewable and Alternative Energy Sources and Biofuels Act
RECP	Africa-EU Renewable Energy Cooperation Program
RECS	Renewable Energy Certificate System
RED	Renewable Energy Directive
REFUREC	Renewable Fuels Regulators Club
RES	Renewable Energy Sources
RES-E	Renewable Energy Sources for Electricity
RES-T	Renewable Energy Sources in Transport
R&D	Research and Development
RO	Renewable Obligation
RTFO	Renewable Transport Fuel Obligation
RWEA	Romanian Wind Energy Association
SADC	Southern Africa Development Community
SBS	Sector Budget Support
SDE	Sustainable Energy Production
SER	Syndicat des Energies Renouvelables

SEWRC	State Energy and Water Regulatory Commission
SMEs	Small and Medium-Sized Enterprises
TFEU	Treaty on the Functioning of the European Union
TGAP	Taxé Générale sur les Activités Polluantes
TGCs	Tradable Green Certificates
TIPP	Taxé Intérieur sur les Produits Pétroliers
TREC	Trans-Mediterranean Renewable Energy Cooperation Network
TSO	Transmission Systems Operator
UfM	Union for the Mediterranean
UK	United Kingdom
UN	United Nations
WTO	World Trade Organization
WWF	World Wild Fund for Nature
WWII	World War II

Foreword

For nearly two decades, culminating in the European Council Conclusions of March 2007, when the 20-20-20-targets were agreed, the European Union (EU) was rightly considered to be a frontrunner and a role model of sustainable energy policies and particularly of renewable energy sources (RES) development and deployment. But only a few years after the enabling legislation of the 20-20-20-package entered into force, the meeting of the European Council on 23 October 2014 was widely described as a turning point. The EU has at the least renounced its position as a leader in global RES development, if not changed from frontrunner to laggard. But it is also true that the Council Conclusions will not stop development of RES in Europe – that is no longer possible, due to immense learning curves and cost decreases in the last few years, and due to the significant contributions of RES to economic growth and to the security of energy supply in Europe. But implementing the 2030 targets will, however, significantly slow down RES development in Europe, while the rest of the world is at the point of starting and accelerating growth of RES, as well as ambitious enabling policies and frameworks. Word is out that Europe might risk losing a flourishing and future oriented industry. How could this dramatic change happen after only seven years?

It all started – or rather it became obvious – back in the early 1990s. After years of research and development (R&D) programs, a tipping point seemed to be approaching in the mid-nineties. The European Commission's Green Paper of 1996, the White Paper of 1997, the Campaign for Take-off starting in 1999, the renewables electricity directive of 2001, the energy performance of buildings directive of 2002 and the biofuels directive of 2003 were major milestones of a focused development of policies for RES. In 1997 EU targets for RES were set for the first time. They

were only indicative and not legally binding for the member states. But member states were obliged to set their own national targets, in line with the overall level of ambition of the EU. Despite the voluntary character of the targets the discussions around new technologies were controversial and some claimed they were too expensive and could never provide a relevant contribution to Europe's energy supply and to greenhouse gas (GHG) reduction. These arguments had some impact, particularly because climate change and resulting needs for GHG reduction were considered to be the main drivers for RES. Their economic and job creation potential as well their crucial role for security of energy supply were not yet in the focus of the European agenda.

Discussions about the future of climate and energy policies in Europe continued. With the two directives for electricity and for biofuels in place, it was obvious that the heating and cooling sector was the missing link. Half of the EU's energy is consumed in this sector, but no relevant policies were in place to introduce RES in the building sector. A new consensus evolved that a heating and cooling directive was needed. A share of 25 percent RES by 2020 soon emerged as a reasonable target - uniting a majority of the European Parliament and the European RES sector. A wide consensus had developed that enabling policies should be further developed and adapted so that growth of RES could be truly efficient all over Europe. The good reasons for RES had become overwhelming.

RES development was not easy to compare between the different EU member states. Whereas in Germany, due to the very effective and efficient Feed-In Tariffs (FITs), most of the investment in RES was done by private individuals, small and medium companies and farmers, in other countries, for example Spain, the incumbent utilities themselves invested heavily in RES. Consequently, the share of small and decentralized RES is much smaller there than it is in Germany and in Denmark, Austria and some others. Yet other countries, like the United Kingdom (UK),

actually limited the deployment of RES by means of policies from which only large players could benefit and which resulted in much higher costs than FITs. Administrative barriers and the Not-In-My-Backyard (NIMBY) syndrome added to the unsatisfactory picture.

When 2010 was approaching, it became evident that the degree of target compliance was very different in the different member states. Therefore another lesson evolved from the deficits of the 2010 legislation. It was widely agreed that binding targets together with clear policies and regular monitoring would be more effective than just indicative ones. Although publicly blaming and shaming did have some impact resulting in policy improvements, the lack of penalization was broadly seen as a major obstacle – together with a continued existence of administrative barriers and the absence of a level playing field for RES in distorted energy markets. This is why the introduction of binding national targets for the share of RES in 2020 was high on the RES sector's agenda. In parallel, there was a discussion about whether or not a RES target for the EU (of 20 percent in 2020) should be broken down into sectoral targets for heating and cooling and for transport.

Driven by the positive attitude towards RES all over Europe, in March 2007, the European Council eventually agreed – in the wider context of a climate and energy package – on a binding European 2020 target of at least 20 percent RES in gross final energy consumption, underpinned by differentiated binding national targets for each member state and a minimum share of at least 10 percent RES in the transport sector of every member state and the EU as a whole. The agreement was celebrated as a landmark decision for RES development. Enacted in the renewable energy directive (RED) of 2009, which for the first time comprises all three sectors – electricity, heating and cooling, and transport – the trajectory and the policy choices for the EU and for each member

state were clearly set. The evaluation of the 27 National Renewable Energy Plans (NREAPs), submitted in 2010, indicated that the 20 percent target may even be exceeded in 2020.

The 2020 climate and energy package included the settlement of a long discussed question: will the support mechanisms for RES in the EU be harmonized or will it be up to the member states to design their own frameworks, including the right to limit support to domestic production? The consensus between European Parliament and European Council was explicitly entered into the RED: member states are responsible for reaching their national targets. Therefore they must have the right to design and restrict their national support mechanisms. They may, however, on a voluntary basis cooperate with neighbors and with third countries in order to achieve their targets more effectively or at lower costs. Although it is always useful to learn from good practice elsewhere, this agreement was necessary due to various degrees of market transparency and accessibility in the different member states. Despite the fact that the final provisions of the RED explicitly hold that the member states' right to define their national support schemes must not be affected by any revision of the directive up to 2020, it is not really surprising that this consensus has been disputed from the very beginning – by those who never wanted it and by those who realized later that effective national support schemes tend to bring in new market players and thus facilitate effective competition with incumbent utilities and their assets.

Since the RED entered into force in 2010, a lot has happened. RES continues to grow in many member states and even more so worldwide. Growth rates of wind and solar photovoltaic (PV) installations in China, for example, have been outpacing European development for the last few years. Onshore wind experienced smooth but regular cost decreases over the last decade and is more than cost competitive with new conventional power plants today. Solar PV prices and costs have decreased at unprecedented rates since the coincidental occurrence of the global financial and

economic crisis and massive overcapacities for panel production have slashed costs below grid parity in an increasing number of countries around the world. In recent years, PV, particularly decentralized rooftop installation, has grown much faster than expected and is outpacing wind power in several markets, including Germany. The massive growth of PV in recent years and continued growth of wind power over more than a decade has led the energy system towards another tipping point – the need for system change not only in the power grids, but increasingly integrating heating and cooling and transport for mutual balancing. In parallel, energy markets need to be redesigned in order to provide the necessary signals for deployment of variable wind and solar power and of flexibility services including storage, power-to-gas, power-to-heat, grid extension, demand shift and various other requirements of a modern, RES based sustainable and secure energy system.

On this background, the European Council of October 2014 had planned to take the necessary decisions to pave the way for a safe and sustainable energy supply in Europe until and beyond 2030. In the preparation phase of the Council Conclusions, particularly those stakeholders or member states which are closely linked to the incumbent fossil and nuclear energy system have asked for low levels of ambition, no 2030 targets at all, or for only a GHG reduction target. Allegedly, the GHG only target would be the most effective way to deliver on GHG reduction by leaving the energy mix – including fossil and nuclear – to the member states. Although this was obviously an attempt to undermine effective growth of RES, the Council Conclusions followed this path. As a result, the Conclusions were not ambitious enough by far to meet the challenges of a sustainable energy system based on RES and in line with the needs of climate protection and safe and affordable energy supply – particularly after the Paris Agreement.

The target level of the 2030 climate and energy framework is disappointing. 40 percent GHG reduction by 2030 compared to 1990 is not a really meaningful contribution to the target of limiting global warming to a maximum of 2°C compared to pre-industrial times – and even less can it be considered sufficient when it comes to implementing a 1.5°-target, as the Paris Agreement is calling for. The 27 percent targets for RES and for energy efficiency are hardly more than business as usual. 27 percent RES by 2030 would translate into reducing the average annual growth rate of renewables to 1.1 percent from 2020 to 2030 (after more than 6 percent from 2010 to 2020). Renouncing from binding national targets after 2020 is weakening the implementation of the 2020 targets.

The European Council – though dressed up by ambitious language – has surrendered to the opponents of climate protection. Meaningful reforms of the emissions trading system (ETS), which might have provided a little chance to deliver a carbon price that would make investment in fossil fuels unprofitable, were postponed to far beyond 2020. And it was agreed that member states can decide to largely renounce from supporting RES as long as others fill the gap to deliver the 27 percent in 2030. This is particularly problematic, because it allows member states to return to coal use or to try building new nuclear power plants, until they eventually find out that it is unaffordable or unsafe enough or both – even more so, since the European Commission has decided to allow state aid for nuclear power in the UK. All this will reduce investment in RES and energy efficiency and thus prevent timely and effective decarbonisation of the energy sector. This is why it is extremely important to assure that the post-2020 framework for energy and climate policies in the EU starts with achieving the 2020 targets instead of weakening or reducing them in the upcoming new legislative packages.

Since the October 2014 Council Conclusions, some movement has taken place. The Energy Union Strategy has been further developed, trying to encompass all EU energy policies under this umbrella. And political pressure to change support schemes for renewable electricity from FITs systems to tendering systems as the new normal has significantly increased. Ignoring negative experiences around the world (cost increases and regulatory uncertainty), the European Commission is trying to enforce tendering and certificates, where FITs and premiums have been very successful. Unfortunately, member states – including Germany – seem to be supporting this U-turn in support policies. A positive aspect of the Energy Union strategy is the objective of tackling the energy market design and transforming it for the benefit of variable RES and a wide range of decentralizes RES producers and consumers (prosumers). Successfully agreeing on a market design, which favours flexibility and penalizes inflexibility and carbon emissions, could have a strong positive impact on further progress of the transition towards a RES based energy system.

This book contains key information for understanding the development of the EU's renewable energy policy, which was – until the 2014 Conclusions of the European Council – among the most ambitious frameworks world-wide for facilitating the transition towards a sustainable energy system. The authors provide key national case studies for understanding how member states – based on their own policy priorities – have shaped the EU framework and the present debates. The book addresses policy development in key member states, with case studies from all major sides of the present debates – longstanding and very recent EU members, northern and southern countries, traditional and new frontrunners of RES, notorious nuclear supporters and also coal addicted countries. The book also tackles interaction between domestic and European

levels and the resulting dynamics of policy diffusion across Europe. Finally, an analysis of the external dimension of the EU renewable energy policy is also included.

Rainer Hinrichs-Rahlwes

Preface

The transformation of energy systems towards a greater incorporation of renewable energy sources (RES) is one of the most impressive examples of political and economic change in Europe of the past decades. Since the late 1980s, European Union (EU) member states from North to South and from West to East have dramatically increased the share of RES in their domestic energy mixes. Today, and despite a considerable slowdown since the beginning of the 2010s, the EU is a global leader in renewable energy policy and is widely seen as a proof that the necessary transformation towards a carbon-free energy supply is no longer a utopia. But how did this policy change in the EU and its member states come about? Who were the leading actors, what were the underlying causal mechanisms and how did the unique structure of the European multi-level polity contribute to this outcome? These questions stand at the core of the present book. By systematically comparing the development of renewable energy policies in the electricity and transport sectors in ten EU member states from the 1980s to the present day, we seek to shed light on the complex dynamics of RES promotion in the European multi-level system. The comparative analysis is guided by a common analytical framework that conceptualizes policy change in the EU as a mix of bottom-up, top-down and horizontal interactions between a wide range of actors at the European level and in the member states. It is complemented by a view of the external dimension of RES promotion in the EU, that is, the ways in which the EU and its member states have an impact on renewable energy policies in non-EU countries.

The book is the result of a long and collaborative effort. It started in 2011 when Israel Solorio and Mischa Bechberger met in Barcelona and decided to join forces to carry out research

on this topic. In March 2013 they started to develop a book proposal on a guide to EU renewable energy policy. In Summer 2013 Helge Jörgens joined the book project when Israel came to the Environmental Policy Research Centre (FFU) of the Freie Universität Berlin for a two-year stay as a post-doctoral visiting scholar funded by the Secretary of Science, Technology and Innovation of the Mexico City Government. In May 2014, Israel, Helge and Mischa organized an authors' workshop where first drafts of the analytical framework as well as the case studies were presented and thoroughly discussed. The workshop resulted in a thorough revision of the chapters, followed by a new round of comments by the editors.

In the midst of this process, Mischa took up a new job at GIZ (Deutsche Gesellschaft für International Zusammenarbeit) and decided to step back as co-editor of the book. Shortly after, in summer 2015, both Israel and Helge left Berlin. While Israel took up his new position as Associate Professor of Public Administration at the National Autonomous University of Mexico, Helge headed for Lisbon for a two-year sabbatical leave and a position as visiting professor at ISCTE-Instituto Universitário de Lisboa. At the same time, major developments in the field of climate and renewable energy policy occurred – both at the international level (i.e. the Paris climate summit in December 2015) and at the EU level (e.g. the 2030 Climate and Energy Framework and the revision of the Renewable Energy Directive) – that had to be included in the analysis. Also the Brexit decision had to be taken into account, especially considering the relevant role that Britain has played in shaping this policy. While all this led to a delay in finalizing the manuscript, the timing of its publication couldn't be any better. At the time this book is published, renewable energy policy in Europe is at a crossroads. The almost unconditional support to electricity from RES (RES-E) as well as to biofuels has given way to a more sceptical view of the associated costs and Europe's chances of 'going it alone' in the

transformation of energy systems. Both developments – the EU-wide surge of EU renewable energy policy as well as first signs of their dismantling – are reflected in our analysis. At a crucial moment in time for this policy, this book provides an informed and empirically rich reflection on where we are in renewable energy policy, how we got here, and where to go from here.

This work wouldn't have been possible without the support and engagement of many persons and organizations. Above all, we want to express our gratitude to the authors of the fifteen chapters of this book. Their engagement, their patience and especially their willingness to repeatedly revise and update their chapters in what may easily be one of the most dynamic policy domains in EU policy-making were essential for the successful completion of this book. Our thanks also go to the Department of Political and Social Sciences of the Freie Universität Berlin and the FFU who provided Israel Solorio with the infrastructure and working space necessary to conduct this research. In particular, we would like to thank the director of the FFU, Miranda Schreurs, for supporting this project from its very beginning. The Fritz-Thyssen Foundation generously supported the authors' workshop that took place at Freie Universität Berlin on 9th May 2014. We thank Oriol Costa, Christian Hey, Kirsten Jörgensen and Kerstin Tews, Severin Fischer and the other participants of the workshop for their valuable comments, criticism and contributions. Discussions on how to bring the chapters of this book up to date were held in the framework of the Academic Association for Contemporary European Studies (UACES) 2014 Annual Conference in Cork and 2015 in Bilbao. Essential for this undertaking were the panels organized by the UACES Collaborative Research Network on the European Energy Policy. Cate Mackay, Erica Callery and Mel Eyeons did a great job in terms of language editing before the manuscript's final submission. Sofia Fuentes and Carla Covarrubias provided an invaluable

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Helge Jörgens, Israel Solorio and Mischa Bechberger

October 2016

1. The EU and the promotion of renewable energy – An analytical framework

Helge Jörgens and Israel Solorio

1.1 Why the EU renewable energy policy?

There are several reasons why the promotion of renewable energy sources (RES) has ranked high among the priorities of the European Union (EU) in the field of energy policy, including a broad range of political, economic and environmental factors. Yet, perhaps the single most important reason why the EU has become a global forerunner in the promotion of RES relates to EU's institutional structure and the resulting nature of its energy policy. On the one hand, since a formal competence in the field of energy policy was not given to the EU until the Treaty of Lisbon in 2009 (Morata and Solorio, 2012), for years the European 'policy-makers borrowed legal competence from economic and environmental parts of the EU treaties in order to justify proposing and passing energy measures' (Buchan, 2009, p. 7). In particular, environmental policy-making provided an effective basis for EU programs and policies in the field of energy policy and a potent channel for increasing the EU's influence on the energy policies of its member states (Tosun and Solorio, 2011). Against this backdrop, RES promotion, together with the promotion of energy efficiency and savings, was an almost natural choice for the EU in order to increase its overall influence in the energy policy field (Morata and Solorio, 2012). On the other hand, since the 1970s, the idea of a 'Green Europe' has gradually turned into one of

the normative foundations of the EU (Lenschow and Sprungk, 2010, p. 134). A recent expression of the EU's self-perception as an ecological forerunner is its aspiration to become a global leader in climate change policy (Wurzel and Connelly, 2011). Within this strategy, RES promotion became a flagship component of the EU's energy policy (Knudsen, 2012).

Today, RES promotion continues the important role that energy issues have played throughout the historical process of European integration. However, while the European Coal and Steel Community (ECSC) in 1951 and the European Atomic Energy Community (Euratom) in 1957 were both founding pillars of what is nowadays known as the EU (Matlár, 1997, p. 14), today none of these institutions constitute core elements of the EU's energy policy. The ECSC expired in 2002, whereas the Euratom remains as a 'separate legal entity' from that of the Treaty on the Functioning of the European Union (TFEU) (Barnes, 2013, p. 106). Conversely, RES promotion appeared on the agenda back in the 1970's together with efforts of the European Commission to invigorate cooperation in the energy field after the oil crisis (see Chapter 2 by Solorio and Bocquillon on the history of EU renewable energy policy). Ever since then, it has figured prominently on the EU's policy agenda.

But RES promotion, as well as energy policy as a whole, has become increasingly politicized in the EU over the past years (Tosun et al., 2015). In an EU obsessed with recovering the vigour and competitiveness of its economy, RES promotion is persistently being contested, both at the European level and within the member states. The October 2014 European Council's discussions on the climate and energy targets for 2030 were illustrative of this turn. While during the negotiations of the 2009 Climate and Energy Package there was a broad consensus among member states on the need of having binding national targets for RES

promotion for 2020, this time the agreement was reduced to a global RES target for the EU as a whole (see Chapter 2 by Solorio and Bocquillon). The EU is generally considered as a world leader on RES promotion. However, for many critics, recent developments concerning the 2030 goals place in risk this position together with the European 'greenness' (see the Foreword by Hinrichs-Rahlwes).

This book proposes to be a guide for understanding the EU renewable energy policy, understood as *the set of policy instruments developed at the European level to promote RES between the member states, including instruments of regional policy, research and development programs and market and environmental measures*. In particular, we are interested in shedding light on the complex interplay of domestic and European drivers of policy change in the promotion of RES in the fields of electricity (RES-E) and transport (biofuels). How do actors, institutions, and policies at the supranational, national, and local level affect each other, resulting in a European multi-level regime for the promotion of RES? What role do processes of top-down, bottom-up and horizontal Europeanization play and how do they interact? Although the policies of RES promotion in the EU have received considerable attention in the literature, in particular by scholars in the fields of European studies, environmental policy and energy policy (e.g. Mez, 2007; Jacobs, 2012; Boasson and Wettestad, 2013), we still lack a thorough understanding of the interplay of policy-making at the European level and in the member states (or even the countries in the EU's neighbourhood).

Against this backdrop, the objective of this book is to present a detailed and updated picture of what the EU renewable energy policy is, how it evolved, and how it interacts with the domestic policies of its member states. The book compares the development of RES policies in

10 EU member states (Bulgaria, Denmark, France, Germany, Italy, the Netherlands, Poland, Romania, Spain, and the UK) as well as in selected non-EU countries and explores how they interact with RES policy-making at the EU level. We apply a common analytical framework that draws on the Europeanization literature as well as on concepts and findings from the literature on policy diffusion, thereby following the ‘European’ route to the study of national politics and policies (Vink and Graziano, 2007, p. 4). Focusing on the whole EU policy cycle, the chapters in this book aim to understand how member states have shaped the EU’s renewable energy policy, how EU policies have affected policymaking at the national level, how policies and instruments adopted at the national level have diffused between member states, and how and why the position of the member states towards an EU-wide harmonization of renewable energy policies have changed over time. This picture is completed by an analysis of the external dimension of the EU renewable energy policy, both for RES-E and biofuels. In sum, this book aims to provide a comprehensive and multi-faceted understanding of the EU renewable energy policy as one of the longest and most ambitious attempts world-wide to facilitate the transition towards a more sustainable energy system.

1.2 Renewable energy and the Europeanization of energy policy

In order to study renewable energy policy in the EU and to untangle the complex policy process that surround it, we draw on the Europeanization framework as our principal analytical tool.

Adopting a Europeanization perspective will allow us to put emphasis not only on the domestic drivers of national policy change, but also on the (sometimes neglected) role of the EU in RES promotion. It also directs our analytical focus to the ‘interactive process’ of EU policy making

(Radaelli, 2004), characterized by an interdependent mix of uploading, downloading and cross-loading of policies and programs between the European and the national levels and across EU member states (Bulmer and Radaelli, 2004; Bache and Jordan, 2006). In order to adequately account for the multiplicity of factors that drive policy change in the European multi-level polity, we distinguish between three types of Europeanization – bottom-up, top-down, and horizontal – all of which prove to be relevant in some countries or at some point in time. Thus, by adding a horizontal dimension, our analytical framework goes beyond concepts of Europeanization as a ‘two-way process’ where ‘member state governments both shape European policy outcomes [‘bottom-up’] and adapt to them [‘top-down’]’ (Börzel, 2002, pp. 193-194). Horizontal Europeanization, that is, the direct diffusion or transfer of policies from one EU member state to another in the shadow of potential EU-wide harmonization, has received only marginal attention in the Europeanization literature (see for example Bomberg and Petersen, 2000; Liefferink and Jordan, 2004). However, in the energy policy domain, where the EU has only limited competences, we argue that it might play an important role.

The following section presents in more detail the three forms of Europeanization and their relationship to the EU renewable energy policy and integrate them into the analytical framework that will guide the empirical chapters of the book. Table 1.1 gives an overview of the different types of Europeanization, their underlying causal mechanisms, as well as their potential outcomes.

***** Place Table 1.1 about here *****

1.2.1 Bottom-up Europeanization

Arguably, ‘bottom-up’ Europeanization is the point where the European policy cycle starts. It describes how policies or institutions are initially formed at the European level (Vink and Graziano, 2007, p. 9), how European norms, rules, and practices evolve over time (Börzel, 2002, p. 193). Bottom-up Europeanization focuses on the influence of member states in the formulation of policies at the EU level (Radaelli, 2004). Member state governments are the single most important group of actors in the process of EU policy-making – either directly in the Council of Ministers or indirectly by setting the terms under which power is delegated to the supranational bodies of the EU. Thus, ultimately, it is the member states who decide whether to adopt new EU legislation or not. Accordingly, Bulmer and Radaelli (2004) refer to this kind of Europeanization as ‘governance by negotiation’, where the member state executives hold a key position in the decision-making process (Börzel, 2002, p. 195).

In processes of bottom-up Europeanization – or, as Börzel (2002) terms it, the ‘uploading’ of domestic policies and institutions to the EU level – individual member states may become disproportionately influential in the formulation and adoption of EU policies. The mechanism of bottom-up Europeanization has been thoroughly explored in the literature on the role, influence and strategies of environmental forerunner states (Andersen and Liefferink, 1997; Liefferink and Andersen, 1998). In general terms, this literature on leaders (as well as laggards) assumes a rational behaviour on the part of the member states. For example, Börzel (2002) argues that member states’ ‘responses to Europeanization are shaped, firstly, by their policy preferences and, secondly, by their action capacities’ (Börzel, 2002, p. 196). Specific focus has been placed on

member states that take on the role of forerunners or pioneers. A forerunner can be defined ‘as a member state which is “ahead” of EU environmental policy in the sense of having developed more advanced policies’ (Liefferink and Andersen, 1998, p. 256). Liefferink and Andersen consider that one of the main drivers for EU member states to become pioneers in environmental policymaking and subsequently try to upload their ambitious policies to the European level is to avoid competitive disadvantages for their industry (Liefferink and Andersen, 1998, p. 254).

An important attempt to identify the strategies used by environmental pioneers to shape policies at the EU level was made by Liefferink and Andersen (1998, p. 256) who distinguished the roles of pusher by example, defensive forerunner, constructive pusher and opt-outer. Building on this work, Börzel (2002) identified three typical ways in which member states responded to Europeanization. The first strategy, *pace-setting*, is about pushing those policies at the European level that reflect a member state’s policy preferences in order to minimize the subsequent implementation costs. For some time, this strategy was used mainly by the classic 'green' member states (Germany, Denmark, Netherlands, Sweden, Finland and Austria) (Liefferink and Andersen, 1998). The second strategy, *foot-dragging*, consists of blocking or delaying costly policies in an effort to prevent them altogether or at least achieve some compensation for the expected implementation costs. Blocking the adoption of stricter EU (environmental) law is often considered to be a 'southern problem' (Börzel, 2000). Finally, with less pronounced policy preferences, member states are likely to take a neutral stance in the European policy process. This third strategy is known as *fence-sitting* and includes building tactical coalitions with both pace-setters and foot-draggers (Börzel, 2002). All in all, as Tosun et al. (2015) argue, the bottom-up perspective of Europeanization research provides a good explanation for how the EU policy-makers’ agendas are shaped, namely by (influential) member states and their respective

preferences.

1.2.2 Top-down Europeanization

While bottom-up Europeanization relates to the ways in which EU member states shape European policies, institutions, and laws, top-down Europeanization relates to the implementation or the impact of these EU policies at the domestic level of the member states. Given that the adoption and implementation (or non-implementation) of EU directives is easily observable, top-down Europeanization occupies a central place in most of the Europeanization literature. This kind of Europeanization occurs where ‘the supranational institutions have a considerable amount of power delegated to them’ (Bulmer and Radaelli, 2004, p. 5) and it provides a useful analytical tool to study how Europe and the EU matter (Börzel and Risse, 2000). But, as Caporaso argues, the ‘route from Brussels to member states is not a straight line’ (Caporaso, 2007, p. 30) as ‘the domestic outcomes feed back into the process of Europeanization’ (Caporaso, 2007, p. 27). Therefore, in order to understand the domestic change produced by top-down Europeanization, it is necessary to understand how it interacts with a variety of domestic factors.

Knill and Lehmkuhl’s (1999) typology of Europeanization mechanisms is a useful guide for understanding the variety of impulses generated by the EU from above. According to the authors, EU policies and programs create adaptational pressures that span from (1) the prescription of concrete institutional and governance models to (2) altering opportunity structures at the domestic level and (3) promoting changes in the beliefs and expectations of the domestic actors in order to gain support for the reforms promoted by the EU (Knill and

Lehmkuhl, 1999, 2002). In this sense, it might be considered that very often a European directive includes more than one of these Europeanization mechanisms.

Most of the top-down Europeanization literature has emphasized the role of the prescription of concrete regulatory or institutional models. Here, the degree of fit or misfit between policies or institutions at the European level and those at the level of individual member states creates adaptational pressures which in turn affect the degree of domestic policy change (Risse et al., 2001, p. 7). Börzel and Risse (2000, p. 5) argue that ‘adaptational pressures are generated by the fact that the emerging European polity encompasses structures of authoritative decision-making which might clash with national structures of policy-making’. In this case, whether change at the national level will occur depends on the existence of a prior misfit as the explanatory factor for policy change. However, empirical evidence suggests that European policies may lead to domestic policy change even in cases of ‘complete congruence between European and domestic policy and institutional arrangements’ (Knill and Lehmkuhl, 2002, pp. 256-257). Bulmer and Radaelli (2004, p. 9) contend that the misfit or ‘goodness of fit’ argument ‘is valid only under certain conditions’; namely, when there is a presence of EU policy templates or models. In fact, the EU renewable energy policy is a case where the misfit is practically non-existent because of a lack of a harmonized support scheme model (see Chapter 2 by Solorio and Bocquillon). Therefore, the challenge in this context is to investigate whether and how Europeanization can be possible even without the misfit element.

The second mechanism identified by Knill and Lehmkuhl, altering domestic opportunity structures, refers primarily to a change in the distribution of power and resources between actor coalitions caused by European policy-making (Knill and Lehmkuhl, 2002, p. 268).

Europeanization challenges existing ‘institutional equilibria’ by strengthening a coalition of

domestic actors that supports the reforms intended by the EU (Knill and Lehmkuhl, 1999, p. 2). This mechanism of Europeanization can be deployed either by market-making or by market-correcting policies (Bulmer and Radaelli, 2004, p. 6). In the first case, it is more about policies *allowing* the *entrance* of RES into national markets (e.g. by removing physical barriers for RES-E such as the connection to the grid). In the second, it is more about *improving the competitiveness* of RES in the energy markets (e.g. by means of financing research and development programmes for RES). The promotion of RES could be considered to be market-correcting as RES are perceived as a means of correcting the negative environmental externalities produced by the EU's energy sector (Knudsen, 2012). Owing to the unfinished liberalization process of the Internal Energy Market (IEM), dominant economic actors within the sector, such as electricity utilities, are also expected to play a key role for the success or failure of policy change regarding RES promotion in the EU (Boasson and Wettestad, 2013, p. 79). Therefore, while the EU renewable energy policy may play an important role in redistributing the power and resources between actor coalitions, the case studies will also analyse the impact of the liberalization of energy markets in the EU on the composition and relative power of the opposing actor coalitions in RES policymaking.

The third mechanism, EU-triggered changes in the beliefs of domestic actors, is the least hierarchical but the most fundamental Europeanization mechanism. This mechanism is about consensus-building, but this time by means of an EU-induced change in the 'cognitive input' of the domestic actors (Knill and Lehmkuhl, 2002, p.262). It might be complementary to the mechanism of altering opportunity structures at the domestic level since both are oriented towards building support for domestic reforms. By changing the beliefs and expectations of the domestic actors, Europeanization may, for example, overcome persistent institutional veto points

at the national level.

For the national case studies, it is crucial to look at the responses of three key actors to developments at the European level: RES producers, Environmental Non-Governmental Organizations (ENGOS) and traditional (and often still dominant) corporations and organizations in the sector such as the big electricity utilities. Given the 'packaging' of the EU renewable energy policy as a 'green' policy (Tosun and Solorio, 2011; Morata and Solorio, 2012), it would be expected that for both cases, RES-E and biofuels, the coalition supporting EU reforms should comprise RES producers and ENGOS (Solorio and Popartan, 2014). Such a coalition would be expected to act as a 'change agent', attempting to persuade other domestic actors to become more supportive of the promotion of RES (Börzel and Risse, 2000, p. 9). Conversely, we would expect traditional dominant actors of the sector such as the big electricity utilities to act as veto players against the changes promoted by or through Brussels.

Ideally, Europeanization would lead to the acceptance of the policy in question, leading to a series of policy changes that, in this case, would facilitate a major penetration of RES into the national electricity and transport sectors. In other words, successful Europeanization should lead to some degree of domestic change towards policy models propagated at the EU level (Börzel and Risse, 2000, p. 10). However, there may be cases where Europeanization does not lead to any changes at all or can even have the paradoxical effect of national policies becoming less European than before (Radaelli, 2000). The first reaction is known as inertia, while the latter is defined as retrenchment, occurring when there is a widely shared negative perception of EU policies (Börzel and Risse, 2000). In this scenario, Europeanization may trigger domestic opposition to the policy in question. Consequently, one of the core concerns of this book and of the individual case studies is to assess whether or not Europeanization has actually led to the

desired policy changes at the domestic level.

1.2.3 Horizontal Europeanization

Horizontal Europeanization refers to the direct diffusion or transfer of policies from one EU member state to another, within and affected by the institutional, political and discursive context of the EU. While bottom-up and top-down Europeanization have been studied for many years, concepts of *horizontal Europeanization* constitute a more recent strand in the EU literature. Its starting point was an increased scholarly interest in policy areas where the legislative competencies of the EU are limited or where intergovernmental agreement in the Council of Ministers has been difficult or even impossible to achieve. This focus has brought alternative or less direct forms of Europeanization to the front. The EU's Open Method of Coordination (OMC) is the most prominent of these mechanisms of *horizontal* rather than *top-down* Europeanization (see for example, Büchs, 2007; Lodge, 2007; Nedergard, 2007; Zohlnhöfer and Ostheim, 2007). Although horizontal Europeanization works in the absence of binding supranational law or in issue areas where the adaptational pressures emanating from the EU are rather limited, it nevertheless may lead to policy change or even to a convergence of domestic policies towards the goals of the EU (Bulmer and Radaelli, 2004). In contrast to the vertical mechanisms of top-down Europeanization, it is based on a decentralized, voluntary, and information-based process of horizontal cross-fertilization of ideas and policies between EU member states. It typically results in a process of voluntary convergence towards common policy goals which may be loosely coordinated by European institutions as in the case of the OMC, but which may just as well emerge from uncoordinated processes of bilateral imitation and learning

between member states.

Being relatively new to the Europeanization literature, the concept of horizontal Europeanization builds on a body of empirical research from comparative politics and international relations which shows that growing economic and political interdependence leads national governments to increasingly orient their domestic policy choices towards the previous choices of other governments. These processes, often labelled as processes of ‘policy diffusion’, ‘horizontal policy learning’ or ‘policy transfer’ have received growing attention in recent years (Jörgens et al., 2014; Busch and Jörgens, 2012a, 2012b; Holzinger et al., 2008; Simmons et al., 2008; Bulmer and Padgett, 2005; Simmons and Elkins, 2004). One of the core findings of this literature is that ‘the mutual adjustment of autonomous states to each other's policy decisions’ (Busch and Jörgens, 2012a, p. 221) often has effects that are very similar to those of binding international agreements or supranational policy-making through EU-directives.

Although a policy diffusion perspective has not yet been systematically incorporated into the study of Europeanization processes, there are some preliminary conceptualizations that our analytical framework can draw upon. In a research note published in 2000, Fritz W. Scharpf argued that ‘mutual adjustment’ between national governments constitutes the ‘default mode of Europeanized policy responses to increasing economic interdependence’. ‘Here, national governments continue to adopt their own policies nationally, but they do so in response to, or anticipation of, the policy choices of other governments’ (Scharpf, 2000, p. 11). Busch and Jörgens (2012b) have substantiated this claim empirically in their study on the diffusion of RES-E policies among EU member states. They find that ‘decentralized and voluntary mechanisms of policy coordination can have effects that are very similar to those of centralized policy-making’ and argue that processes of top-down Europeanization are often accompanied by less visible

processes of bilateral imitation or learning which can best be conceptualized as ‘*horizontal Europeanization*’. In fact, empirical studies show that these processes of decentralized and non-coercive policy diffusion are strongest in ‘highly institutionalized contexts like the EU’ (Busch and Jörgens, 2012b, p. 81; Bulmer and Padgett, 2005). They may occur in the absence of top-down Europeanization, but they may just as well supplement instances of supranational law-making. In the latter case, horizontal Europeanization may manifest itself in a convergence of domestic policies and instruments beyond the concrete goals and measures contained in supranational law.

What are the causal mechanisms underlying processes of policy diffusion? While scholars have identified a large number of potential mechanisms, these can be grouped into three generic categories: (1) (boundedly) rational *learning*, (2) norm-based *imitation*, and (3) economic or political *competition* (Busch and Jörgens, 2012a, pp. 234-235; for a similar categorization see Gilardi, 2012).

Learning occurs when national policymakers search outside national boundaries for effective solutions to domestic problems. The previous policy choices of states which had been confronted with comparable problems may offer valuable clues for their own decisions (Rose, 1991). Especially in complex decision situations, time-pressed policy-makers are more likely to adopt policies already carried out somewhere else than to invent completely new programmes (Karch, 2008). Processes of policy learning can be more or less rational. While learning is always based on the belief that the potential benefits of a policy will outweigh its costs – Mossberger and Wolman (2003) refer to this as a form of ‘prospective policy evaluation’ – the information on which the expected costs and benefits of a policy are calculated are often

insufficient or biased. Consequently, policy learning usually is at best ‘boundedly’ rational (Simmons and Elkins, 2003, p. 282; Weyland, 2007). Learning can be expected to occur mostly with regard to specific policy instruments, for example with regard to the type of instrument used to promote RES. By observing the effectiveness (but also or the negative or unintended consequences) of an existing support scheme, policymakers can draw conclusions about the probable performance of this instrument in their own country. This mechanism of learning through prospective policy evaluation constitutes one of the main drivers of horizontal Europeanization.

The second category of mechanisms, norm-based *imitation*, comprises the different ways in which policy innovations are adopted in order for a country to gain national and international legitimacy. Policy innovations which are highly visible and which represent widely recognized values are particularly suited for symbolic imitation (Braun and Gilardi, 2006). In the area of environmental policy, this mechanism played a central role, for instance, in the worldwide diffusion of ministries of the environment, but also in the spread of sustainable development strategies and the introduction of constitutional clauses on environmental protection (Busch and Jörgens, 2005a; on the diffusion of sustainable development strategies, see also Jörgens 2004). Norm-based imitation also comprises processes of socialization where certain internationally shared norms of appropriate behaviour serve as role models for domestic policymaking (Finnemore and Sikkink, 1998). This process can be expected to occur mainly with regard to the fundamental decision of whether RES should be promoted at all, but also with regard to the level of national RES targets. Norm diffusion can be strengthened when international organizations or transnational actor networks act as norm entrepreneurs by actively trying to persuade governments to adopt certain policies (Keck and Sikkink, 1998).

The third group comprises several mechanisms based on *competition*. In the case of economic competition, states adopt policies that are already in place elsewhere with the strategic aim to preserve or improve their international competitiveness. Mostly this competition is conceived as a race to the bottom, where states alternately lower national standards until a common minimum is reached (Holzinger and Knill, 2005). The most recent national debates about ‘excessive’ RES promotion being a threat to domestic competitiveness could – in the absence of EU wide harmonization, i.e. top-down Europeanization – eventually lead to a race-to-the bottom in the form of a cross-national dismantling of RES quotas or Feed-In-Tariffs. A second mechanism in this group is political competition. Here states struggle to become pioneers or early adapters of a policy innovation so that they can influence international policy developments in accordance with their domestic regulatory traditions and institutional structures, thereby minimizing future political and economic adjustment costs (Heritier et al., 1996). Often, political regulatory competition triggers action by the EU, leading to legal harmonization based on the policies in place in one or several pioneering member states (bottom-up Europeanization). Thus, the boundaries between the mechanisms of horizontal political competition and bottom-up Europeanization are not always sharp and their empirical identification depends largely on the outcome, that is, on whether the cross-national leader-follower-laggard dynamics lead to the adoption of EU policies or not.

In the environmental policy field such processes of diffusion by political competition are found above all in issue areas relevant to the Single European Market (for example packaging waste laws, see Gehring, 1997; Haverland, 2000). While political competition can be expected to play a role in the early decisions of EU member states to adopt RES policies in the first place, economic competition should occur primarily in times of economic crisis, especially when some

forerunners have unilaterally introduced ambitious domestic policies, but attempts of an EU-wide harmonization of these policies have failed.

From the different ways in which horizontal Europeanization may occur in EU renewable energy policy, one seems particularly probable. We expect horizontal Europeanization in the EU renewable energy policy to occur primarily with regard to the design of support schemes. Since the negotiations of the first RES-E directive, the Commission has been pursuing the goal of having a European support scheme for RES-E in line with market-based mechanisms (see Chapter 2 by Solorio and Bocquillon). But – as shown in more detail in Chapter 2 – this has been a history of failures for the Commission. The attempt at having a European support scheme was frustrated both during the negotiations of the 2001 and again during the discussions of the Renewed Energy Directive (RED) in 2009. In order to compensate for the lack of a European support scheme, the Commission set up a model close to the OMC. As a result, EU renewable energy policy facilitates the conditions for a horizontal Europeanization (Kahles and Müller, 2013). This function has been reinforced with the elaboration of national renewable energy action plans, intended to trigger an information-based process of cross-fertilization of ideas and policies between EU member states. Against this backdrop, Busch and Jörgens (2012b) as well as Jacobs (2012) explain the rapid spread of national FITs among EU member states despite the EU's inability to agree on a specific support scheme as a typical case of horizontal Europeanization. While the biofuels case has not experienced a similar debate on the harmonization of support schemes, it certainly also presents opportunities for analysing the diffusion of support schemes as a process of horizontal Europeanization. An example would be the diffusion of tax exemptions as a mechanism for biofuels promotion among EU member states (Wiesenthal et al., 2009, p. 794). Nevertheless, horizontal Europeanization can also be expected

to occur with regard to RES targets (norm-based imitation) and, more recently, as well with regard to the lowering or dismantling of FITs or RES quotas.

1.3 Outline of the book

This book brings together experts from several European countries in an attempt to provide different insights on the EU renewable energy policy, how it evolved, and its interaction with the domestic policies of its member states (and even beyond the EU). Although all contributors have been invited to adopt the overall analytical framework presented in the previous section, they have also been encouraged to reinforce it with the most suitable theoretical and analytical tools for their respective chapters.

In Chapter 2, Israel Solorio and Pierre Bocquillon trace the chronological evolution of the European structures of governance for RES promotion, including both the RES-E and the RES for transport (RES-T) sectors. By focusing on the historical evolution of the EU renewable energy policy, the authors capture the tensions between the attempts at centralizing renewable energy governance at the EU level (i.e. Europeanization), and the preferences of several member states pushing for the renationalization of this policy.

In Chapter 3, Thomas Vogelpohl, Dörthe Ohlhorst, Mischa Bechberger and Bernd Hirschl open the series of national case studies by examining the case of Germany as a pioneer in RES promotion. They expound the way in which Germany's interaction with the EU and other member states shows traits of all three types of Europeanization (top-down, bottom-up and horizontal). Importantly, the authors of this case study analyse how the German pioneer role – including its

‘Energiewende’ – has not always been welcomed in Europe and has sometimes led to conflict and disputes at the European level.

Chapter 4 tests the long-standing perception of the Netherlands as a ‘green’ member state. By assessing the Dutch behaviour in the context of the EU renewable energy policy and the influence of Europeanization processes – and contrary to what might have been expected from this environmental forerunner – Thomas Hoppe and Ellen van Bueren show that the Netherlands has rather adopted a laggard role when it comes to RES promotion. Continuing with the cases of ‘green’ member states, in Chapter 5 Helene Dyrhaug explains Denmark’s role as an environmental forerunner by tracking the development of the national energy policy and its influence on the EU renewable energy policy (i.e. bottom-up Europeanization).

Chapter 6 deals with a very special national case: United Kingdom (UK). In this chapter, Jenny Fairbrass and Israel Solorio provide an in-depth analysis of the British policy-shaping capacity at the EU level. The authors demonstrate that, in spite of the Brexit debates, the UK has been a key actor in the construction of the EU renewable energy policy by means of both bottom-up and horizontal Europeanization, while the national energy policy has been only marginally transformed by European integration.

Chapter 7 tackles the Italian case and its relationship with the EU renewable energy policy. With it, Maria Rosaria Di Nucci and Daniele Russolillo open the series of national cases studies coping with Southern European countries. The authors argue that Italy has neither been influential at the EU level nor has it complied effectively and timely with EU policies and institutional pressures. In Chapter 8, Israel Solorio and Rosa Fernandez argue that, beyond the economic cycle, the explanation of the early expansion as well as the recent retrenchment of the Spanish renewable energy policy importantly lies in the interaction between European factors and the domestic

scenario. To complement the perspective on the Southern European countries' role, Chapter 9 by Pierre Bocquillon and Aurélien Evrard focuses on the French case. The authors illustrate the limited influence of the European factors in the development of French renewable energy policy and the ambiguous attitude of France at the European level.

The case of Poland is addressed in Chapter 10 by Karolina Jankowska and Andrzej Ancygier, opening the set of case studies dedicated to Eastern European countries. Given that the Polish government has resisted any progress in the European renewable energy policy that could potentially require or cause far-reaching changes to the national status quo (i.e. bottom-up Europeanization), this case study is also key for understanding the evolution of the EU renewable energy policy. In Chapter 11, Simona Davidescu shows that the need to adopt the EU acquis provided Romania both with an impetus and a straitjacket for reform in the RES sector, resulting in an uneven development across the RES-E and biofuels sectors and a variety of structural, procedural and practical barriers to policy implementation. Chapter 12 by Ralitsa Hiteva and Tomas Maltby presents the case study of Bulgaria, a country where the implementation of the EU renewable energy policy (i.e. top-down Europeanization) has been affected by lack of administrative capacity to govern a transition towards a larger share of RES.

In Chapter 13, Gonzalo Escribano tackles Europeanization from a different perspective. He develops the concept of outward Europeanization for referring to the EU efforts to promote RES-E related norms in the neighbourhood and tests it against the development of the Mediterranean Solar Plan in Morocco. Complementing this focus on the external dimension of the EU renewable energy policy, Lorenzo di Lucia examines in Chapter 14 the external dimension of the EU biofuels policy and its impact in Mozambique. In the closing chapter, Eva Öller, Helge Jörgens and Israel Solorio outline the key findings of the case studies and analyze them in light of the three-sided

Europeanization analytical framework presented above.

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Table 1.1. Types of Europeanization, causal mechanisms and expected outcomes

Europeanization Type	Causal Mechanisms	Sources of Influence	Expected Outcomes
Bottom-up (Uploading)	Pace-setting	Strategic capacity for pushing policies linked to national preferences	Minimize the costs or maximize the benefits of EU policies
	Foot-dragging	Power for blocking or weakening policies potentially costly for national interests or at least obtaining side-payments	
	Fence-setting	Neutral or indifferent stance; building tactical coalitions	
Top-down (Downloading)	Prescription of concrete institutional and governance models	Degree of institutional compatibility	Policy change or policy resistance derived from the EU impulse
	Altering the opportunity structure	Resource and power redistribution between domestic actors	
	Promoting changes in the beliefs and expectations	Mobilization of support for domestic reforms	
Horizontal (Crossloading)	Learning	Availability and use of information about existing policies in other EU member states (e.g. best practice)	Cross-national policy convergence in the absence of EU-wide legal harmonization
	Norm-based imitation	Notions about appropriate action in the field of RES policy are shared across EU member states; norm entrepreneurs try to push these ideals	
	Competition (political or economic)	Governments take unilateral action in order to avoid or minimize negative political or economic externalities resulting from other member states policies	

Source: Author's elaboration from Knill and Lehmkuhl (1999, 2002), Börzel (2002), Busch and Jörgens (2012a).

2. EU Renewable Energy Policy: A Brief Overview of its History and Evolution

Israel Solorio and Pierre Bocquillon

2.1 Introduction

The European Union's (EU) renewable energy policy has been in the making for decades. Its early history consisted of small and incremental steps dating back to the 1970s (Nilsson, 2011). From the late 1990s onwards, however, in the wake of the single market agenda and the establishment of an international climate change regime, more significant policy developments were put into motion (Tosun and Solorio, 2011). This chapter retraces the evolution of EU renewable energy policy, from limited sectorial attempts to promote renewable energy sources (RES) to the creation of one of the most comprehensive programmes for supporting RES development worldwide.

The chapter focuses on the historical evolution of the European governance structures for RES promotion, including both the electricity (RES-E) and transport (RES-T) sectors, following a chronological approach. It traces the tension between attempts to centralize renewable energy governance at the EU level and the preferences of several member states for a flexible framework that allows for a wide range of national support policies – these positions being to a large degree determined by different national political and economic contexts for RES promotion

(see Reiche and Bechberger, 2004, 2005). The chapter argues that, although the 2009 renewable energy directive (RED) represented a leap forward in terms of the Europeanization of national renewable energy policies, centralization has been only partial and has not gone unchallenged, as shown by the debates on the 2030 RES targets and the subsequent revision of the RED. Section 2.2 presents the early days of EU renewable energy policy, based on soft coordination mechanisms. Section 2.3 focuses on the development of the first concrete measures in the early 2000s (RES-E and biofuels directives), characterized by indicative objectives and a loose regulatory framework. Section 2.4 analyses the consolidation of EU renewable energy policy through the RED, including binding objectives and decentralized national policy frameworks. Section 2.5 shows how the 2030 RES targets have been shaped by conflicting positions in a contest between centralization and re-nationalization, together with a heated debate on the future of biofuels support as part of EU renewable energy policy. Finally, Section 2.6 presents some concluding remarks on the evolution of EU renewable energy policy.

2.2 First steps: soft coordination and modest support for research, development and demonstration

At the European level, attempts at promoting RES were made from the late 1970s onwards (Nilsson, 2011). Following the two oil shocks, the Commission of the European Community (EC), the Council of Ministers and the newly established European Council called for research and development (R&D) support for ‘new sources of energy’ as a way to curb oil dependence and enhance European energy security (Boasson and Wettestad, 2013, p.79; Hildingsson et al., 2012, p. 19). The EC adopted indicative energy-saving objectives and a programme for the

‘rationalisation of the use of energy’, including renewable energy research, demonstrations and regional applications (Twidell and Brice, 1992, p. 472). Yet these remained limited in view of member states’ reluctance to relinquish their control over energy supplies. During the 1980s the promotion of RES was incorporated into the EU’s regional policy. For instance, the aim of the Valoren programme (1986) aimed to develop certain less-favoured regions of the Community by exploiting endogenous energy potential (see Chapter 7 by Di Nucci and Russolillo on Italy). Overall, before the 1990s most large-scale R&D support came from national programmes in a few pioneering EC countries – Germany, the Netherlands and Denmark – and neighbours – Finland and Sweden (Jacobsson and Bergek, 2004; Meyer, 2007, see also Chapter 3 by Vogelpohl et al. on Germany, Chapter 4 by Hoppe and van Bueren on the Netherlands and Chapter 5 by Dyrhaug on Denmark).

At the beginning of the 1990s climate change moved to the centre of the EU’s agenda (Skjaereth, 1994; Morata and Solorio, 2012). This gave a new impulse to RES promotion, which was reframed as a means of addressing global warming. The JOULE and THERMIE programmes, adopted in 1989 and 1990 as part of the second Framework Programme for Research and Technological Development, provided limited support for demonstration activities for non-nuclear energy. More significant was the ALTENER programme, adopted in 1993 in the wake of the Rio Earth Summit (1992) with the objective of reducing carbon dioxide (CO₂) emissions by means of RES promotion. The programme was part of a wider package of energy and climate measures, including the creation of a carbon/energy tax, and aimed to demonstrate EU climate commitments at the international level. However, due to stark opposition from several member states to the energy/carbon tax, the package unravelled (Skjaereth, 1994). As for the ALTENER decision, this was substantially watered down. The programme was granted

less funding than initially planned and contained only indicative objectives: a target of 8 percent of RES in EU energy consumption by 2005, an objective of tripling RES-E generation, and a target of 5 percent biofuels by 2005. In its infancy, EU renewable energy support s constituted ‘soft coordination of research, development and demonstration (R&D) policies’ (Hildingsson et al., 2012, p. 21). In parallel, at the national level, several member states shifted from R&D support to more ambitious programmes aiming to support market developments for RES technologies. Denmark (1986), followed by Portugal (1988), Germany (1990), Greece, Luxemburg and Spain (1994), adopted a Feed-In-Tariffs (FITs) system to support RES deployment (Busch and Jörgens, 2005, 2012; see also Chapter 3 by Vogelpohl et al. on Germany, Chapter 5 by Dyrhaug on Denmark and Chapter 8 by Solorio and Fernandez on Spain). Other countries, such as the UK (1990), Ireland (1996) and France (1996), opted for tendering schemes as their main support instrument (see Chapter 6 by Solorio and Fairbrass on the UK and Chapter 9 by Bocquillon and Evrard on France). At this stage, policy developments were mainly national and EU programmes were dwarfed by the more comprehensive and ambitious support schemes of a handful pioneering countries – chiefly Denmark, Germany and Spain. Early actions at the EU level were nevertheless important in facilitating the conditions for developing national renewable energy policies while setting the basis for future action.

2.3 The development of EU renewable energy policy: indicative objectives, a loose regulatory framework

The release of the 1996 Commission Green Paper on RES (COM, 1996), followed a year later by a White Paper entitled ‘Energy for the Future: Renewable Sources of Energy’ (COM, 1997),

represented a key turning point in the evolution of EU renewable energy policy. The White Paper included an indicative target of 12 percent RES in EU primary energy consumption by 2010, and listed a set of measures to overcome remaining obstacles to RES development in the sectors of electricity, transport, and heating and cooling (COM, 1997, pp. 14-18). Released in the context of implementing the single market agenda, the two Commission documents emphasized the need to curb barriers to RES trade (Lauber, 2005b). Remarkably, the White Paper proposed creating a European system of tradable ‘renewable energy credits’ with the dual aim of fostering RES deployment and preventing ‘market distortions’ arising from the spread of national support schemes. It was not until a few years later that the Commission came up with legislative proposals, emboldened by new international energy and climate developments.

In 2000 the Commission launched the European Climate Change Programme (ECCP) in order to implement the EU’s Kyoto commitments. RES promotion was therefore increasingly framed as a means of achieving EU climate commitments (Morata and Solorio, 2012). In addition, the rise in oil and gas prices, as well as the increasing dependence on fossil fuel imports, fuelled energy security concerns (COM, 2000), to which RES promotion was seen as a response. It was in this context that the Commission proposed the first two EU directives for RES promotion under EU environmental competencies (ex art. 174) – one directive for the promotion of renewable electricity (RES-E) and one for biofuels (RES-T) (Tosun and Solorio, 2011). The Council and the Parliament eventually adopted them in 2001 and 2003, respectively.

2.3.1 The renewable electricity directive

Directive 2001/77/EC on the promotion of RES-E was the first EU legislation explicitly oriented towards promoting RES (Reiche and Bechberger, 2004, 2005). It was originally proposed in May 2000, after a bumpy process of consultation with member states, the European Parliament (EP) and stakeholders (Lauber, 2005a, 2005b). Three issues were particularly contested: (1) the definition of RES, (2) the possibility of establishing binding RES targets for member states, and (3) whether or not the directive would contain a harmonized support system (Rowlands, 2005).

Regarding the first issue, several member states pushed successfully for a broad definition, including large hydroelectricity and industrial waste, that would make it easier to achieve their targets. On the second issue, both the Commission and the EP defended the need for mandatory RES targets for member states. In contrast, the Council considered that the indicative target of 12 percent was a useful and sufficient guide for national efforts towards RES promotion (Meyer, 2001, p. 666). Member states prevailed, and the targets that were eventually adopted, although relatively ambitious, remained non-binding (Rowlands, 2005, p. 970). Finally, concerning the third issue, a Commission draft leaked in October 1998 called for the harmonization of RES support schemes by establishing a European market for trading in renewable energy certificates (Lauber, 2007; Lauber and Schenner, 2011). The Commission argued that different policy instruments or differences in levels of support could create trade barriers within the liberalized European electricity market and result in unfair competition. However, within the Council the proposal was strongly opposed by both Germany and Spain (see Chapter 3 by Vogelpohl et al. and Chapter 8 by Solorio and Fernandez). During the negotiations, the issue split those market-oriented governments with plans for Tradable Green Certificates (TGCs) markets and those increasingly numerous countries that had successfully implemented

FITs (Busch and Jörgens, 2005, 2012; Rowlands 2005, p.972).

The final directive dodged the most sensitive issues, resulting in a relatively weak text without mandatory targets for member states and without any harmonization of national support systems (Midttun and Koefoed, 2003, p.684). The main objective set by the directive was an indicative goal of 22.1 percent of RES-E in total EU electricity consumption by 2010. The annex of the directive also included national indicative targets – ranging from 5.7 percent for Luxembourg to 78.1 percent for Austria – based on their ‘technological and economic potential’. While there was no European model for supporting RES-E, the Commission was in charge of presenting a report on the experience gained through the application and coexistence of different mechanisms. The directive also intended to tackle issues related to the grid system, requiring member states to take the necessary measures – including the possibility of establishing priority access to the grid – to ensure the transmission and distribution of RES-E.

2.3.2 The biofuels directive

Following the RES-E directive model, in November 2001 the European Commission proposed a legislative package for promoting biofuels. The main motivations were threefold: (1) curbing fast-rising transport emissions, (2) reducing EU dependence on imported oil in a context of rising prices and increased geopolitical tensions, and (3) supporting agricultural and farmers’ revenues (Di Lucia and Nilsson, 2007; Afionis and Stringer, 2012; Akrill and Kay, 2014, p. 55-56). As part of this package, the first proposal was a ‘taxation directive’ allowing for reduced rates of excise duty on biofuels. The second proposal, a ‘deployment directive’, set targets for developing

biofuels in transport. The first one, negotiated under a unanimity rule in the Council, unravelled because of the sensitivity of the taxation issue, and was replaced by the more general directive, 2003/96/EC, restructuring the Community framework for the taxation of energy products (see Chapter 3 by Vogelpohl et al. on Germany and Chapter 8 by Solorio and Fernandez on Spain). The ‘deployment directive’, however, was rapidly adopted by the Council and Parliament, under the Treaty’s environmental provisions, in May 2003 (Tosun and Solorio, 2011).

Similarly to the RES-E directive, the nature of the targets proved especially controversial. Those countries that had already developed a significant biofuels sector (e.g. Austria, Germany, France, Italy, Spain and Sweden), as well as the Commission and the EP, supported binding targets. They were opposed by those countries with a limited agricultural sector and some other more environmentally minded ones, who contested the benefits of biofuels in terms of security of energy supplies or GHG reduction (i.e. Denmark, the Netherlands and the UK) (Di Lucia and Nilsson, 2007, pp.537-40). In the end, the directive only contained indicative targets for reaching a 2 percent share of biofuels consumption in transport by 2005, rising to 5.75 percent in 2010. The directive also left member states a large degree of freedom in choosing the most suitable instruments for biofuels promotion. As with the renewable electricity directive, the final text was therefore a loose framework for what remained a rather decentralised policy.

Although at the time the benefits of biofuels were already being contested, overall there was widespread support in view of the climate change and energy security challenges faced by the EU (Skogstad, 2016, p. 9). The most vocal opponents were the oil industry, which saw biofuels as competitors, environmental advocacy groups such as WWF, as well as the Greens in the EP. To alleviate concerns, it was agreed that the Commission would report not only on the implementation of the directive but also on the sustainability of biofuel production, starting in

2006 and every two years thereafter.

2.4 Consolidation of EU renewable energy policy: binding objectives and a decentralized national policy framework

From the mid-2000s onwards, renewable energy policy climbed up the European agenda again, due to a combination of domestic and international factors. A review of the RES-E and biofuels directives showed that the indicative targets lacked teeth (COM, 2007). Only a few countries were on track to achieve their national objectives, while the EU as a whole was lagging behind its targets. In parallel, in a context of rising energy imports and security of supply concerns, heightened by the 2006 gas crisis between Ukraine and Russia, the Commission devised a comprehensive EU energy strategy, outlined in the 2006 Green Paper, that stressed the role of RES in climate mitigation and supply security (Morata and Solorio, 2012). Finally, the publication of new scientific evidence on the urgency and economic costs of climate change – from the Stern Review on the economics of climate change to the IPCC's 4th Assessment Report in 2007 – contributed to creating a favourable context for RES promotion. In December 2007, as media and public attention to climate change was rising, the parties to the Kyoto protocol adopted the 'Bali Roadmap', which set a path towards a post-Kyoto international climate agreement.

It was in this context that the Commission proposed a set of three targets as part of a cross-sectoral 'climate and energy package', the so-called '20-20-20' targets: a 20 percent reduction in GHG emissions (expandable to 30 percent in case of international agreement), a 20

percent energy saving target and a target of 20 percent RES in EU final energy consumption. A sub-target of 10 percent of RES in transport (RES-T) was also included. Although the Commission favoured binding targets, several member states – including the British and French governments – remained reluctant about these for RES (see Chapter 6 by Solorio and Fairbrass on the UK and Chapter 9 by Bocquillon and Evrard on France). Yet, at a landmark European Council in March 2007, under the leadership of the German Chancellor Angela Merkel (see Chapter 3 by Vogelpohl et al. on Germany), the Heads of State and Government adopted the 20-20 targets. Against the expectations of many, the 20 percent RES target was made compulsory, while the 10 percent RES-T target was also made binding but ‘subject to production being sustainable’ to alleviate concerns about the effects of biofuels on the environment and food production (Bocquillon, 2015, p. 138; European Council, 2007, p. 21).

The conclusions of the European Council provided the impetus and established guidelines for the Commission to draft a raft of new legislation which formed the ‘Climate and Energy Package’ (CEP). Presented in January 2008, the CEP included a draft directive that distributed the efforts being made to achieve 20 percent RES in final energy consumption among member states, made the 10 percent RES-T target compulsory, and established a scheme for ensuring the sustainability of biofuel production. This text was negotiated quickly and adopted by the Heads of State and Government along with the rest of the package at their December 2008 summit, to demonstrate leadership in light of the climate conference at Copenhagen in 2009 (Morata and Solorio, 2012).

2.4.1 The return of the debate on the harmonization of RES-E support schemes

During the negotiations there were relatively circumscribed discussions on the proposed national targets. The European Council's endorsement of the targets gave them strong legitimacy. In addition, and to anticipate critiques, the Commission abandoned its plan of sharing the effort in a 'cost-effective' way based on the RES potential of each member state, which would have been actively contested by various member states. Instead, the Directorate General Energy and Transport (DG TREN) proposed a distribution key founded on economic justice criteria – combining a flat rate of 5.5 percent with a variable part depending on GDP per capita and adjusted to account for the past efforts of 'early starters' – which proved more resilient to criticisms (Howes, 2010; Bocquillon, 2015, p. 139). Yet, member states quasi-unanimously opposed the setting of binding intermediary targets in their National Action Plans (Gullberg 2013).

Two aspects of the directive were particularly disputed. First, the Commission attempted once again to harmonize national support schemes for RES-E by means of a TGCs scheme in the name of 'cost-effectiveness' and 'flexibility' in achieving the targets (Nilsson et al., 2009; Lauber and Schenner, 2011). However, Germany and Spain, two large member states which had successfully promoted RES through national FITs, fiercely opposed harmonization out of fear that it would endanger their national systems (see Chapter 3 by Vogelpohl et al. on Germany and Chapter 8 by Solorio and Fernandez on Spain). They had the support of national and European RES industry organizations (notably EREC and EREF, see Foreword), as well as the EP – whose rapporteur was the experienced Green MEP Claude Turmes. The Commission eventually backed down, proposing a directive that included certificate trading between companies but with possible opt outs for member states under certain conditions (Fouquet and Johansson, 2008; Toke, 2008, p.3003). This proposal, intended as a compromise, still faced stiff opposition from

several FIT countries, the RES industry and the EP. In the summer of 2008 Germany in cooperation with the UK and Poland – two countries which had implemented tradable certificates at home – proposed a settlement that broke the deadlock (Lauber and Schenner, 2011; Boasson and Wettestad, 2013). It included cooperation and flexibility mechanisms to achieve national targets but no TGCs scheme.

2.4.2 Managing the controversy over biofuels sustainability

The second major bone of contention was the issue of biofuels' environmental sustainability. From the start, the benefits of biofuels in terms of climate mitigation and energy security were contested. However, the controversy reached new levels in 2008 when food price volatility, largely blamed on the expansion of biofuels and competition between food and fuel crops, caused riots in several countries across the global South – from Egypt to Haiti. In Europe, environmental and development NGOs seized on these events to challenge the 10 percent biofuels target, arguing that it was responsible for hunger, land grabs, deforestation and the destruction of ecosystems in developing countries (Pilgrim and Harvey, 2010). New scientific studies were also harnessed to question the benefits of biofuels in terms of GHG emission reductions when the emissions associated with indirect land use change (ILUC) – the displacement of other activities by biofuels production – were taken into account (Fargione et al., 2008; Searchinger et al., 2008).

Responding to concerns over the sustainability of biofuel production, the Commission transformed the 10 percent biofuel target into a target for all renewable energy sources in transport (e.g. electric cars). The Energy and Environment DGs also worked jointly on a scheme

establishing ‘sustainability criteria’ under which biofuels production could be counted towards the achievement of the 10 percent target, which set criteria in terms of land conservation – excluding highly bio-diverse lands or lands with high carbon stocks (such as forests and wetlands) – and GHG reductions – with a minimum GHG emission saving limit. As argued by Levidow (2013) and Palmer (2014), to deflect conflict and depoliticize the issue of biofuel sustainability, the Commission framed it as mainly a GHG emission reduction problem, de facto reducing its scope to a mere technical matter of carbon accounting.

In spite of these moves to deflect conflict, the biofuel target aroused acute debates. On the one hand, the green bloc constituted of countries with limited biofuels markets or strong environmental movements – headed by Denmark, Germany, the Netherlands and the UK. These had more ambitious demands concerning the sustainability criteria for biofuels. On the other hand, those countries with significant domestic biofuels production or agricultural potential – such as Austria, France, Poland and Spain – lobbied in favour of the 10 percent target (Sharman and Holmes, 2010). They opposed certain sustainability criteria that were not favourable to their domestic production, while often supporting rigorous criteria for biofuels imported from third countries (Müngersdorff, 2009). This cleavage was not clear-cut however. Germany, which had a high level of biofuels production, was generally supportive of biofuels under certain conditions, while the Nordic countries wanted criteria loose enough to allow their forestry and peat sectors to be counted as sustainable biofuels. Further, the EP was especially sensitive to the social and environmental impacts of biofuels and wanted to strengthen and extend environmental and social criteria. The French Presidency, which had strong stakes in promoting biofuels, was instrumental in brokering a compromise agreement that maintained the 10 percent target but included slightly more stringent GHG and other sustainability criteria (see Chapter 9 by Bocquillon and Evrard on

France).

2.4.3 The final agreement

In 2009, directive 2009/28/EC on promoting the use of RES, also known as the renewable energy directive (RED), amended and repealed both the RES-E and the biofuels (RES-T) directives. It established a common framework for promoting RES, including not only the electricity sector but also transport, and heating and cooling, setting an overall EU RES target of 20 percent by 2020, as well as mandatory national targets in terms of overall share of RES in gross final consumption of energy. A flat mandatory target of 10 percent RES for all member states was also included for the transport sector. The implementation of these objectives was left in the hands of national governments, which were required to elaborate National Action Plans including non-binding sub-sectoral and interim objectives in transport, electricity, and heating and cooling.

For electricity, the directive included mechanisms aimed at providing flexibility and strengthening cooperation between member states. Although it refrained from harmonizing national support schemes, it introduced the possibility of joint support schemes, joint projects and statistical transfers of RES between member states counting towards the achievement of their national targets (see Howes 2010 for more details). To facilitate the integration of RES in national energy systems, the directive established that member states should provide for either priority access or guaranteed access to the grid system for electricity produced from RES. The RED also opened the door for RES-E imports from third countries (see Chapter 13 on the Mediterranean Solar Plan by Escibano).

In a context of enduring controversy, the initial plans for the transport sector underwent further changes. The directive established that all types of RES should be taken into account as counting towards the 10 percent target in transport. In addition, to make the target more acceptable to the EP and easier to achieve for member states, a multiplier was applied to second-generation biofuels – from non-food crops – as well as to electric cars. The directive included sustainability criteria for biofuels as well as mechanisms for calculating their greenhouse gas impact which broadly reflected the Council agreement. To be counted towards the target, biofuels needed to achieve a 35 percent reduction in GHG, rising to 50 percent in 2017 (Akrill and Kay, 2014, p. 65-66; Howes, 2010). In addition, they could not be sourced from highly biodiverse lands and biofuel operators were required to provide a list of information related to environmental sustainability and social criteria to the Commission. Nevertheless, the highly technical, yet politicized, issue of ILUC was not taken into account in the calculation of GHG savings – despite the insistence of the EP – while other sustainability and social criteria remained vaguely defined. However, the EP obtained reinforcement of the monitoring and reporting requirements from the Commission, starting in 2012 and occurring every two years thereafter (Müngersdorff, 2009).

Overall, the contextual conditions in 2008-09 were key to maintaining a relatively high level of ambition and commitment to RES promotion at the European level. International climate change negotiations and the EU's aim of presenting itself as a climate leader were decisive in the quick adoption of the 2020 goals and implementing legislation (Wurzel, 2011). The sequence resulted in a more Europeanized structure of governance – through binding objectives with a centralized review process – but also the maintenance of decentralized national policy frameworks based on National Action Plans which left member states free to define their RES

support schemes (Boasson and Wetttestad 2013; Bürgin, 2015).

2.5 RES promotion and the 2030 goals: tensions between centralization and renationalization of EU renewable energy governance

The road to adopting the 2030 targets has been marked by tensions between pressures for harmonization and attempts at re-nationalization. Moreover, the heated debate on the future of biofuels support has endured. These debates have influenced the negotiations over three key reforms of EU renewable energy policy: the 2030 climate and energy framework, the guidelines on state aid for environmental protection and energy 2014-2020, and, last but not least, directive 2015/1513, which amended important parts of the RED related to biofuels promotion.

2.5.1 Between renationalization and convergence: RES support after the economic crisis

The need to establish energy and climate targets for the post-2020 period has been driven by the evolution of the international climate change regime, in particular the 2011 Durban agreement to begin negotiations on a new global regime to replace the defunct Kyoto Protocol, to be concluded at the Paris UN conference of December 2015. Nevertheless, the setback of the Copenhagen conference in 2009, where participating countries failed to reach an agreement and the EU was side-lined by the US and China, has dealt a blow to the EU's self-proclaimed leadership in climate change (Wurzel and Connelly 2011; Skovgaard 2013). In addition, the financial crisis and its economic and budgetary consequences have fuelled debates about the cost

of RES support schemes, which have been blamed for rising electricity prices in several member states (Bürgin 2014, p. 698; see also country case studies in this volume). Criticisms of the costs of RES support schemes have been further intensified by the rapid fall in the cost of some RES technologies, especially solar photovoltaic, due in part to mass production in China which has driven several European producers out of the market. This context has influenced implementation of the RED and subsequent discussions on the 2030 goals.

Both the European Commission and the Council were divided on the nature of the 2030 framework governance structure. Part of the Commission, including then President Barroso, DG Environment and Climate Commissioner Hedegaard, as well as a faction of DG Energy, were in favour of keeping the established framework based on a general and ambitious EU target combined with national binding objectives. They had the support of the EP and environmental groups, who advocated an RES target of at least 30 percent. This group especially emphasised the co-benefits of RES in terms of security of supply and jobs (Bürgin, 2015, p. 700). On the other hand, a strong faction of economists in DG Climate Action, as well as Energy Commissioner Oettinger, supported the UK's request for a single GHG reduction target, to be achieved through a reformed emissions trading scheme in a 'cost-effective' and 'technology neutral' manner (see Chapter 6 by Solorio and Fairbrass). This strategy was congruent with several member states' aims to avoid binding commitments and renationalize renewable energy policies.

In January 2014 the European Commission put forward its proposal for a post-2020 climate and energy framework which included a 40 percent GHG reduction target by 2030 combined with a 27 percent RES target. Disregarding the results of its own impact assessment, which showed the benefits of an ambitious RES target in terms of job creation and fossil fuel

import reduction (COM, 2014a), the Commission settled for a watered down compromise solution that preserved GHG emission reduction ambitions at the expense of RES. The compromise consisted of a binding but unimpressive RES target of ‘at least 27%’ at EU level – only slightly above the business as usual scenario – and no mandatory objectives at the national level in the name of flexibility. This move reflected the personal influence of the Energy Commissioner (Bürgin, 2014) but also, and above all, increasing divisions and reluctance among member states.

The October 2014 European Council, where the 2030 climate and energy framework was finally agreed by the Heads of State and Government, was held hostage by some member states, such as the UK and France, who were lagging behind their targets and were looking to recover control over their energy mix (EurActiv, 2014; European Council 2014). The Poland-led Visegrad Group, representing Central European countries, also fought to get maximum flexibility and financial assistance to modernize their energy systems and meet future climate targets (van Renssen, 2014). In the end, an agreement was reached on the 40 percent GHG emission reduction target, at the cost of significant concessions such as free allowances for less wealthy member states. The 27 percent RES target was maintained but without binding national objectives, while an energy efficiency target of at least 27 percent was purely indicative.

Whereas the 2030 climate and energy framework agreement suggests renationalization of the EU renewable energy policy’s governance structure, the guidelines on state aid for environmental protection and energy 2014-2020 (COM, 2014b) reveal a more discreet process of Europeanization of national RES support schemes. After several unsuccessful attempts to harmonize national support schemes through EU legislation, the Commission has adopted a different strategy for folding RES support into the framework of the internal energy market, in a

context where governments are concerned with the costs of RES support schemes and their impact on energy prices (Jacobs, 2015). The revised Environmental and Energy Aid Guidelines prescribe that FITs are no longer considered permissible state aid and have to be progressively replaced by models that grant more importance to market signals, such as Feed-In Premiums (FIPs) or tradable certificate schemes (Boscheck, 2014; see also Chapter 3 by Vogelpohl et al. on Germany). This has accelerated the convergence of support systems across Europe, with several countries switching to FIPs.

2.5.2 Arrested development: ILUC and the backlash against first-generation biofuels

Since the adoption of the RED, the debate on biofuels' sustainability has carried on unabated (Solorio and Popartan, 2014). It has focused in particular on ILUC associated with biofuel production and its impact on GHG emissions. ILUC is especially difficult to measure since it requires life cycle assessments of specific biofuel crops and complex modelling of land use change dynamics (Di Lucia et al., 2012, p. 10; see also Chapter 14 by Di Lucia). Inconclusive and disparate pieces of scientific evidence on the scale and intensity of this phenomenon have been harnessed in a political battle between the proponents of biofuels – those countries with significant production, the biofuel industry and farming lobbies – and their critics – oil companies, and environmental and developmental NGOs (Skogstad, 2016, pp. 13-15).

According to the RED, the Commission was expected to produce a report on ILUC in 2010 which gave further evidence of the scientific uncertainty surrounding the issue, while recognizing the potential role of ILUC (COM, 2010). In 2012, responding to its critics and in

view of growing evidence of the negative impacts of biofuel production, the Commission proposed a 5 percent cap – close to current consumption – on the use of first-generation biofuels (e.g. biofuels made from food crops), with the aim of limiting competition between fuel and food crops and to favour the emergence of advanced biofuels. It also suggested taking ILUC into account in the calculation of GHG emission reductions through the inclusion of an ILUC factor and setting a 2 percent sub-target for advanced biofuels. This move was supported by environmental advocacy groups such as Greenpeace, Friends of the Earth and Transport & Environment, as well as by the EP. The Council was divided between countries who pushed for a higher cap (mainly producers such as France, Portugal, Spain and several Central European countries), and those countries who supported the 5 percent cap (Belgium, Denmark, the Netherlands, the UK and Germany, despite the latter's high levels of production) (Greenpeace, 2013; Skogstad, 2016, p. 18). In the end, the Council settled for a middle ground position corresponding to a 7 percent cap, combined with an optional target of 0.5 percent second-generation biofuels by 2020. Member states will be required to submit information about ILUC, whose potential inclusion in the calculation of GHG emissions is left to a future review. The EP reluctantly endorsed this compromise in Spring 2015, after lengthy negotiations and as a second best option (EurActiv, 2015).

Biofuels production has stalled, partly as a result of policy uncertainty created by ILUC debates, both at the EU level and in several member states. The economic slump has also contributed to this evolution through the levelling off of fuel consumption and a collapse in oil prices. The negative image associated with biofuels and their uncertain benefits in terms of GHG emission reductions have curbed the enthusiasm that was apparent in the mid-2000s. In this context the future of the EU's biofuel policy appears especially uncertain.

2.6 Conclusion: the rise and fall of EU RES policy?

European legislation on RES promotion represents a pioneering and ambitious attempt to transform energy systems in the face of the climate change challenge. Although other considerations – such as the harmonization of national support schemes as part of the internal market, or the support to the agriculture sector – have played an important role as well, international climate leadership has been the driving factor in these developments. Both the RES-E and biofuels directives, although lacking teeth – a reflection of member states' divisions and cautious approach – represented the first steps in the establishment of an innovative regulatory framework for RES promotion in the early 2000s. The 2009 RED built on this framework but included binding commitments to overcome the limitations of the previous legislation. The RED also marked a shift towards more integrated approach to RES promotion, including the three sectors of RES-E, RES-T and heating and cooling. Finally, it partially centralized RES promotion at the EU level by setting mandatory national RES targets and giving the Commission oversight over National Action Plans. Yet, despite the Commission's activism, the directive came short of harmonizing or centralizing support schemes for RES, which remained a national prerogative.

The implementation of the RED has been relatively successful. As of 2015, the European Environmental Agency (2015, p. 10) estimated that the EU as a whole, and no less than 20 member states, were on track to meet their 2020 targets, transport being the sector in which progress has been the slowest. Yet, despite this positive outcome, RES promotion has somewhat

lost momentum at EU level as well as in several member states. Since the outbreak of the economic crisis, RES support has faced a particularly unfavourable context, which has been exploited by some governments to reclaim control over national their jealously guarded energy mixes and by incumbent (fossil and nuclear based) energy industries to roll back renewable energy policy support.

The EU climate and energy targets for 2030 reflect these changing conditions. The RES target of 27 percent by 2030 is only slightly above the business as usual scenario and only secondary to the climate mitigation goals of 40 percent GHG emission reductions by 2030. The rejection of mandatory national RES targets suggests a partial but significant renationalization of renewable energy policies, which has not stopped the Commission from seeking harmonization by other means (through its state aid guidelines). This longstanding tension between harmonization and national control can be expected to persist.

As for the promotion of biofuels it has also been negatively affected by the economic context, but it is the enduring controversy over the sustainability of first-generation technologies that explains slow progress. From ‘green bullet’ to decarbonize the transport sector – and support agriculture – biofuels have become synonym with land grabs and unaccounted indirect emissions, in large part as a result of the advocacy work of environmental NGOs. The economic interests of the agri-business lobby and of several governments have prevented a complete roll back, but it is not incidental that no specific transport target has been proposed for 2030. In this context, it remains to be seen how rising emissions in the transport sector will be addressed in the revised RED.

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3. German renewable energy policy – independent pioneering versus creeping Europeanization?

Thomas Vogelwohl, Dörte Ohlhorst, Mischa Bechberger, Bernd Hirschl

3.1 Introduction

The German ‘Energiewende’ is perceived throughout the world as a demanding transformation approach towards an energy system with a high share of renewable energy sources (RES). With first attempts starting in the early 1970s, and with more intense efforts as of the early 1990s, innovative domestic policies have been adopted to increase the share of RES, with relative success both in the RES for electricity (RES-E) and the renewable energy sources in transport (RES-T) sector. However, these pioneer RES policies were not only welcomed in Europe, but also led to conflicts and disputes at the European Union (EU) level.

Therefore, this chapter asks how the vertical and horizontal interactions between Germany and both the EU and other member states can be appraised. Did Germany push its pioneer policy at the EU level? Or did it block or weaken policies at the EU level which did not fit the domestic policy? Did Germany promote its pioneer policy in other member states? Or did the EU or other countries undermine this pioneering role? Did the EU prescribe or otherwise promote opposing policy models? Which mechanisms and strategies were at play in these contexts? And, last but not least, what are the differences between RES-E and RES-T policy with regard to the German case? To answer these questions, we will build on the analytical framework of Europeanization, according to which these vertical and horizontal interactions can be

classified into three types of Europeanization: bottom-up (uploading), top-down (downloading), and horizontal (crossloading), each of them associated with specific mechanisms and strategies (see Chapter 1 by Jörgens and Solorio).

In the following sections, we will expound that Germany's interaction with the EU and other member states shows traits of all three types of Europeanization, but is mainly characterized by its pioneering position in RES promotion. Due to this, Germany's provision emphasized horizontal Europeanization (crossloading) for at least a decade – particularly in the RES-E sector. Simultaneously, Germany shaped European policy in a foot-dragging way: it influenced the design of European law in order to keep room for maneuver at the national level. Thus, Germany was for a long time able to safeguard its RES policies against harmonization efforts by the European Commission. Recently, however, Germany has been jeopardizing its pioneer position and top-down Europeanization is increasingly affecting its domestic RES policies both in the RES-E and in the RES-T sector.

3.2 Analytical underpinnings and methods

Germany is often considered a pioneer or forerunner in EU renewable energy policy (Jänicke, 2011; Jacobsson and Lauber, 2006; Solorio et al., 2014; Mez, 2009). But what does being a pioneer country mean in terms of the abovementioned types of Europeanization? Environmental policy pioneering can be related to two types of Europeanization: uploading and crossloading. Uploading – specifically the mechanism of pacesetting – represents a rather offensive strategy. It implies that the pioneering country actively uploads its domestic pioneer policy to the supranational level. This presupposes the strategic capacity for pushing policies in line with domestic preferences at the EU level (see Chapter 1 by Jörgens and Solorio). Thus, a question of

pivotal importance is whether a pioneering country has this capacity, and, in the case that it does, how does it use this capacity strategically? In the case that it uses it sensibly and successfully, a pioneering country can avoid or minimize downloading costs potentially triggered by differing EU-wide legal harmonization efforts. Instead, other member states would be forced to adopt the policy of the pioneering country, which implies costs to the former and a competitive edge to the latter. As Liefferink and Andersen (1998) suppose, this strategy can be expected to be pursued by a classic 'green' member state like Germany.

However, uploading (in the sense of pacesetting) is not the only strategy pursuable by environmental policy pioneer countries. Crossloading represents an alternative pioneering strategy. It implies that pioneering countries – confronted with the impossibility of uploading national policies – act as norm entrepreneurs which function ‘as (intellectual) leaders under conditions of uncertainty. Their solutions for general environmental problems are adopted by other countries’ (Jänicke, 2005, p. 129), thereby providing ‘a stimulus to rethink established policies and to cause changes in beliefs concerning what is feasible’ (Andersen and Liefferink, 1997, p. 4). Furthermore, crossloading is a way to avoid or minimize negative political or economic externalities. In the context of the EU multi-level system, however, crossloading pioneer policies has to be accompanied by the uploading strategy of foot-dragging – that is, avoiding legal harmonization at the supranational level which would compromise the pioneer policy. Therefore, strategic activities of the crossloading country not only have to be focused on fellow countries, but also on the supranational level, where a policy framework needs to be promoted which gives member states enough leeway to adopt and implement the pioneer policy.

Thus, pioneering in environmental policy in the EU implies a certain Europeanization strategy: either the uploading, pacesetting one or the alternative crossloading, norm-

entrepreneurial one that has to be accompanied by foot-dragging at the supranational level. Recent developments, however, hint at Germany's loss of a pioneering role in the area of renewable energy policy. Along with this supposition the question arises as to whether Germany is also being affected by EU policy. Top-down Europeanization, particularly in the case of EU renewable energy policy, does not necessarily come along as concrete policies or institutional models which are prescribed in a legally binding manner by the EU. There are also less obvious forms of top-down Europeanization which take effect via the alteration of opportunity structures. They can be triggered by a change in the distribution of power and resources between actor coalitions at the domestic level caused by European policymaking. They can also be initiated via changes in the belief systems and expectations of actors at the domestic level which are triggered by 'cognitive input' from the EU level (see Chapter 1 by Jørgens and Solorio).

This conceptual framework of Europeanization equips us with the analytical tools necessary to answer the questions raised in the introduction. Methodologically, this analysis is based on comprehensive secondary literature on the German RES-E and RES-T policies supported with the analysis of primary policy documents. These documents include drafts of laws and regulations, minutes of parliamentary plenary and committee meetings, reports of hearings and conferences, statements and studies commissioned by the actors involved, press releases, and so on. These documents were qualitatively analyzed in order to extract the positions of the actors involved and the interactions between the national and the EU level. In cases where relevant information could not be obtained from the literature analysis, where open questions needed to be clarified, or where preliminary results needed to be validated, these analyses were complemented by individual interviews with experts deeply involved in the relevant policy processes.

3.3 RES-E policy in Germany and its repercussions with the EU level

3.3.1 Early RES-E policy in Germany

The promotion of RES-E in Germany took its first steps after the first oil price crisis in 1973. Until the late 1980s however this promotion only consisted of smaller incentive programs for wind and solar energy. This changed in 1990, when the Electricity Feed-In Act was passed. It was one of the first laws in Europe obliging public energy utilities to purchase and remunerate RES-E on a yearly fixed basis.¹

During the 1990s, not only the RES-E support policy, but also the general legal framework for the energy sector was important for the promotion of RES-E in Germany. Several governments had unsuccessfully tried to introduce more competition in the energy market, but failed over many years due to the resistance of powerful advocacy coalitions, dominated by energy companies (Monstadt, 2004). However, the directive 96/92/EC requested a liberalization of the electricity market and thus exerted pressure on member states to take action. The directive was eventually implemented in Germany in 1998 by the first amendment to the Energy Industry Act. Thus, the liberalization process in Germany was characterized by a downloading process, or more specifically by the EU using the mechanism of prescribing a liberalized governance model. Germany downloaded the EU strategy of liberalization. German lobby groups welcomed the directive: they expected both more competition and lower prices from a market reform (industrial lobby groups, parts of the government, cartel office), and more leeway towards greening and decentralizing the electricity supply (Green Party, environmental associations, new

market players) (Hirschl, 2008, pp. 144–149). The directive explicitly allowed priority schemes for RES.

Despite this regulatory clarity a heated policy debate regarding RES-E support schemes took place between the European Commission and different actors which gave the start signal for the negotiation process of the RES-E directive. On the one hand, the Commission considered Feed-In Tariffs (FITs) to be distortive state aids, and strove for harmonization based on a Europe-wide green certificate system (Busch and Jörgens, 2012, p. 75). The energy industry lobbied both at national and EU level to promote quota models. On the other hand, the Environment Commissioner, member states such as Germany and Spain (see Chapter 8 by Solorio and Fernandez), as well as large parts of the renewable lobby advocated FITs. The European Parliament as well as the European Council promoted subsidiarity and maintenance of the member states' scope for action (Hirschl, 2008, pp. 299–306). In Germany, the debates started in the mid-1990s, when RES-E expansion successes were already achieved in wind and hydropower. Because of this development, German power utilities and energy organizations tried to exploit European regulation for their interests: they called the European Court of Justice (via the Kiel Regional Court) in 1998 to take action against the Electricity Feed-In Act as they considered it state aid – the ensuing court proceedings (Preussen Elektra vs. Schleswig) extended over a period of three years.

Meanwhile, Directorate General (DG) Competition exerted pressure on the German government and requested the abolition of the compensation scheme of the Electricity Feed-In Act (Jacobsson and Lauber, 2006, p. 265). The German government thereupon proposed a reduction of feed-in rates in 1997, which was welcomed by the ministry in charge of this matter – the German Ministry of Economic Affairs. As a result, German actors, particularly the wind

energy association, sought supporters at the European level and set up a European lobby organization (EREF) in 1999, with the aim of trying to avoid EU harmonization (foot-dragging). On the national level, a broad and unprecedented social alliance ('tailwind campaign' 1997) for RES was formed, including different social groups such as associations, environmental groups, trade unions, and churches (Jacobsson and Lauber, 2006, p. 265; Bruns et al., 2011, p. 370).

German policies for RES support were further strengthened with the new Red-Green coalition which had taken office in 1998 and had committed to the preservation of the German model of FITs (Hirschl, 2008, pp. 257–279). The new German government took over the European Council Presidency in 1999 and thus gained more influence on the Council of Energy Ministers. In this context the German Federal Ministry of Economic Affairs campaigned for the preservation of national support schemes. Moreover, the Treaty of Amsterdam came into force in 1999, strengthening the European Parliament and the principle of subsidiarity.

In the middle of the negotiation process of the RES-E directive, the Renewable Energy Sources Act (EEG) was adopted in 2000, replacing the Electricity Feed-In Act and established a new, pioneering support policy with improved investment security for generators: while under the Electricity Feed-In Act compensation rates were expressed as percentages of average customer tariffs, the new rates were fixed for 20 years. A key regulatory element of the EEG was the distribution of costs from RES-E compensation across all power grid operators on a pro rata basis, calculated on the ratio of RES-E in nationwide electricity sales (Bechberger and Reiche, 2004; Mez, 2009, pp. 386–387).

When the German EEG was adopted in April 2000, the 2001 European RES-E directive was still not in place. However, due to the premature resignation of the European Commission in 1999 and the related personal and jurisdictional change, a more pragmatic course was taken in

the discussion of support schemes (Hirschl, 2008). Thus, Germany was successful in advocating for national scope of action in an uploading, foot-dragging sense.

3.3.2 2001-2006: Autonomous support schemes and FITs diffusion despite resistance

The 2001 RES-E directive eventually presented by the European Commission did not prescribe a harmonized support scheme but obliged member states to create suitable instruments which would help attain concerted, yet non-binding national targets (see Chapter 2 by Solorio and Bocquillon). A few months before, in March 2001, the Advocate General of the European Court of Justice (ECJ) eventually pronounced its decision in the *Preussen Elektra vs. Schlesweg* case, finding that the Electricity Feed-in Act did not constitute impermissible state aid. One year later, DG Competition withdrew its initial objections to the Electricity Feed-In Act and the EEG, also due to the fact that the EEG of 2000 responded to earlier European Commission criticism by setting fixed remuneration rates differentiated according to technology, by setting time limits for the support, establishing degressive compensation for new installations and by defining a biannual monitoring and revision process with the aim of preventing overcompensations (Lauber, 2001; Jacobsson and Lauber, 2006).

Neither the 2001 RES-E directive nor the proclamation of the ECJ caused any further adaptational pressure on Germany. Limited misfit was the result of an uploading or more specifically a foot-dragging process. Both provided a legal backing for the German EEG and its remuneration system in terms of European law (Oschmann and Sösemann, 2007, p. 2). This resolution of legal uncertainties led to a wind power boom and photovoltaic (PV) breakthrough in Germany (Bruns et al., 2011). However, coal and nuclear interests fought the law with renewed vigor, amplified by the German Ministry of Economic Affairs.

Germany's support scheme served as a model for other countries and thus provided for horizontal Europeanization by learning and imitation processes. In 2007, 19 of the 27 member states had adopted FITs as a central support instrument because it turned out to be an effective means to promote RES-E (AEE, 2012). Their horizontal diffusion was triggered by cross-national observation, information and communication of the regulatory reform (Busch and Jörgens, 2012). The role of Germany as a forerunner and norm entrepreneur was supplemented by an active crossloading strategy in order to defend negative externalities resulting from the policies of other member states. During the Renewables Conference 2004 in Bonn, German and Spanish participants founded the Feed-In-Cooperation, a governmentally driven, best practice exchange platform with the aim to establish political support and diffusion of FIT models throughout Europe (Hirschl, 2008, p. 382). This strategy proved to be successful. The European Commission in 2005 concluded that national feed-in systems are typically more effective and efficient than quota systems (Bechberger and Reiche, 2007, p. 34). Formally, the European Commission therefore favored 'coordination rather than harmonization' (COM, 2005a).

3.3.3 2007-2014: Ambitious RES-E targets threatened by instrumental shift

However, the debate about harmonization and against FITs continued. The trade with guarantee of origin certificates for RES-E as well as the idea of a harmonized European quota system, based on the British model (see Chapter 6 by Solorio and Fairbrass), were the most controversial aspects of the draft version of the new renewable energy directive (RED) presented in early 2008. Large energy utilities and market-liberal-minded actors in the European Commission supported this policy. In reaction to the draft, an opposition was formed, particularly made up of countries with established support schemes, the European Renewable Energies Foundation

(EREF), the European Renewable Energy Council (EREC) and various environmental groups. This coalition of actors feared that FITs schemes would have been undermined due to the prescription of trade in certificates of origin, as provided in the European Commission proposal.

In coalition with Spain (see Chapter 8 by Solorio and Fernandez), Germany became active as a defensive forerunner in an uploading, foot-dragging sense. Both states took a strong stance in defending FITs based approaches during the formulation phase of the 2009 RED (Solorio et al., 2014). At a meeting of the International Feed-in Cooperation in spring 2008, German government representatives explained that they were not willing to accept harmonization of support systems in the directive, because this would undermine the viability of Germany's successful feed-in system and similar systems in other countries. Instead they suggested introducing flexibility mechanisms for those member states which insisted they were unable to achieve the targets of the future directive domestically. The German statement was not only supported by Spain, but also by Slovenia, Latvia, Denmark and other member states (Hinrich-Rahlwes, 2013, p. 33). Moreover, two letters influenced the process: The German environmental minister and the Spanish minister of industry addressed a joint letter to the European Commission opposing a European wide tradable green certificate scheme (Bechberger, 2009, p. 700). In addition, in an open letter to the European Commission, EREC criticized the mandatory trading mechanism since it would lead to harmonization and jeopardize the most successful national support schemes (EREC, 2008).

Eventually, Germany's foot-dragging strategy proved to be successful: the content of the 2009 RED implicitly fostered the German support policy. The directive was part of a comprehensive climate and energy package which substantially strengthened the European legal framework for RES (Lafferty and Ruud, 2008; Morata and Solorio, 2012) and resulted in

growing support for FIT (SRU, 2013, p. 161). Despite different individual objectives of the member states and their autonomy to choose distinct implementation instruments, the 2009 RED set the stage for de facto convergence of member state RES-E subsidy policies (Jordan et al., 2010, p. 115).

After the Fukushima incident in 2011, Germany raised its domestic ambitions for a sustainable energy supply. It adopted a (renewed) nuclear phase-out plan and set up an ethics commission which strengthened the necessity of a coherent and effective strategy towards a sustainable energy supply with a high share of RES. Nonetheless, the controversy surrounding numerous details of the national energy transition strategy continued (Geden and Fischer, 2014, p. 26). In the context of the financial and economic crisis in Europe a competitiveness discourse became stronger in Germany, which focused on the pace of RES-E expansion and the respective costs of RES-E promotion (Bundesregierung, 2013, p. 50).

In December 2013, the European Commission reinforced its commitment to regulatory harmonization and opened an investigation into the German EEG of 2012, specifically on the support for energy-intensive companies benefitting from a reduced renewables surcharge (Oxera, 2014; COM, 2013). The revised Environmental and Energy Aid Guidelines presented in 2014 prescribed a concrete governance model: they declared that after a transitional phase and with the exception of small installations, FITs would no longer be permissible state aid, but tendering procedures or tradable certificates would have to be introduced instead (Boscheck, 2014).

Subsequently, the new German federal government (a grand coalition) presented a revised EEG in 2014, which included several restrictive rulings to (supposedly) better control the expansion of RES-E in Germany and the related cost development: limited annual maximum extension corridors for the main RES-E technologies (wind, PV, biomass), a burden on self-

generated and consumed RES-E with the EEG surcharge, a mandatory use of self-marketing from 2016 onwards and the gradual introduction of a tender system. By 2017, the level of the market premium will be determined by a competitive price building mechanism via auctions. The German government provided a fundamental instrumental shift from its former FITs model to a volume-based auction system² (Zengerling, 2014, p. 1; Tews, 2014).

As regards the instrumental design, the revised EEG can at first glance be regarded as a case of top-down, prescribing Europeanization. In the political debate the impression arose that this development did not take place due to national considerations, but that it is strongly dictated by European state aid rules as the European Commission prescribes an obligation to gradually introduce auctions. But it is not clear whether the guidelines actually require opting out of the FITs (Münchmeyer et al., 2014). However, they were a welcome argument for the German government to opt out of FITs in the longer term.

The European Council decision of 2014 on a future 2030 climate and energy package strongly lacks ambition for all three 2030 EU targets (greenhouse gases [GHG], RES and energy efficiency), lacks national binding RES targets and includes only indicative efficiency targets (see Chapter 2 by Solorio and Bocquillon). This step backwards in the ambitiousness of European climate protection policy is likely to lead to top-down Europeanization of the emission reduction targets set as part of the German Energiewende. In view of this and as a defensive forerunner, Germany should have stepped up its uploading efforts at the EU level (Geden and Fischer, 2014; Solorio et al., 2014). As the German government did not take such an approach regarding the recent 2030 framework for climate and energy policies, it can be summarized that it failed to act as a pioneer at the European level in the sense of up- or crossloading its ambitious policy.

3.4 RES-T policy in Germany and its repercussions at the EU level

3.4.1 Tax exemptions in close interaction with the EU biofuels directive

In the context of rising oil prices and growing agricultural surpluses in the 1980s, biofuels appeared on the German agenda as a potential solution to both problems. However, they remained a niche product until the end of the 1990s, developing more as a side effect particularly of agricultural policies on the EU level than through explicit promotion. The situation however changed as of the early 2000s. The Red-Green coalition elected in 1998 increasingly supported RES, particularly for electricity generation, and wanted to extend this support to the transport sector (Beneking, 2011, pp. 55–59).

At the EU level, at the same time, commitments under the Kyoto Protocol were – next to increasing oil independence and supporting domestic agriculture – another motivation for more biofuels support. This led to the proposal of a biofuels directive of November 2001 which suggested biofuel targets for 2005 and 2010 and admixtures of biofuels to fossil fuels. This proposal was accompanied by a proposed amendment of the mineral oil excise tax directive (92/81/EEC) which included an allowance for member states to exempt biofuels from excise taxation by up to 50 percent (COM, 2001). In Germany, however, most biofuels were fully exempt. In order to maintain this domestic regulation, the German Red-Green government pushed for an amendment of the mineral oil tax law that introduced a 100 percent tax exemption for all biofuels – in full awareness of the non-conformity with the aforementioned European Commission proposals.

If adopted this way, the German government would have had to safeguard its new biofuels policy vis-à-vis the EU. Thus, shortly after the German mineral oil tax law was officially amended in a way that established the 100 percent tax exemption for biofuels in early June 2002 (Beneking, 2011, pp. 59–62), the coalition parties decided to work towards the abolition of the proposed amendment of the mineral oil excise tax regulations at the EU level which would have limited tax exemptions to 50 percent (Deutscher Bundestag, 2002). In terms of bottom-up Europeanization mechanisms, Germany's strategy can best be described as foot-dragging: Germany tried to prevent a restrictive mineral oil excise tax legislation which would have led to adaptational costs. To this end, Germany mainly used its blocking power in the Economic and Financial Affairs Council (ECOFIN) – and succeeded rapidly. The amendment of the mineral oil excise tax directive which would have limited the possibility for tax exemptions was scrapped in the ECOFIN Council of 20 June 2002 (Schmitz, 2003, p. 220).

Simultaneously, Germany strategically pushed for a total repeal of both the proposed amendment and the mineral oil excise tax directive as a whole. Instead, it supported the reanimation of the energy taxation directive which was first proposed in 1997 (and pending ever since) and the integration of the regulation of biofuels excise taxes into this directive – which was so decided in the same ECOFIN Council of 20 June 2002 mentioned above (Beneking, 2011, pp. 62 –63). Thus, the issue of biofuels taxation was shifted to another policy arena, which gave Germany more time and space to push for a biofuels taxation regulation. Eventually, the amended legislative proposal of the energy taxation directive of April 2003 included the possibility for member states to completely exempt biofuels from excise taxes (Beneking, 2011).

The biofuels directive was eventually adopted in May 2003. It included only non-binding targets and gave member states leeway regarding the respective instruments, including the

possibility of full excise tax exemptions as allowed for by the energy taxation directive which was finally adopted in October 2003 (see Chapter 2 by Solorio and Bocquillon). This way, there were hardly any adaptational costs on the part of Germany. However, the energy taxation directive included a regulation that requires member states making use of tax exemptions for biofuels to annually report on raw material price developments from 2004 on, in order to justify tax breaks and avoid overcompensation. In effect, Germany had to include an overcompensation clause into its biofuel tax regulation. This proved to be very meaningful in the years to come. Thus, slight traces of top-down Europeanization can be identified here, since the EU prescribed this concrete governance model of avoiding overcompensation and making tax exemptions contingent on price developments – which was, however, in similar form already included in the German regulation on biofuels tax exemptions adopted in 2002.

The German government was able to shape the EU biofuels directive by applying a two-tiered strategy: in anticipation of the looming EU directive, Germany hurried ahead domestically. Simultaneously, Germany made sure that the parts of the proposal not conforming to the new German biofuels policy were scrapped and – by helping to amend the energy taxation directive accordingly – that member states were able to fully exempt biofuels from excise taxes.

Besides this foot-dragging strategy, German biofuels policy was also diffused horizontally: in the years 2004 – 06 tax exemptions were introduced in more than ten member states (Vogelpohl, 2011) – which might not have happened if tax exemptions had been limited by the biofuels directive. Thus, a crossloading of tax exemption models for biofuels took place in the EU (since these models diffused in absence of EU-wide legal harmonization), which may at least partly have been inspired by the successful German model.³ However, the effect of Germany's pioneer biofuels policy should not be overestimated. As Vogelpohl (2011) shows, the

EU biofuels directive had a key impact on the diffusion of biofuels policies in the EU, since it committed member states to substantially support biofuels. The number of instruments available to do so, however, was limited. Tax exemptions were actually the only major biofuels support policy instrument in force in EU member states, most notably and successfully in Germany. Therefore, other member states may have imitated the (not only) German model of tax exemptions as a sort of best practice example for supporting biofuels. The Europeanization mechanism of horizontal learning might apply, since information on an existing policy instrument was available and might have been used by other member states. Nonetheless, the spread of tax exemptions for biofuels in Europe was not actively promoted by Germany. If German tax exemptions for biofuels had a crossloading effect at all, it was unintentional, since Germany did very little to inspire or persuade other member states to implement similar tax exemptions. Germany did not act much as a norm entrepreneur in this case.

3.4.2 Policy change in anticipation of the RED

In 2005, the Federal Ministry of Finance (BMF) submitted the first report on tax exemptions for biofuels, which pointed to a substantial loss of tax revenue because of the dynamic development of the German biofuels market. The BMF therefore proposed to ‘modestly’ charge taxes on biodiesel to avoid overcompensation (BMF, 2005). The proponents of a tax on biodiesel further gained influence after the federal election in Germany in fall 2005, which led to a change of government from the Red-Green to a grand coalition. In July 2006, a gradual introduction of taxes on biodiesel was eventually adopted (Beneking, 2011, pp. 73–78). Furthermore, a quota for biofuels was introduced in October 2006, which was intended to accompany the lowering of tax

breaks for biofuels in order not to jeopardize the overall consumption of biofuels and the targets stipulated by the EU biofuels directive (Beneking, 2011, pp. 78–79). Ever since, companies which place fuel on the market are forced to sell a certain share of biofuel, which rose to 6.25 percent in 2014.⁴ At first glance, these changes in German biofuels policy were adopted without close interactions with the EU level. However, EU subsidy regulations were an argument in the debates about introducing excise taxes on biodiesel. The changes were presented as unavoidable because of the aforementioned overcompensation prescriptions of the EU energy taxation directive (Deutscher Bundestag, 2006).

At the EU level, the non-binding target of 2 percent for 2005 established in the biofuels directive was not achieved (COM, 2006)⁵. Therefore, the EU needed a strategy to overcome the biofuels inertia. In the biomass action plan (COM, 2005b) and the biofuels strategy (COM, 2006) the European Commission obviously hinted at its preference for quota systems instead of tax exemptions. Thus the 2006 changes in German biofuels policy were plausibly influenced by the EU. The German policy changes also took place in anticipation of the forthcoming revision of the EU's biofuels policy. This Europeanization effect can be described as a mixture of two top-down mechanisms: a prescription of concrete institutional and governance models through the EU energy taxation directive and the promotion of changes in the beliefs and expectations through its preference for biofuel obligations. However, it has to be stated that the biofuels policy change in Germany in 2006 mainly emanated from the domestic level. EU influence was supportive of this change, but remained auxiliary.

Simultaneously, German actors tried to seize this opportunity to shape the future EU biofuels policy by promoting the introduction of a mandatory target, sustainability criteria and a certification system. When the biofuel quota was adopted in Germany in 2006 – before the

legislative process at the EU level started in 2008 – it was from the outset planned to be tied to sustainability criteria. In 2007, the German government drafted an ordinance that specified these criteria and how compliance with them could be proved (BMF, 2007). This ordinance, however, was submitted for notification to the Commission, which was just about to start the legislative process of the RED (BMW and BMU, 2007, pp. 49–50). Thus, the Commission postponed the notification of the German biofuels sustainability ordinance for the time being and went on to develop its own sustainability regulations, which were then to be transposed into national law by the member states. These EU sustainability regulations for biofuels presented in the directive proposal of January 2008 (C, 2008; issued only a few weeks after the German draft ordinance) and finally adopted in the RED in 2009, however, were very similar to those the German government had drafted in 2007 (Beneking, 2011, p. 96)⁶.

Thus, by having been – next to the Netherlands and the UK (see Chapter 4 by Hoppe and van Bueren and Chapter 6 by Solorio and Fairbrass) – a forerunner and norm entrepreneur in this respect, Germany was able to upload parts of its domestic biofuel policy to the EU level by offering the blueprint for sustainability criteria and certification. In turn, the implementation costs of transposing the EU system into national systems were almost nonexistent. These elements of bottom-up Europeanization can best be described as pacesetter. Consequently, in September 2009, only a few weeks after the RED was adopted, Germany transposed it into national law and was again able to present itself as the European model student in this context.

The regulation of sustainability is also the area where elements of horizontal Europeanization can be found. Germany was active in crossloading its blueprint sustainability regulation and its implementation in the context of initiatives such as the Renewable Fuels Regulators Club (REFUREC), a pan-European informal network of governmental institutions

responsible for regulating biofuels, or Concerted Action on the Renewable Energy Sources Directive (CA-RES), a dialogue between national authorities responsible for the implementation of the RED, in which participating countries exchange experience and best practices and develop common approaches.

However, Germany's crossloading in this context should again not be overestimated since the cross-national convergence of sustainability regulations for biofuels in Europe did not occur in the absence of EU-wide legal harmonization. In fact, ever since the adoption of the RED, the EU has set the tone for biofuels policy in Europe and leeway for autonomous decisions at the domestic level is considerably restricted. The main issues that have been discussed concerning the EU biofuels policy in recent years – their (contested) sustainability and, consequentially, whether to expand the sustainability criteria and/or to lower the binding sectoral target for biofuels or not – are therefore both regulated and decided on at the supranational level through the RED.

3.5 Comparative analysis and conclusion

Comparing the evolution of German RES-E and RES-T policy and their repercussions with the EU level, one can see several similarities, but also some interesting differences. As regards the similarities, Germany in both cases largely autonomously adopted a pioneering role in promoting RES and was, over a long time period, essentially able to safeguard the routes taken against interferences or harmonization efforts from the European level. Thus, both cases are – in general – similar as regards the Europeanization mechanism, which can best be described as foot-dragging. More than uploading the pioneer policy at the supranational level in the sense of pacesetting, Germany managed to fend off EU-wide harmonization against its own domestic

policy approach with the goal of avoiding potential adaptational costs.⁷ Although much more intentional in the case of RES-E than in the case of RES-T, this strategy of foot-dragging at the supranational level in both cases has been accompanied by processes of horizontal Europeanization, for example a crossloading of the German national pioneer policy to other EU member states (in the absence of EU-wide legal harmonization). Despite these similarities, clear differences between the two cases can also be identified as regards mechanisms and extents of horizontal Europeanization: the German model of RES-E promotion via fixed FITs has been much more commonly adopted in other EU member states than the German model of RES-T promotion via tax exemption. Thus, the pioneering and crossloading role of Germany as a norm entrepreneur was significantly stronger in RES-E policy than that in RES-T policy.

Another important difference between the cases concerns the continuity of the policies. Whereas FITs for RES-E have been successfully defended by their advocates against the attacks by proponents of a quota system up to 2014, tax exemptions for biofuels were abandoned in favor of a quota system in 2006 under the pressure of the mineral oil and automotive industries and the German ministry of finance. In both cases, however, the European Commission has expressed a preference for quota systems. In the case of biofuels, the advocacy coalition for quotas was strong enough to successfully promote them as the superior instrument to reach higher biofuel shares in a cost-effective way. In the case of RES-E, resistance powers in favor of FITs were, until very recently, strong enough to defend this incentive instrument. Thus, whether the European Commission's preference materializes in Germany or not, strongly depends on domestic factors like the resistance powers of opposing coalitions.⁸

Despite these differences, new analogies can be observed as well. Very recently the EU regained influential power over German RES-E policy as well, and a new convergence is

becoming apparent. As shown in Section 3.3, the new EU state aid guidelines were used as a pretext for a shift in the support scheme in the latest EEG revision of 2014. Whereas in RES-T policy competencies have gradually shifted from the domestic to the EU level since the mid-2000s, German RES-E policy only seems to develop in a similar direction since very recently.

To come back to the question of whether Germany can be considered as a pioneer regarding its renewable energy policy, we can conclude that it at least was a pioneer, both in the RES-E and in the RES-T sector. It is conspicuous, however, that in both cases the German government eventually adapted its policies to EU pressures. Admittedly, these pressures have to be put into perspective, since domestic factors, such as the stance of the ministry of finance and the ministry of economic affairs or the increasingly politicized impact of costs, certainly still played a major role. Nonetheless, it is striking that Germany, despite having been a forerunner in renewable energy policy and an important veto player in the sense of foot-dragging at the supranational level, at least partly has been Europeanized from the top-down. Thus, top-down Europeanization seems to be stronger than appears at first sight, even in areas like renewable energy policy where EU competencies have emerged relatively late and only gradually as well as in 'least likely cases' of top-down Europeanization such as Germany.

While recognizing that an integrated European approach is required, this is at the same time associated with significant risks since European climate and energy policy seems to be losing its dynamic – a situation in dire need of a pioneer able to motivate hesitant states towards adoption of an ambitious policy. Even though it might seem unlikely in the light of the most recent policy decisions, it would be desirable also from a European perspective if Germany were to restart its efforts to pursue ambitious domestic energy transition policy, thereby possibly

resuming its pioneering role and its successful approach of simultaneously foot-dragging on the supranational and crossloading on the horizontal level.

Notes

¹ Except for the wind energy sector, however, the individual tariffs were not sufficient for other RES-E to reach market entry.

² According to first analyses of these important changes, clear risks arise of missing the national RES goal for 2020 as fixed within the EU 2009 RES directive (Nitsch, 2014, p. 11), of reduced value chain effects and job losses (Hirschl et al., 2014, p. 26.; Zengerling, 2014, p. 17; Geiser and von Oppen, 2014, p. 3).

³ The introduction of the comprehensive tax exemption triggered a 'biofuel boom' in Germany from 2004 to 2007, when the share of biofuels in the total transport fuel market rose from 1.8 percent to 7.4 percent.

⁴ These policy changes had considerable effects on the German biofuels market. In stark contrast to the previous development, the overall share of biofuels in the German fuels market shrank for the first time in decades (from 7.4 percent in 2007 to 6.0 percent in 2008). Ever since, the sales of biofuels are almost entirely dependent on the quota level (Vogelpohl, 2014).

⁵ Germany, in this context, was the European model student, having exceeded the target by a large margin.

⁶ In both cases, sustainability criteria are related to GHG savings, a ban of raw materials from certain areas (such as land with high biodiversity value or protected areas) and certain agro-environmental practices ('cross compliance' and 'good agricultural practice'). Also in both cases, compliance with these criteria is to be proofed via certification systems recognized by

state authorities. For a closer comparison see Sections 1 and 2 of the German draft ordinance (BMF, 2007) and article 17 and 18 of the RED directive.

⁷ With the notable exception of the ‘upload’ of the system of sustainability criteria and certification for biofuels.

⁸ In the cases at hand, the design of the domestic support scheme played an important role.

Whereas tax exemptions for biofuels directly burden the state budget, FITs for RES-E pass on the costs directly to consumers – just like quotas do in the case of RES-T. Therefore, the German federal ministry of finance was a major opponent of tax exemptions for biofuels – and thereby an important supporter of the European Commission’s preference for quota systems – whereas it was more or less neutral in the case of FITs for RES-E.

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4. From frontrunner to laggard: the Netherlands and Europeanization in the cases of RES-E and biofuel stimulation

Thomas Hoppe and Ellen van Bueren

4.1 Introduction

The Netherlands has long cherished its reputation of compliance with EU policies and directives, often playing an initiating role (Van der Heijden et al., 2014). In the 1990s the Netherlands was famous for its integrated environmental policy, which aimed to address causes in addition to effects. However, the progressive environmental policies of the 1990s (under ‘purple’ coalitions) were replaced by restrictive policies of right-wing government coalitions, which came into power after 2001 (with the exception of the rather progressive 2007-2010 coalition). By 2013 the Netherlands had become a laggard in environmental policy, scoring 42nd position on the Climate Change Performance Index 2015, just ahead of the United States (position 44) and China (position 45), leading only Estonia (position 46) of all EU member states (Burck et al., 2014). Moreover, facts and figures on the share of renewable energy sources (RES) for electricity (RES-E) and the share of biofuels as RES in transport (RES-T) were disappointing compared to the EU ambitions as reflected in the RES-E and biofuels directives and the achievements of other member states.

In this chapter we reflect on how this occurred, set against Europeanization processes. The main research question in this chapter therefore is: How did Europeanization processes – in particular bottom-up processes leading to harmonization of national policies, top-down processes of domestic transposition and implementation of EU policies, and horizontal processes of

bilateral policy transfer and diffusion – shape the development of Dutch renewable energy policy as well as EU one?

Section 4.2.2 presents the main analytical concepts and methods used. Section 4.3 presents the RES-E case, and Section 4.4 the biofuels case. Each of the cases starts with a general introduction, followed by a description of the period before and after the establishment of the EU directive and the relevant Europeanization processes. Finally, in Section 4.5 the Europeanization processes are compared and assessed to address which of the Europeanization processes affected the formulation of domestic and EU policies and the selection of policy instruments.

4.2 Analytical underpinnings and methods

4.2.1 Models of Europeanization

Based on Börzel and Risse's work, Europeanization is defined as the processes and mechanisms by which European policymaking may lead to change at the domestic level (Börzel and Risse, 2000, p. 3). In this chapter we focus on three models of Europeanization: (1) top-down Europeanization, (2) bottom-up Europeanization, and (3) horizontal Europeanization (see Chapter 1 by Jörgens and Solorio).

Top-down Europeanization addresses the adoption and implementation of EU directives in member states' domestic policies. This model is characterized by a three-step process (Caporaso, 2007), starting with the EU generating some sort of impulse for domestic change (e.g. the EU renewable energy policy). Subsequently, this leads to adaptation pressure, which is

mediated by domestic factors, finally producing an outcome at the national level. Besides changing domestic policy from the top down, it is of interest to analyse whether EU directives have helped change the 'rules of the game' in favour of RES in national energy policies. Another key element of the impact of the EU renewable energy policy is the influence it has had on the positions of the different national actors in the energy sector. Bottom-up Europeanization is used by member states (like the Netherlands) to 'maximize the benefits and minimize the costs of European policies' (Börzel, 2002, p. 96). They can try to 'upload' policies to the European level, attempting to influence EU policymaking to protect national interests. The horizontal Europeanization model is based on a decentralized, voluntary, information based process of cross-fertilization of ideas and policies between EU member states. This process of voluntary convergence towards common policy goals may be loosely coordinated by European institutions, but it may just as well emerge from uncoordinated processes of bilateral imitation and learning between member states. The concept of horizontal Europeanization draws from a body of empirical research into comparative politics and international relations, which shows that growing economic and political interdependence leads national governments to increasingly orient their domestic policy choices towards the previous choices of other governments. These processes, often labelled processes of 'policy diffusion', 'horizontal policy learning' or 'policy transfer', have received increasing attention in recent years (Jörgens et al., 2014; Busch and Jörgens, 2012a, 2012b; Simmons et al., 2008; Bulmer and Padgett, 2005; Simmons and Elkins, 2004).

4.2.2 Methods

Data collection relied mostly on secondary sources, such as academic journal articles, book chapters, conference papers, records (fiches) of EU discussions, reports (by central government agencies, non governmental organizations [NGOs] and advisory committees involved in policymaking processes at the EU level) and online multimedia. When key information could not be retrieved from secondary sources, experts were contacted (from central government, advisory committees involved in policymaking processes at EU level, and at universities). Data were analysed in an interpretive manner. The research design used in this study concerned a comparative analysis of two case studies: green electricity (RES-E; 2001/77/EC; 2009/28/EC) and biofuels (2003/96/EC; 2009/28/EC; 2009/30/EC).

4.3 Green electricity (RES-E) case study

4.3.1 The period prior to the 2001 RES-E directive

The Dutch electricity system is best described as a fossil-based thermal system, dominated by inexpensive natural gas and coal as main production sources (Arentsen, 2009). Energy infrastructures, technologies, regulations and ‘innate’ user preferences resemble this dominant natural gas system, with big utilities in the lead. The national electricity grid system is well-developed and among the most reliable in Europe. Thanks to many good crossborder connections, the high voltage grid is well integrated into the European transmission network (Arentsen, 2009). Since the 1970s, following the oil crises, multiple RES-E technologies have been developed and adopted, notably wind power, solar power, and bioenergy. By 1990 RES accounted for 1 percent of total electricity consumption in the Netherlands. In 2001 (when the

RES-E directive 2001/77/EC was implemented) this had risen 2.98 percent, climbing to 9.98 percent by 2014 (11.79 billion kilowatt hour [kWh]; CBS, 2016). Since 2013 the share of RES in electricity consumption (10.39 percent) had declined slightly (CBS, PBL and Wageningen UR, 2016). Domestically produced RES-E mostly derives from wind (4.92 percent) and biomass sources (4.31 percent; CBS, 2016). Large-scale uptake of wind energy has been stimulated by central government since the 1990s, but has had a difficult history in terms of policy implementation, as state policies were poorly designed, omitting local communities in the policymaking processes, which led to substantial problems in the implementation stages. In the 1990s, for instance, less than half of the targeted 1,000 megawatts (MW) goal was actually established (Hofman, 2005). To a great extent this was due to a neglect of social and cultural factors in policymaking and implementation (Wolsink, 1996; Arentsen, 2009). Regarding electricity from biomass conversion, the two methods most used are waste incineration plants and co-firing of biomass streams in electricity generation plants (Hofman, 2005). The use of biomass matched very well with the existing electricity infrastructure and power relationships between the key actors in the sector. Moreover, waste as a renewable resource contributed to the business case for coal-firing plants. Co-firing biomass was considered a much cheaper option than switching to natural gas to meet carbon dioxide (CO₂) emission standards (Verbong and Geels, 2007).

Europeanization first began to play a role in the 1990s. Following the 1992 Maastricht Treaty, the European Commission decided to push for the liberalization of the energy markets (Verbong and Geels, 2007, see also Chapter 2 by Solorio and Bocquillon). The Netherlands became one of the forerunners in this process and Europeanization was much more focused on this process than on the upcoming RES-E directive. In anticipation of two new electricity acts,

privatizing and liberalizing the electricity market and opening it up to distribution firms, distribution companies had become much more customer oriented. This also favoured the marketing of RES-E (Hofman, 2005). Following the 1995 Third National Energy White Paper with its ambition of 10 percent of RES in 2020, several government policies were launched to promote the use of (the more expensive) RES-E, such as the green certificates granting fiscal and marketing advantages to users (Dinica and Arentsen, 2003), and voluntary agreements between central government and the energy distribution sector on targets for green electricity sales – targets that were never met (Van Rooijen and Van Wees, 2006).

Furthermore, regulatory changes were made. In 2001, the market for green electricity was liberalized, well in advance of the market for ‘grey’ electricity which was not liberalized until 2004. To support the competition of RES-E with non-RES-E, central government introduced an energy tax from which customers of green electricity were exempted (Van Rooijen and Van Wees, 2006). However, the instrument had a negative side effect. Domestic RES-E production capacity could not supply the steeply rising demand for green electricity. Foreign RES-E was eligible and domestic production could not compete with the cheap RES-E produced in power stations that had already been written off in other European countries (Agterbosch et al., 2007). This was partly due to the well-established crossborder grid connections, which facilitated the import of green electricity (Verbong and Geels, 2007).

By 2001, despite the policy efforts, less than 3 percent of total Dutch electricity consumption originated from RES. An important explanation for the slow uptake of RES-E can be found in the prolonged, massive resistance of the Dutch electricity sector to the introduction of RES-E (Hofman and Marquart, 2001). With the active support of the Ministry of Economic Affairs, the sector had long focused on large-scale, centrally produced fossil and nuclear power

(Arentsen, 2009). Moreover, environmental policies focused on the reduction of energy consumption. The more decentralized production of RES-E did not match well with the sector's structure, organization and ambitions (Arensten, 2009).

4.3.2 The 2001 RES-E directive and its impact

The Netherlands played a rather active and progressive role in the negotiations in the run-up to the establishment of the 2001/77/EC RES-E directive (Rowlands, 2005). Compared to national policy goals, the directive represented a reduction of the share of RES-E in total domestic electricity consumption. National policy was designed (following the 1995 Third National Energy White Paper) to achieve approximately 17 percent RES-E in total electricity consumption by 2020 (Ministerie van Economische Zaken, 1995), whereas the directive's goal was to achieve 9 percent by 2010. The 2001 RES-E target was therefore not considered a problem, particularly because the text of the directive recognized several types of wastes as biomass, so the directive was not considered a threat in the Netherlands, with its rapidly increasing capacity from co-firing and combined heat and power (CHP) plants (which allowed for co-firing and the incineration of vast amounts of biomass 'waste' streams). During the negotiations, however, the Netherlands did push for additional waste streams in the directive's definition of RES. This (proposed by the European Commission) was contested by the European Parliament. In terms of Europeanization it is fair to state that the Dutch national government considered the RES-E target allocated by the EU to be fair and held to this goal during negotiations with the EU. At the same time, however, the Netherlands actively engaged in EU discussions to amend the directive to protect national interests, in particular those of the domestic energy and waste sectors. Hence, bottom-up Europeanization occurred to some extent. The top policy priorities for the Netherlands remained

establishing the security of supply, a liberalized energy sector, and increasing energy saving efficiency, though.

Following the implementation of the 2001 RES-E directive, the 1998 National Electricity Act was amended twice to facilitate its implementation. The first amendment concerned the establishment of mechanisms supporting national energy production from RES. A switch was made from (expensive and ineffective) demand-oriented policies to supply-oriented ones (Arentsen and De Bruijn, 2005; Van Rooijen and Van Wees, 2006). A second amendment followed in 2004, replacing 'green certificates' with 'guarantees of origin'. Besides regulations, key policy instruments that were used following implementation of the 2001 directive concerned a covenant (between national government and energy companies) to cut CO₂ emission by 3 million tonnes via co-firing of biomass in electricity generating plants, subsidy schemes (promoting investment in local RES-E production), and tax exemptions. National government also fiscally supported the importation of RES-E. Moreover, the Dutch national government had already liberalized the RES-E market in 2001, whereas the market for 'grey' electricity was only liberalized in 2004 (Kenniscentrum InfoMil, 2014). Whereas demand creation for RES-E was relatively successful in the Netherlands, the creation of a (domestic) supply was less successful. RES-E was bought cheaply from (already written off) RES-E producers in other EU member states, which already had progressive supply-driven policies for RES-E production. As a consequence, there was an uneven playing field between Dutch RES-E suppliers and those in other EU member states. In order to stem the tide and to harmonize with other EU member states (in which domestic RES-E supply was stimulated), the Dutch government decided to implement Feed-In Tariffs (FITs) (Agterbosch et al., 2004). This can be viewed as a giving in to pressure by peer member states, and hence as a form of 'horizontal Europeanization'.

In 2002 a FIT was introduced in the form of a scheme to support domestic production of RES-E (known in Dutch by the acronym ‘MEP’; in English: ‘scheme on environmental quality of electricity production’). This provided entrepreneurs with a fixed compensation (per kWh) for domestically produced RES-E with a guarantee for ten years (Agterbosch, et al., 2004). The MEP scheme came into force in the summer of 2003.

However, the MEP subsidy scheme was terminated three years later, in August 2006. The scheme had been very popular, but was open-ended and therefore very expensive. The government coalition claimed that in the absence of the scheme the RES-E goals would also be achieved by 2010, and decided to end the subsidy scheme prematurely (Kern and Smith, 2008). The scheme was judged to have “succumbed to its own success” (Koppejan and Van Est, 2011, p. 33). The abolition of the MEP scheme, with the reduction of investment risks as one of its central aims, led many potential investors to distrust Dutch central government, and RES-E production growth slowed significantly. Moreover, until 2006, Dutch renewable energy policies were considered opaque, confusing and lacking in long-term security due to the numerous policy instruments and the many changes in the details of these policies (Agnolucci, 2007; Arentsen et al., 2007). By 2006 the share of RES-E in total domestic electricity production was 6.5 percent (Arentsen, 2009), and RES-E and RES in general had not become (national) electricity policy priorities (Kern and Smith, 2008). In sum, the contribution of the RES-E directive to domestic RES-E policy had been relatively small, as there was little EU pressure on the Netherlands, and only few domestic policies were actually changed by it.

4.3.3 The 2009 RED and its impact

During the negotiations in the run-up to the third EU energy package and the 2009/28/EC renewable energy directive (RED), the Netherlands was involved in a different way than during the negotiations on the 2001 RES-E directive. EU pressure was considered more seriously, and a defensive ‘bottom-up Europeanization’ approach was taken to protect the interests of the Dutch electricity sector. Although the Netherlands supported the EU 2030 goals and the development of a broader institutional framework (e.g. greater collaboration between EU member states and greater harmonization), it did stress the importance of subsidiarity and the comparative cost advantages of energy production (not surprisingly emphasizing the importance of natural gas and trying to get this issue explicitly on the EU policy agenda). Responsibilities were considered to be organized best at national level and with stakeholders (Netbeheer Nederland, 2009). The Dutch RES objective was to achieve a 16 percent RES share of total energy consumption by 2020. Not much later, this goal was re-negotiated to 14 percent in 2020: the 16 percent target was to be attained by 2023.

Following the announcement of the 2009 EU RED, the Netherlands, in common with other EU member states, formulated a National Action Plan (NAP). This, however, was to a great extent based on previous Dutch (environmental and energy) programmes emphasizing clean energy, energy savings, and renewable energy (in Dutch: ‘Schoon en Zuinig’, ‘Nieuwe Energie voor Klimaat’), which had already been adopted in 2007 by the Dutch government, in part as a response to a revived attention to climate change. The directive was well-aligned with domestic renewable energy policy. The main policy instrument of the NAP concerned a support scheme for sustainable energy production (known under the Dutch acronym ‘SDE’), which used a FITs to support the production of renewable energy – including RES-E, heat and biogas. The SDE scheme basically replaced the already abolished MEP scheme.

To a great extent the NAP actions continued already existing programme actions, contributing to deregulation and the lowering of entrepreneurs' administrative costs, which was in line with the right-wing character of successive central government coalitions. Although the SDE scheme and its successors were launched with great expectations, they were considered to be only little effective in encouraging the large-scale domestic uptake of RES-E technology. Moreover, the national government's RES-E support policies met with substantial criticism and experienced difficulties during implementation (e.g. lack of local support for the planning of wind parks [Wolsink, 1996]; many economic, regulatory and social barriers blocking wide-scale uptake of biogas installations [Hoppe and Sanders, 2014]). By 2016 progress in national policy implementation was not on track to attain the country's assigned contribution to the EU's 20-20-20 goals (ECN, PBL, CBS and RVO.nl, 2016).

Besides central government being subjected to EU directives (e.g. 'top-down Europeanization') and policy trends diffusing from other member states (e.g. FIT; 'horizontal Europeanization'), decentralized governments also experienced forms of Europeanization. Provincial governments adopted policies originating from other regional government member states (e.g. the Province of Overijssel adopted a competition programme to spur RES-E production by local communities based on best practices in Germany and Denmark: Warbroek and Hoppe, in press, see also Chapter 3 by Vogelpohl et al. and Chapter 5 by Dyrhaug), and local government public officials and civil servants participated in excursions to best-practice, low-carbon communities in other member states, to learn about policies and management strategies that worked and that they could potentially adopt themselves (e.g. lessons from the best-practice low-carbon community of Saerbeck in Germany, which attracted 'local energy policy tourists' from all over the World [Hoppe et al., 2015]). This form of 'horizontal

Europeanization' has undoubtedly contributed to a great number of local governments and provinces adopting progressive policy agendas promoting RES-E. In turn, this has contributed to local capacity building, in particular in relation to the establishment of many low-carbon citizens' initiatives throughout the Netherlands. Between 2007 and 2011, more than 300 local energy cooperatives were established (Oteman, Wiering and Helderma, 2014). Some of them started to collaborate with peers from other EU member states in EU funded projects (see also Interreg and Horizon, 2020) which in turn led to some form of (horizontal and top-down) Europeanization.

In summary, there are three important explanations for the complicated relation between the Netherlands and Europeanization in the field of RES-E. The first is that in terms of Europeanization, the Dutch focus was much more oriented towards complying with the electricity directives aimed at market liberalization than on complying with the RES-E. This relates to a second reason, that in Dutch electricity policy, energy saving and energy efficiency were for a long time preferred to the production and consumption of RES-E – policy goals that were strongly supported by incumbents in the energy sector, and 'locked in' by the natural gas lobby, which dominates the Dutch energy system. A third reason is that renewable energy policy, including the development of support mechanisms to achieve the RES-E targets, was subjected to the strong political volatility in the Netherlands since 2001. In terms of 'uploading', the Netherlands can be characterized as a fence-sitter, not particularly interested (any longer) in setting the agenda for RES-E, while making sure that the ambitions of the directives would remain modest and within reach. In terms of 'downloading', some important regulatory amendments were passed to comply with the directives. Moreover, broad national regulatory frameworks were already in place to facilitate the smooth implementation of EU directives. In

terms of ‘horizontal Europeanization’, the Netherlands was at the receiving end, adopting policies like the FITs at state level, but also adopting other policies and best practices at regional and local government levels. Finally, we can state that the EU directives did not much influence the ‘level playing field’ of the electricity sector, as the incumbent actors (centralized energy producers and grid operators) did not experience any loss of influence, nor power.

4.4 Biofuels case study

4.4.1 The period prior to the 2003 biofuels directive

Just like RES-E, the development of biofuel markets in the Netherlands has proved rather problematic. Since the 2003 EU biofuels directive (2003/30/EC) was issued, biofuels gained a great deal of attention. However, despite policy schemes, tax exemptions, and several experiments, the development of biofuel markets in the Netherlands has remained rather limited as compared to other EU member states like Germany and France (see Van der Laak, Raven and Verbong, 2007, see also Chapter 3 by Vogelpohl et al. and Chapter 9 by Bocquillon and Evrard). Biofuels have been consumed in the Netherlands since 2005, notably in the transport sector. Biofuels demand basically stopped growing after a steep take-off in the period 2005-07 (from 0 to 13 PJ/yr). However, in 2012, still only 13 PJ of biofuels were consumed in the domestic transport sector. In 2012, 5 percent of energy consumed in the sector stemmed from RES, and more than 90 percent of those renewable sources were processed into biofuels (Planbureau voor de Leefomgeving et al., 2014b).

Biofuels development in the Netherlands started in the early 1990s. The European Commission has been supporting biofuels through research and development (R&D) projects for more than two decades, aiming to create a new market for biofuel crops for the declining agricultural sector (Van der Laak et al., 2007). In addition, the EU proposed to support biofuels with generic tax exemptions (Suurs and Hekkert, 2009). In the Netherlands, small entrepreneurial experiments were organized with policy support and finance from the EU and Dutch regional governments. Although the experiments were technically successful, economic returns were disappointing. A major limitation was the scarcity of land to grow biofuel crops: c.f. 'first generation biomass' (LEI, 2005). Nevertheless, domestic developments continued, driven by the preparation of biofuel-related EU policies (Hillman et al., 2008). During the late 1990s, first-generation biofuels were criticized by scientists, engineers and environmental non-governmental organizations (NGOs) for being too expensive, even in comparison to the alternative of co-firing them in generating plants, and with only a very modest environmental performance. Central government refrained from action, mainly because it was internally divided on the alleged benefits and drawbacks of first-generation and second-generation biofuels, with different ministries and groups of stakeholders involved (Suurs and Hekkert, 2009). As a consequence, market parties did not undertake much action to spur further biofuel development. In 1998, following the EU White Book, the political attention to climate change led to a window of opportunity for the development of biofuels, which were seen as an important way to lower greenhouse gas (GHG) emissions. A policy support programme on low CO₂ content gases and fuels was issued in 1998 (entitled 'GAVE'; Suurs and Hekkert, 2009). The programme assessed multiple biofuel options and prioritized second-generation biofuels with a high potential for CO₂ reduction. The programme supported innovations in fuel production, improved supply chain

collaboration, and a demonstration project (Hillman et al., 2008). At the time, Dutch central government was not in favour of a progressive biofuels policy, and neither was public opinion. Advocates of biofuels policy were more commonly found in industry, where biofuels were seen as an important international growth market (Koppejan and Van Est, 2011).

4.4.2 The 2003 biofuels directive and its impact

During the negotiations running up to the biofuels directive the Netherlands did not actively push to lower the 5.75 percent biofuels consumption target (to be achieved in 2010). It just complied with the indicative, non-binding target that applied to all member states. Nonetheless, the Netherlands was in favour of supporting second-generation biofuels. The 2003 biofuels directive implied that there would be less attention (by policy makers and investors) to the second-generation as compared to first-generation biomass. Policy would focus on the latter, which was considered attractive to countries with large agricultural regions such as Germany and France (but not the Netherlands; Suurs and Hekkert, 2009; see also Chapter 3 by Vogelpohl et al. and Chapter 9 by Bocquillon and Evrard).

In a 2004 White Paper on Transport Emissions, the Dutch national government expressed its preference to delay implementation in favour of the second-generation biofuels, which were expected to be more efficient in terms of carbon emission reduction and costs (Rijkswaterstaat, 2014). The 2007 target of a 2 percent share of RES in the transport (RES-T) sector (and 5.75 percent in 2010), as stated in the biofuels directive, would therefore not be met. By 2005 the EU warned the Netherlands (and 19 other member states) that (national) implementation of the 2003 EU directive was behind schedule, and that national government should intensify its efforts to

attain the 2 percent target. Besides pressure from the EU, the national government's biofuels policy was also criticized in the Netherlands. The national parliament and the industry argued that the national biofuels policy in the Netherlands was "insufficient and little ambitious" (Koppejan and Van Est, 2011, pp. 36-37).

A generic tax exemption (excise duty) was temporarily issued in 2006, while the sector lobbied for a long-term tax exemption at EU level. In 2007 the temporary exemption was replaced by a regulation that made it mandatory for gasoline and diesel distributors to blend a minimum percentage (2 percent) of biofuels into diesel or gasoline, favouring first-generation biofuels which were definitely needed to comply with the EU targets ('Besluit biobrandstoffen wegverkeer' in Dutch; Koppejan and Van Est, 2011). Distributors of gasoline and diesel could produce and sell biofuels themselves, but were also allowed to meet the target by purchasing biofuels produced by others. In the latter case, administrative trading of biofuels took place by issuing so-called 'bio-tickets' (RVO.nl, 2014a). The 2003 EU biofuels directive gave the domestic market an impetus, and regional entrepreneurs started to implement plans for the construction of small biofuel plants. Besides central government, a few regional governments also embraced biofuels, in particular for lowering GHG emissions and regional economic interests (Van der Laak et al., 2007).

Meanwhile, the Dutch government did not abandon second-generation biofuels. From 2006-14, a 60 million Euro R&D program was available for the development of second-generation biofuels (Suurs and Hekkert, 2009). At the time first generation biofuels were merely considered a 'stepping stone' towards future use of second-generation biofuels (Suurs and Hekkert, 2009). From 2006 to 2008, criticism of the distributive and environmental effects of first-generation biofuels revived. Rather than using first-generation 'edible' oil crops, biofuels

were to be produced from local green waste streams, hence second-generation biofuels. National government also succeeded in getting concerns on first-generation biofuels on the policy agenda, as expressed in the 2004 White Paper on Transport Emissions. This led to a system of sustainability criteria incorporating CO₂ reduction potential and land use effects of particular biofuel chains, a system which – at a later stage – would also be adopted by the EU in the RED and the Fuel Quality Directive (in which the sustainability criteria for biofuels would even be lower than those in the Netherlands; Koppejan and Van Est, 2011). The idea was that information on biofuel quality would be presented to end consumers via a certification system.

Following a political debate in the national parliament ('Motie Spies'; Kamerstukken II, 2007/08, 31 200 XI, nr. 38), a call was made to intensify the use of second-generation biofuels under the co-blending policy by increasing the weight of second (and third) generation biofuels (also on the condition that at least a 35 percent reduction in GHG emission would be established) as compared to first-generation biofuels. This led to the development of the so-called 'double count' scheme, which was later implemented in 2009 ('Regeling dubbeltelling' in Dutch; Tweede Kamer, 2008). The 'double count' meant that second-generation biofuels with high environmental performance – including a CO₂ reduction of at least 35 percent – were assigned a higher weight in biofuel registration (RVO.nl, 2014a). During the development of the national double count scheme the Minister of the Environment pushed for progressive standardization at EU level (pushing for higher standards than 35 percent GHG emission reduction). At the same time, the European Commission was also preparing a 'double counting' scheme. The Dutch Minister pushed for stricter sustainability criteria in this scheme and strongly supported harmonization on the issue. She succeeded, and the EU later tried to spread the instrument to other EU member states. The 'double count' case illustrates the 'uploading' of a Dutch policy

initiative to the EU level (although at the time the EU was also making preparations regarding the instrument).

Due to criticism of the alleged sustainability quality of (first-generation) biofuels and the national implementation of the double count scheme, a calculation was done that resulted in a lowering of the national target of 5.75 percent (the 2003 EU directive target) to 4.00 percent in 2009 (Staatsblad van het Koninkrijk der Nederlanden, 2009). Implementation of the so-called ‘double count’ scheme, however, proved to be a rather effective incentive that led to the early adoption of waste-derived biofuels. By 2012 almost 25 percent of the total Dutch biofuels market was based on wastes and residues, a substantially higher figure than in most other member states (NEa, 2012; Van Grinsven and Kampman, 2013). Moreover, ‘double counting’ of biofuels (notably in biodiesel produced from wastes and residues, such as used frying fat) accounted for nearly 70 percent of RES-T consumption (Planbureau voor de Leefomgeving, CBS and Wageningen UR, 2014b). Later, the scheme was subject to domestic criticism, in particular by the committee advising the Dutch national government on EU biofuels policy (the ‘Corbey Committee’ named after the Dutch delegate in EU biofuels policymaking).

4.4.3 The 2009 RED and FQD and their impact on Dutch biofuels policy

In pursuing the adoption and harmonization of the double count scheme, the Netherlands played an active role in the negotiations running up to the 2009 RED (2009/28/EC) and the Fuel Quality Directive (FQD, 2009/30/EC). It actively stressed the importance of sustainability (ILUC and FQD) criteria in biofuels certification systems and policy. The sustainability criteria in the RED were a ‘direct result of Dutch efforts in the negotiations’ (Koppejan and Van Est, 2011, p. 38).

Implementation of the RED and FQD meant that the national biofuels regulations (2007) were replaced. Regulatory enforcement was assigned to the Dutch Emission Authority. RED and FQD (as administrative policy schemes) were attached to the Dutch Environmental Policy Act. The RED basically continued the blending goals: 4.25 percent by 2011, 4.5 percent by 2012, 5 percent by 2013 and 5.5 percent by 2014. Moreover, biofuels sold by fuel providers were to meet European sustainability standards, which were to be verified by independent auditors. Besides fuels, fuel providers were also allowed to account for biogas and green electricity; different weights applied (RVO.nl, 2014b). By 2020 a 6 percent reduction in GHG intensity was to be achieved, mainly via biofuels (NVDB, 2014). The use of 'bio-tickets' was maintained (RVO.nl, 2014b).

In the years after issuing the RED and the FQD, the Dutch national government actively engaged in EU debates on biofuels in order to resolve uncertainties regarding certification, reporting, and ILUC standards (Commissie Duurzaamheidsvraagstukken Biomassa, 2010). Other issues were not to increase the target for co-blending of biofuels in transport fuels, to make current policies and certification systems stricter in the use of the ILUC criteria, to await the results of the 2014 evaluation of the 2009 EU directives (instead of formulating a progressive domestic biofuel policy), and to continue supporting second-generation biofuels use (Commissie Duurzaamheidsvraagstukken Biomassa, 2012). Hence, the Netherlands remained actively involved in EU discussions on biofuels, trying to modify EU policies.

In sum, the 2003 EU biofuels directive spurred the development of the biofuels market in the Netherlands for nearly four years. At the time, a national debate on sustainability criteria for biofuels ensued, which led to the development and implementation of a progressive 'double counting' scheme in support of second-generation biofuels. In addition, this initiative was even

successfully ‘uploaded’ to the EU. The Netherlands would remain actively involved in EU discussions on the environmental quality and sustainability of biofuels, and succeed in getting sustainability criteria in the RED. Compared to the 2003 biofuels directive, the implementation of the 2009 RED and FQD was much less effective. Basically, no market development (in terms of growth in volume) in the Netherlands was established in the period following implementation of the two directives. To a great extent this related to uncertainties in how (the formulation of) EU policy would have an impact on the domestic biofuels market. As a consequence, the Netherlands adopted a ‘wait and see’ strategy in EU discussions, but did continue efforts at EU level to support the adoption of measures in favour of second-generation biofuels.

4.5 Conclusion

The two cases show that Dutch renewable energy policies have been far from consistent over the past two decades. RES-E and biofuels were not priorities in Dutch energy policies, which focused on market liberalization, security of energy supply, and energy savings. Negotiations with the EU on the targets to be achieved mostly aimed to minimize the impact on the Dutch stakeholders in the energy and waste sectors. Despite the regulatory changes resulting from the directives, there has been no redistribution of resources or power among the key stakeholders in the energy domain. In both cases, all three forms of Europeanization were observed, although some (e.g. top-down and bottom-up Europeanization) were more commonly encountered than others (e.g. horizontal Europeanization). Table 4.1 summarizes the Europeanization mechanisms that were observed in the RES-E and biofuels cases.

Table 4.1 Observed Europeanization mechanisms in the RES-E and Biofuels cases.

<Insert Table 4.1 here>

Top-down Europeanization was observed in both the RES-E and biofuels cases following the issue of directives. Typically, national implementation of the directives led to amendments in national regulatory frameworks and the development of support schemes. It can be argued that in terms of instrumentation, EU directives on biofuels introduced novel instruments to the Netherlands, whereas this was less so in the case of RES-E (where policy frameworks were already in place, and adapted to smooth the implementation of EU directives).

Horizontal Europeanization was identified in the development of the support mechanisms contributing to the targets set in the directives. In the case of RES-E, the overwhelming evidence of the success of FITs as implemented in other member states (and the uneven playing field this produced) eventually convinced the Dutch government to follow this strategy. Also citizens and firms, often referring to Germany, pointed out that such an incentive was indispensable to the adoption of RES-E. In the case of biofuels, the horizontal influence was less explicitly present, mainly because views and potential for (first-generation) biofuels production differed from other EU member states, in particular Germany and France.

Bottom-up Europeanization took place in two ways. First, the Netherlands (in the role of a proactive green member state) pushed for and succeeded in ‘uploading’ policies and standards to the EU. This was observed in both the RES-E and the biofuels case studies. Second, the Netherlands tried and succeeded in lowering targets that had been allocated to the country by the EU. In the case of biofuels this was related to the successful implementation (and even

‘uploading’) of a scheme that used a novel calculation method supporting second-generation biofuels (a goal that was already explicitly supported by the Netherlands in the EU discussion of biofuels). Bottom-up Europeanization also took place to modify EU directives (definitions and textual changes) so as to protect the interests of national industries.

In sum, the domestic biofuels market seems much more sensitive to vertical Europeanization than the domestic RES-E market. Given our mixed findings on the effects of the EU directives we assessed, and the influence of ‘horizontal’ cross-national EU influences, we tend to agree with Busch and Jörgens’ claim that ‘the mutual adjustment of autonomous states to each other’s policy decisions often has effects that are very similar to those of binding international agreements or supranational policy-making through EU-directives’ (Busch and Jörgens, 2012a, p. 221) on the Dutch RES-E case. However, there is little evidence to support this claim vis-à-vis the Dutch biofuels case.

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Table 4.1 Observed Europeanization mechanisms in the RES-E and Biofuels cases.

Europeanization mechanism	RES-E case	Biofuels case
Top down	Regulatory amendments made following implementation of the 2001 and 2009 Directives. However, national policies were to a great extent already aligned to the two directives (arguably to smooth implementation of the EU directives).	Regulatory changes made following implementation of the 2003 and 2009 Directives. Uncertainties regarding implementation path of 2009 directives.
Horizontal	Diffusion of FiT from other MSs and adoption in national policy (MEP, SDE schemes). Diffusion of regional and local government policies from other MSs to Dutch peers (e.g., best practices, competition schemes).	None.
Bottom up	Uploading of policy and attempts to adapt the Directive during the negotiations of the 2001 RES-E directive. Lowering of the national RES target during and after the 2009 RES directive negotiations with the EU (stressing subsidiarity).	‘Uploading’ of progressive incentives (i.e. the ‘double counting’ scheme) to spur adoption of second-generation biofuels. Pushing for strict regulation and certification of ILUC and FQD criteria.

5. Denmark: a wind powered forerunner

Helene Dyrhauge

5.1 Introduction

Danish renewable energy policy is a story of how civil society was able to push for wind power instead of nuclear energy and how one central politician was able to shape Danish environmental and energy policy, which has led to Denmark becoming a forerunner in terms of renewable energy sources (RES) promotion. The story begins in the 1970s, when the oil crisis fueled the pressure on the government to reduce its dependency on fossil fuels. Initially the government wanted to invest in nuclear power but pressure from grass root movements and universities together with wind power entrepreneurs changed the policy direction towards RES. The strong resistance against nuclear energy and the advocacy coalition (Sabatier, 1998) promoting wind power influenced the normative basis of Danish energy policy. The main policy shifts in Danish energy policy happened in the late 1970s and early 1980s, and today wind power has become an important energy source. Vestas, one of the world leading wind turbine producers, is Danish, and they have been influential in investing and developing wind turbines from the initial smaller ones to the big off shore wind parks. Overall, RES and technology sectors have become important for the Danish economy, which has influenced its policy orientation at the EU and international levels.

The 2009 renewable energy directive (RED) requires Denmark to increase the share of RES from 17 percent in 2005 to 30 percent in 2020; only five other member states have higher

targets (Latvia, Austria, Portugal, Finland and Sweden). The 2013 progress report shows that Denmark is on course to meet its targets (COM, 2013). Indeed, Denmark is seen as a forerunner, which has established some of the highest RES standards and targets in the EU. Crucially, the literature suggests that Denmark traditionally has adopted a defensive position on environmental policies where it has either tried to anticipate the European Commission's policy initiatives or actively defended its domestic policies and standards in European Council negotiations (Liefferink and Andersen, 1998; Andersen, 1998). In other words, Denmark's position as an environmental forerunner has put it ahead of European Union (EU) policy development, where Denmark generally has tried to push for stronger environmental policy instruments. This chapter explains how Denmark has become an environmental forerunner by tracking Danish energy policy development from the 1970s, when Denmark relied on imported fossil fuels, until today, when Denmark has become energy self-sufficient, due to North Sea oil and to progressive adoption of RES, most notably wind power. This chapter argues that there has been limited Europeanization. Instead domestic advocacy coalitions and individual politicians have been the main drivers in the development of Danish renewable energy policies.

The chapter starts by outlining the analytical framework, explaining how domestic advocacy coalitions are important for understanding bottom-up Europeanization. Section 5.2 outlines the analytical framework, detailing the role of domestic advocacy coalitions in fostering the Danish forerunner position in Europeanization of RES. Section 5.3 details the development of RES in Denmark from the 1970s onwards and explains how specific norm entrepreneurs have been able to influence the Danish political system, especially how RES have become institutionalized within the public administrative system. Section 5.4 turns towards the EU and analyses Denmark's RES policies in relation to development at EU level, especially focusing on

the 2009 RED and liberalization of the Danish electricity market, which were closely connected. Section 5.5 explains how the focus on RES for electricity (RES-E) has been at the expense of a national policy on biofuels. The final section draws conclusions on the extent to which Denmark's position as forerunner has led to domestic policy changes due to domestic factors or due to the EU.

5.2 Europeanization and forerunner position

Research on Europeanization attempts to explain a reorientation of national policies in relation to EU policy developments, this can range from domestic policy reform to subtle adjustments of existing public administrative procedures. However, not all changes in domestic policies are due to Europeanization. Forerunners, like Denmark, tend to introduce stronger environmental policy protection before the EU, either due to national domestic interests or pressure from domestic actors, in the form of specific advocacy coalitions. A forerunner or pace-setter will try to upload its policy preferences to the EU level (see Chapter 1 by Jørgens and Solorio), thus a forerunner is presumed to be a strategic actor who protects its own national interests. This leads to bottom-up Europeanization. However, it can be difficult to maintain a forerunner position over time and a member state can lose its forerunner position either due to changes at the domestic level or because other member states become forerunners (Wurzel et al., 2013). Nevertheless, a forerunner has established comprehensive public administrative structures which facilitate and promote high environmental standards.

An environmental forerunner establishes strong norms and cultures, which become institutionalized throughout the political system. These norms have often developed due to domestic factors, especially pressure from domestic actors and grass root movements. As such it

can be viewed as a bottom-up process. Specifically, '[a] forerunner' is defined as a Member State which is 'ahead' of EU environmental policy in the sense of having developed more advanced policies with higher level of protection' (Lieberink and Andersen, 1998, p. 256). A forerunner can adopt different strategies either trying to push-by-example or defending its domestic environmental standards at international level. A defensive forerunner is concerned that EU legislation will have a negative impact on domestic environmental standards, yet it is less concerned about finding EU level solutions. In general, forerunners 'wish to maintain the freedom to develop and implement their own national policies. European policies are welcome so long as they promote domestic policy goals' and do not 'constrain the autonomy of a Member State to set stricter standards' (Börzel, 2002, p. 203). Thus, a defensive forerunner is likely to veto a proposal or not implement legislation, if it does not fit with domestic standards. Denmark has traditionally been seen as a defensive forerunner, where it has both pushed the EU for stronger environmental protection and also defended its policies (Lieberink and Andersen, 1998a; Andersen, 1998). A forerunner is less affected by EU policy development compared to a laggard member state because a forerunner has institutionalized environmental norms and environmental protection at the domestic level, which makes it easier to implement EU legislation there.

A forerunner is often seen as a pioneer, which is a country with a first-mover advantage, yet a pioneer will not necessarily become a forerunner, just as a laggard can become a forerunner. A state's environmental position is therefore not static, but depends on both domestic and external factors. These factors are dependent upon a successful advocacy coalition which is able to facilitate policy change. For example, 'a necessary condition for becoming a pioneer [and forerunner] is a high capacity for environmental policy-making. This encompasses the

institutional, economic and informational opportunities and the relative strengths of the green advocacy coalition in the country' (Jänicke, 2005, p. 140). According to Jänicke (2005, p. 136) a successful advocacy coalition consists of traditional environmental supporters who work with industry modernizers to achieve stronger environmental policies. Indeed the advocacy coalition framework 'explicitly argues that most coalitions will include not only interest group leaders, but also agency officials, legislators from multiple levels of government, applied researchers, and perhaps even a few journalists'. Similarly, the advocacy coalition framework 'assumes that policy core beliefs are the fundamental 'glue' of coalitions because they represent basic normative and empirical commitments within the domain for specialization of policy élites' (Sabatier 1998, p. 103). These domestic green advocacy coalitions change over time, but for forerunners, the green norms and ideals will have been institutionalized in their public administration, which in turn influences how member states respond to EU policy developments and often results in limited domestic changes due to European policies.

5.3 The development of Danish renewable energy policy

5.3.1 Civil society's protest and influence on government's energy plans

Danish environmental protection and advocacy towards RES predates the 1970s oil crisis. In 1969 the first nature protection law (Naturfredningsloven) was adopted and a group of activists gate-crashed an academic conference on nuclear energy to announce they were establishing an alternative energy plan focusing on RES. The event led to the creation of the environmental grass root movement NOAH (today the Danish arm of Friends of the Earth) (Kampman, 1996). By the

time of the oil crisis (1973-74), Denmark had already created some environmental institutions, such as the environmental ministry, and civil society groups were beginning to oppose nuclear energy. NOAH was instrumental in promoting an alternative vision to nuclear energy, and they became one of the most influential grass root movements in recent Danish history, organizing demonstrations and lobbying successive governments, in addition to working with researchers at different universities. Several Danish protest songs have become national symbols of the right of the grass root movements against nuclear power. In particular, the opposition against the Swedish nuclear power plant, Barsebäk, across from Copenhagen, was important for the protest movements. Many people were concerned about the implications of having a nuclear power plant so close to the Danish capital.

The first national energy plan was published in 1976, which prescribed that nuclear energy should provide 23 percent of total energy consumption by 1995, and thereby replace the dependence on imported fossil fuels (Blegaa, 1977, p. 87). Although the 1976 national energy plan saw nuclear energy as important for the Danish energy mix, later in 1976 the government postponed the introduction of nuclear energy. However, the formal nuclear energy plans were only abandoned in 1985, by which time there was no support for nuclear energy and the protest movements had won the political discussion. From the 1970s onwards, civil society together with independent research from universities, mainly the Danish Technological University, and industrial entrepreneurs (wind power) had put pressure on successive governments to focus on RES instead of nuclear energy. This opposition against nuclear energy must be seen in relation to the national opposition towards Barsebäk nuclear power plant, which started operating in 1977. The groups which opposed nuclear energy focused on the implications of accidents, disposal of

nuclear waste and also the potential risk of terrorists and dictators gaining access to uranium (Meyer, 2000, p. 86).

As an alternative to the 1976 national energy plan, researchers from the Risø Institute¹ together with civil society, including NOAH, created an alternative energy plan (Hvelplund, 2005, p. 89). The 1976 alternative energy plan aimed to prioritize RES technologies, which at the time were not commercially viable. The plan also emphasized improvements of energy conversion systems (Blegaa et al., 1977). Wind and solar energy were part of the 1976 official energy plan, but the government was unsure of the viability of these technologies, especially if they would be commercially available by the late 1980s (Handelsministeriet, 1976). Thus, RES did not have a big role in the 1976 energy plan. However, wind power was important, and by the mid-1970s industrial entrepreneurs and researchers at the Risø Institute had built small wind-turbines. In 1979 the government introduced subsidies as incentives for individual persons or a small cooperative to buy wind turbines and install these in the local community and in 1981 the first wind map was published (Meyer, 2007). Initially the subsidies were 30 percent of investment, but over time the subsidies were gradually reduced and finally phased-out in 1989 (Auken, 2002, p. 153), subsidies were later reintroduced and have continued to be important for the growth in wind turbine parks. By 1989 the wind power industry had started to mature (Madsen, 2000, p. 163). Overall wind power has become part of Danish industrial policy and has become an export sector and by 2001 it had ‘supplied 50 per cent of the world’s wind turbine capacity’ and had become ‘the third largest export industry’ in Denmark (Midttun, 2001, p. 94).

Overall the public debate, during the 1970s and early 1980s, was influenced by researchers from the universities, especially the Risø Institute, and other independent organizations, such as NOAH (Hvelplund, 2005). The idea of RES promotion was eventually

adopted by successive governments. The Danish government environmental strategy paper from 1988 'Vor Fælles Fremtid' (Our Common Future) was a direct response to the Brundtland report and indeed used the same title, where sustainability had to be integrated into the Danish political and administrative system (Danish Government, 1988, p. 6). RES represented 4 percent of total energy consumption in 1987, and they were an integral part of the restructuring of energy production with the aim of reducing pollution (Danish Government, 1988, p. 106). Interestingly the strategy paper does not mention the EU. The implementation of the Single European Act, especially the chapter on environment, had been problematic for Denmark because Danish politicians were concerned EU legislation would have a negative effect on Denmark's high environmental standards. This debate clearly demonstrates the Danish defensive forerunner position and concerns about how EU legislation affects Denmark's own environmental standards.

Overall, the 1970s were characterized by strong civil society groups, which together represented an advocacy coalition, and their opposition against nuclear energy and promotion of RES, especially wind power, were eventually adopted by Danish governments. The 1980s national energy plans focused on RES and energy efficiency. Simultaneously the environmental debate started to become more professionalized, with academics and industry becoming more influential, whereas the grass root movements almost disappeared (Læssøe, 2007, p. 236). Moreover, the 1980s saw a green majority in the parliament, where the social liberals who were in a coalition government with the conservative and liberals often created a green majority with the social democrats and two socialist parties (Andersen, 1998, p. 265). The green majority in the parliament pushed the coalition government towards stronger environmental protection. The

social liberals eventually left the governments and in 1993 became part of a social democratic led coalition government.

5.3.2 The reign of Svend Auken (minister for environment and energy 1993-2001)

The 1993 general election led to a change in government from a conservative-liberal coalition to a social democratic-social liberal coalition government. The change in government had important implications for Denmark's position as an environmental forerunner. Firstly, Prime Minister Poul Nyrup Rasmussen (social democratic) appointed Svend Auken as minister for the ministry of environment and energy. Svend Auken was a strong advocate of more environmental protection. He believed that Denmark had to take a leading position on the environment, nationally, internationally and at EU level, whilst he also recognized that Denmark could learn from other countries (Auken, 1996, p. 11). Secondly, Poul Nyrup Rasmussen merged the environment ministry and the energy ministry. To ensure complete integration of the two ministries the administrative structures were changed to emphasize a more environmental ethos (Auken, 1996). This administrative integration of the two ministries created a synergy between the two policy fields, which often have contradictory policy goals. The Ministry of Environment and Energy represented innovative political leadership, where it developed a strong and often innovative central administration (Hvelplund, 2005, p. 88).

At EU level Denmark was one of the most articulated green member states, as a strong defensive forerunner Denmark focused on 'developing and maintaining strict national politics' and its approach 'was combined with an uncompromising approach in Brussels', where Denmark emphasized the pusher-by-example potential of its forerunner position (Lieverink and Andersen,

1998, p. 267). Simultaneously, Svend Auken took a more active role in EU environmental policymaking compared to earlier when Denmark was more concerned about protecting its own higher environmental standards instead of developing EU environmental policy. This is evident in the 1985 Danish veto on a proposal for a regulation on car emissions, whilst Denmark also had a poor implementation record (Andersen, 1998). Moreover, Svend Auken made sure that the European Environmental Agency was located in Copenhagen. Thus, the national norms and policy preferences regarding RES and the environment became stronger during the Auken period and became more institutionalized in the public administrative system and Danish approach to RES.

5.3.3 From defensive forerunner to climate change sceptic and back again

The new millennium brought new winds to Danish environment and energy policy. The general election in 2001 led to a change in government from the social democratic led coalition government to a liberal/conservative coalition government (2001-09) led by Anders Fogh Rasmussen. The new Prime Minister, Anders Fogh Rasmussen, separated the Ministry for Environment and Energy to create two independent ministries. Initially, Anders Fogh Rasmussen was very sceptical towards the climate change agenda and as part of his reform of the national advisory bodies, he set up the Environmental Assessment Institute, which was headed by the climate sceptic Bjørn Lomborg.

The creation of the Environmental Assessment Institute signaled a deliberate departure from previous Danish environmental policy priorities, creating more liberal norms and leading to weaker sustainability. For example, the new government halted support for wind power and

cancelled three planned off-shore wind farms (Ryland, 2010, p. 81). Anders Fogh Rasmussen later revised his position on climate change and in 2008 Denmark started to become more active and started to support wind energy again (Sovacool, 2013, p. 835). For example, in 2007 the Danish government started again to invest in new wind turbine parks. In the meantime, the de-prioritization of wind power influenced the Danish wind turbine sector, which had started to focus on exporting its knowledge and products (Energi Styrelsen, 2011). The new export orientated strategy generated growth both in terms of employment and in terms of the economic powers of the sector. The increased economic powers of the sector influenced the government's position at EU level, where the Danish government started to use more economic arguments to support RES, especially the potential for innovation and industrial development (Knudsen, 2012, p. 55). This also supported the more liberal economic policies pursued by the Anders Fogh Rasmussen government.

5.4 The Danish energy reform and implementation of the RES-E directives

5.4.1 The Danish energy reform

EU energy market opening started in the mid-1990s. Whilst the process aimed to create competition and a single market for electricity, it fed into the increased focus on RES and several EU directives were adopted in parallel. The liberalization required changes to the Danish electricity sector, including changes to administrative structures, where independent agencies had to be created in order to ensure fair competition.

The Danish electricity sector has traditionally been a decentralized one, in which local small independent power plants have been controlled by the municipalities. Today many co-fired

local power plants are fueled by biomass, mainly from waste and wood. Crucially the power plants continue to provide both electricity and heating to the local communities. The decentralized energy system also extended to infrastructure, where a connection between the east and west energy grid was only established in 2005 (Sovacool, 2013, p. 835). As Table 5.1 shows, there has been an increase in the use of biomass, which in 2012 accounted for 11.8 percent of domestic electricity production, whilst wind power accounted for 30 percent (Energistyrelsen, 2012, p. 12). According to Hvelplund (2005, p. 86) the growth in biomass and waste has reached a saturation point, which only leaves more growth for wind power and possible new technologies such as photovoltaic (PV) and wave power plants. Indeed, Table 5.1 shows that there has been a limited increase in biomass compared to wind power, which has increased substantially since 2005, when the government again started to support investment in new wind turbine parks.

Table 5.1 Electricity from RES in Denmark

<INSERT TABLE 5.1 HERE>

The 1996 electricity reform was mainly due to a decision by the national competition authority and happened before the EU electricity market opening started, this anticipation of EU policy developments brought Denmark into compliance with subsequent EU legislation and Denmark did not have to make further reforms (Jakobsen, 2010, p. 898). Nonetheless, Danish politicians, including Svend Auken, did not support the liberalization (Olsen, 2006, p. 10) and compared to the other Nordic countries, with whom Denmark worked closely on electricity issues, Denmark lagged behind (Midttun, 2001, p. 93). The Danish approach to electricity production favors a democratic planned economy, which engages the local community and the sector specific stakeholders (Midttun, 2001 and Knudsen, 2012). Indeed, the Danish political system is characterized by corporatism, where ‘interest groups play a key role in policy

formulation and implementation in general and in EU matters in particular' (Bursens, 2002, p. 183). Similar to most political reforms in Denmark the agreement on Danish electricity reform was made by the Poul Nyrup Rasmussen coalition government and the opposition (liberals and conservative). Agreements between the government and the opposition ensure that the next government does not reverse the reform, thereby creating a more legitimate reform process.

Whilst the 1996 reform was caused by domestic factors it also feeds into the general assumption of Denmark as a good compliance member state. Similarly, the early implementation follows Denmark's pattern of implementation and anticipated EU environmental requirements ahead of EU policy developments. This can also be seen in the 1999 Danish Energy Reform Act included a Danish carbon dioxide (CO₂) trading scheme, which should be seen as part of Denmark's international commitment to the Kyoto targets of reducing CO₂ emissions (Regeringen, 1999). Support schemes have been an important element of the Danish commitment to RES, starting in the late 1970s where individuals were given financial support to erect wind turbines in their local area. Nevertheless, various governments have periodically stopped financial support for new wind turbine parks, which has led to stagnation in the level of energy from wind turbines. Thus governmental support for investment in new wind turbine farms is important.

The alignment between energy liberalization and environmental concerns, in other words RES-E, supports the Danish integrated approach to energy and environmental policy (Midttun, 2001, p. 99). In 1999, the Danish government (led by Poul Nyrup Rasmussen 1993-2001) assumed that 'the EU Commission preferred more market-oriented support systems, and would seek further harmonization of national support systems to this end. This has turned out to be a premature decision, given that the EU Commission has postponed the harmonization of support

schemes' (Meyer, 2007, p. 353, see also Chapter 2 by Solorio and Bocquillon). Instead the agreement between the new government (led by Anders Fogh Rasmussen) and the opposition postponed the introduction of a RES-E certificate until it was possible to establish a common market at EU level (Regeringen, 2002).

5.4.2 The Danish positions on RES-E directives

The first RES-E directive from 2001 was adopted whilst Svend Auken was minister and Denmark committed itself to an indicative RES-E target of 29 percent by 2010. During the European Council negotiations only Denmark, and later Germany, supported binding targets (Lauber, 2002, p. 30). The other member states preferred indicative targets whilst both the European Parliament and the European Commission wanted binding targets for RES (Rowlands, 2005, p. 970). Moreover, the member states were divided on a number of issues including the definition of RES (Rowlands, 2005, pp. 967-968) and this intra-organizational division influenced the final 2001 RES-E directive. In general, a split European Council often leads to a weak policy outcome as the Parliament will not be able to push for a stronger directive.

In 2008 the European Commission published its climate and energy package, which included a proposal for a revision of the 2001 RES-E directive. Again, Denmark wanted stronger and more ambitious targets compared to those published by the European Commission, and the Danish government did not support using the financial crisis as an excuse to water down the proposals, including the 2009 RED, as some other member states wanted (Udenrigsministeriet, 2008a and 2008b). Moreover, the Danish government wanted a quick decision making process and a policy outcome, which would strengthen the EU's environmental leadership and show the

world that the EU is an environmental forerunner (Europaudvalget, 2008, p. 49). The EU adopted mandatory national targets for the revised 2009 RED, thereby making it a stronger policy instrument. The 2009 RED commits Denmark to a share of 30 percent of RES in gross final energy consumption by 2020 (2009 RED). Svend Auken would have liked to see a 50 percent target and for Denmark to become the first CO₂ neutral country (Ryland, 2010, p. 83). Sweden is the only member state which has such a high target for 2020.

Crucially the stronger 2009 RED strengthened the EU's position as an environmental leader. However, its position was challenged during the 15th session of the Conference of the Parties to the United Nations Framework Convention on Climate Change (known as COP15), which was hosted by Denmark in December 2009. Here Denmark wanted to showcase its environmental leadership and set ambitious targets for the negotiations, yet a mixture of domestic and external factors made it impossible for the participating countries to reach an agreement and thereby replace the Kyoto agreement (Parker et al., 2012). Overall, the COP15 was seen as a failure.

In 2014, the Danish government supported the European Commission's 2030 climate change targets, and wanted a slightly more ambitious binding target of 40 percent CO₂ reduction, at least 30 percent energy efficiency and at least 30 percent RES (Øyen, 2014). Yet Prime Minister Helle Thorning-Schmidt (Social Democrats) recognized the difficult situation and diverging national preferences, which made it difficult to reach an agreement in the Council (Øyen, 2014). Indeed, it had been difficult to reach an agreement on the EU's 2030 climate and energy change package in the European Commission, where the –back then- Commissioner for Climate Change Connie Hedegaard and the Commissioner for Energy Günther Öettinger had disagreed up until the publication of the proposal in January 2014. After the Council meeting in

October 2014, Prime Minister Helle Thorning-Schmidt said she was satisfied with the result, especially given the major differences between the 28 member states and that the agreement would prepare the EU for the COP21 negotiations in Paris in December 2015 (Albrechtsen, 2014). Overall, the Danish position in the European Council represents environmental pragmatism, where it is more important to reach a less ambitious agreement than to push for ambitious targets which do not result in an agreement. This pragmatism is also evident in the Danish presidency of the EU (January- July 2012), where a key priority for the presidency was to successfully finish the negotiations of the EU Energy Efficiency Plan as part of the European Commission's roadmap to a low carbon economy, which included a proposal for a directive on Energy Efficiency. Prior to the Danish Presidency, the Danish government had stopped pushing its own policy preferences and instead started to focus on finding compromises which would enable a Council agreement. Whilst the final energy efficiency directive was less ambitious compared to the European Commission's initial proposal, the final result was still ambitious given the diverging national preferences in the Council (Petersen and Enghave, 2015). This result-oriented negotiation strategy by the Danish Presidency, where it is more important to reach agreements even though they might be less ambitious compared to Danish preferences, is not new. Danish presidencies tend to be ambitious and result-orientated. This can be seen in the 2002 presidency when Denmark successfully concluded the 2004 enlargement agreement and 2002 climate and energy package.

5.4.3 Danish Implementation of RES Directives

The Danish target for the share of RES in total energy production was set prior to both the 2001 RES-E and the 2009 RED, as part of political agreements between the government and

opposition on the 2000 and 2008 national energy plans. These targets were uploaded to the EU level as the European Commission accepted the targets set by the Danish government, which has resulted in a continual increase in RES. Also, more importantly the RES-E directives did not require Denmark to implement policy change as the administrative system was able to absorb the new EU legislation. More specifically, the 2009 RED did not require legal changes (Danish Foreign Ministry, 2007) and the implementation of the 2009 RED was an administrative process.

In general, Danish implementation of EU legislation is predominately administrative changes to existing national law, and the main issue is to identify where to insert these amendments (Basse, 2011, p. 26). The use of executive orders ‘implies that the minister and his/her administration are responsible for the implementation but the Danish parliament is not involved as legislative power’ (Martinsen, 2014, p. 195). Moreover, the implementation of EU directives is often technical. Consequently, Danish politicians are rarely involved in implementation. Instead this is determined by civil servants in the relevant ministries, who have developed a culture of coordination to ensure the appropriate stakeholders, both internal and external, are involved in the implementation process. However, EU liberalization, for example of the energy sector, requires administrative and structural changes as new independent agencies have to be established. This requires political involvement from the Danish parliament.

The Danish public administration of RES has become institutionalized and the institutional capacity of the public administration is formed by the Danish forerunner position, where Denmark has had higher standards and goals compared to the EU. Indeed, the policy initiatives in the RES plan shall ensure that Denmark reaches a leading position before 2020 (Basse, 2011, p. 33). Due to Denmark’s commitment to being a forerunner, EU legislation and policy priorities have had a limited impact on Danish renewable energy policy.

5.5 Foot-dragger: Danish biofuel policy

Compared to RES-E there is no advocacy coalition to support biofuel for transport; instead the domestic actors (industries, non governmental organizations [NGOs] and researchers) are divided on the issues. Similarly, there is no political consensus and Danish politicians are also divided (Børsen, 2009; Altinget, 2009). The Danish political debate reflects the EU and global debate about the impact of biofuels on food prices and land usage (Afionis and Stringer, 2012; Mol, 2010), especially as most biofuels are imported from other parts of the world, most notably Brazil. Instead the Danish government believes that the use of biomass for the production of heat and electricity reduce CO₂ emissions much more than biofuels for transport would (Energistyrelsen, 2006). Critical environmental voices believe biofuels for transport, most notably first generation biofuels, are not economically or environmentally feasible and instead they wanted to increase environmental standards for new cars.

Moreover, the Danish biofuels targets in the biofuels directive are low, especially compared to its high targets in RES-E. In 2005, the European Commission sent a letter of notification to Denmark regarding the implementation of the biofuels directive, in which the Commission stated that the Danish zero targets for use of biofuels for transport was unacceptable, and requested Denmark set a national target. Consequently, the Danish government decided to use 60 million kroner (7.9 million Euros) to invest in biofuels, mainly for public transport and vehicles used by the public sector (Transportministeriet, 2005). This late and weak response to the Commission's letter regarding implementation should not be seen as Danish resistance towards stronger environmental protection, instead this policy position ties into the existing policy path, which emphasizes RES in heat and electricity productions. Thus the

Danish foot-dragging (see Chapter 1 by Jørgens and Solorio for conceptual discussion) reflects the complexity of the biofuels discourse especially in relation to food prices and actual reductions in CO₂ emissions. Denmark prefers to strengthen its existing policy path by investing in electrical cars, although the infrastructure for recharging is still lacking. In the 2013 energy agreement between the government and opposition, they decided to promote the development of gas, hydrogen and electrical cars, including establishing infrastructure for these types of vehicles (Klima og Energiministeriet, 2013, p. 13). The development of a policy for alternative fuels for transport is only just emerging in Denmark. Crucially the lack of an advocacy coalition and the contested discussion about the benefit of biofuels for transport is affecting the policy field.

5.6 Conclusion: Denmark a continued forerunner

The three core elements in the Danish environmental energy plan since the 1970s have been to increase energy efficiency, increase RES share of total energy production and reduce reliance on imported fossil fuels. Moreover, Denmark has adopted taxes on energy fuels, electricity and carbon, which aim to promote continued energy efficiency, whilst simultaneously providing financial support to projects which promote RES-E production, especially wind power.

Consequently, Denmark has become a forerunner in RES-E and environmental policies, which precisely aim to increase the share of RES, increase energy efficiency and reduce emissions and reliance on imported fossil fuels. The position of forerunner originates from a domestic advocacy coalition, which has grown from environmental groups into big export oriented companies.

Simultaneously there has been political support for RES-E and these norms have become institutionalized in the public administration. These strong domestic actors have been the main drivers pushing Denmark towards stronger renewable energy policy. As such there has been

limited Europeanization as Denmark has been ahead of EU legislation and has had more ambitious policy goals.

The emphasis on wind power and co-fired power plants has been at the expense of biofuels. Compared to RES-E there is no national advocacy coalition to promote biofuels and the lack of consensus on the benefits of first generation biofuels has influenced Danish policy developments, especially as the politicians themselves have been divided. Also the general biofuel debate is fragmented at all levels from domestic and EU through to the global level. This lack of an advocacy coalition in biofuel and a fragmented policy field has clearly influenced Danish biofuel policy. It is therefore not surprising that Denmark, as an environmental forerunner, is continuing to prioritize wind power, in which it has established a presence and in which there is less debate about the environmental benefits. Despite the more sceptical perspective on the environment in the first Anders Fogh Rasmussen government, there was a continued political commitment to protect Denmark's forerunner position, where it traditionally has acted as a defensive forerunner at EU level often pushing for stronger environmental policy instruments. The Helle Thorning-Schmidt government appears to have become more pragmatic in its position in the European Council, preferring to find solutions instead of vetoing policy initiatives. However, more research is needed to determine the Danish negotiation position over time in relation to RES, especially which factors foster a defensive forerunner position.

Finally, the continued commitment to RES promotion is evident in the latest domestic targets where Denmark has to reduce GHG emissions by 40 percent by 2020. By 2035 Danish electricity and heating have to be based on RES; and by 2050 all energy, including the transport sectors, must be based on RES (Regeringen, 2013, p. 7). This continued forerunner position is not only due to ideological beliefs but also due to the increased economic position of the

renewable energy sector, in particular the wind turbine industry, which has become a world leader and an important export.

Notes

¹ The Risø Research Institute is part of the Danish Technological University and also the only place in Denmark with a nuclear reactor, which was used for research purpose. Some researchers at the institute supported the introduction of nuclear energy. The nuclear reactor has now been decommissioned.

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TABLE 5.1 Electricity from RES in Denmark, (Source: Energistyrelsen, 2012, p.12).

Percent	1994	2000	2003	2005	2009	2010	2011	2012
RES-E share in total	5.3	15.9	22.9	27.4	28.9	34.8	40.7	43.1
Solar energy	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Wind power	3.4	12.1	15.8	18.5	19.3	21.9	28.0	29.8
Hydropower	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
Biomass	1.5	3.1	6.3	8.1	8.5	11.9	11.6	11.8
- Straw/hay	0.2	0.5	2.1	2.4	1.9	3.1	2.2	1.8
- Wood	0.4	0.7	1.8	2.9	3.8	6.2	6.6	7.5
- Biodegradable waste	0.9	1.9	2.3	2.8	2.8	2.6	2.7	2.6
Biogas	0.3	0.6	0.8	0.8	1.0	1.0	1.0	1.1

6. The UK and EU renewable energy policy: the relentless British policy-shaper

Israel Solorio and Jenny Fairbrass

6.1 Introduction

Ever since the United Kingdom (UK) joined the European Communities in 1973, the British reputation has been that of an 'awkward partner' (George, 1990). This reputation has remained through time and gained renewed relevance after the Brexit decision – where, in a referendum held in June 2016, 52 percent of British voters manifested a desire to leave the European Union (EU). Perhaps one of the best examples of the troubled relationship between the UK and its European partners is the development of the EU's energy and climate policies. Francis McGowan (2011) defined the British role in EU energy policy as a shift from being an awkward partner to an active protagonist, while Tim Rayner and Andrew Jordan (2011) described the UK's engagement with EU climate change policy as 'rather paradoxical' – a leader in global and European negotiations but a laggard in the implementation of these agreements domestically.

When joining the EU in the 1970s the UK struggled with the European method of governance (Jordan, 2000). The response to this challenge on the part of British policy-makers was to actually transform European structures and ways of doing things. Initially, the UK was reluctant about the EU's energy and climate policies. British negotiators blocked any attempt at an EU energy policy during the 1970s in order to jealously protect the North Sea oil and gas reserves, and they did the same with the first attempts to develop a common European

response to climate change by hindering the adoption of a carbon tax in the 1990s (McGowan, 2011, p. 203). However, soon after the UK became a policy-shaper in a more proactive way. So much so that some authors argue that the EU's energy and climate policies have evolved at a 'British tempo' (Ciambra and Solorio, 2015), being critically shaped by the UK (Cass, 2007).

This chapter tests the well-established idea of Britain as an awkward partner using the case of RES promotion in the EU; a policy that not long ago was considered a cornerstone of EU climate and energy policies (Tosun and Solorio, 2011). To do so, it employs the Europeanization analytical framework outlined in the introduction to this book. This chapter pays special attention to the bottom-up dimension of Europeanization, arguing that the UK has been able to effectively 'upload' its national interest to the EU level. This is thanks to a strategy that has consisted of sometimes adopting the role of a pace-setter, sometimes performing a foot-dragger role, and sometimes acting as a fence-sitter when necessary (see Chapter 1 by Jørgens and Solorio). The overall result has been a role for Britain as a relentless policy-shaper of EU renewable energy policy.

The chapter is structured as follows. Section 6.2 details the analytical framework to be employed. Section 6.3 analyses how the UK has shaped the EU's policy oriented to the promotion of RES for electricity (RES-E), while Section 6.4 tackles the case of RES for transport (RES-T). Ultimately, Section 6.5 assesses the UK's role in shaping EU renewable energy policy, the strategies displayed across the different negotiation processes and how those negotiating positions have been affected by top-down and horizontal Europeanization processes.

6.2 Analytical underpinning: the British capacity for shaping and taking EU policies

For years, Europeanization studies were mostly concerned with the impact of the EU on its member states (i.e. top-down Europeanization). For example, Andrew Jordan (2000) gave an account of the way in which British environmental policy was transformed by the EU. This merely top-down approach dominated Europeanization studies until authors like Tanja Börzel (2002) started signaling the need to link the top-down and bottom-up dimensions of Europeanization. Specifically, she centred attention 'on the ways in which Member States governments both shape European policy outcomes and adapt to them' (Börzel, 2002, p. 194). Thus, Europeanization began to be understood as a cycle where downloading and uploading processes were different sides of the same coin. With increasing sophistication in Europeanization studies, however, Börzel's two-way process approach has given way to the notion of 'circular Europeanization', 'which also includes European integration and its influence at the national level, which in turn influences European integration anew' (Saurugger, 2014, p. 184). Importantly, this novel approach not only incorporates the variable of time but additionally establishes a framework where horizontal Europeanization processes can also take place (see Chapter 1 by Jörgens and Solorio).

The circular approach has allowed us to overcome some of the limits of linear Europeanization models (Saurugger, 2014). However, the fact is that our understanding of Europeanization processes still relies upon previously developed analytical tools and concepts. This is the case for member states' methods of influencing EU policies, still based on Börzel's typology of pace-setting, foot-dragging and fence-sitting strategies (see Chapter 1 by Jörgens and Solorio). In this regard, while pace-setting 'involves the active shaping of European policies according to domestic preferences', foot-dragging 'aims at stopping or at least containing the

attempts of other Member States to upload their domestic policies to the European level' (Börzel, 2002, p. 197-203). The former strategy is typically adopted by 'green' member states – acting as environmental leaders, pioneers or forerunners (Liefferink and Andersen, 1998) - while the latter pertains more to late-comers, as the UK can be considered in terms of RES development (Dinica, 2002).

Fence-sitting suggests a rather ambivalent strategy, where member states 'build changing coalitions with pace-setters and foot-draggers' (Börzel, 2002, p. 206), depending on the issue under discussion and the most convenient position for the national interest. Normally, the fence-setter does not have a strong vested interest in the policy in question. Andersen and Liefferink (1997) argue that the UK usually adopts this strategy in environmental issues. Therefore, the proposed explanation is relevant to this case in the sense that fence-sitters adopt this strategy, given that they 'may miscalculate the costs involved in downloading a European policy or do not give much importance to the issue' (Börzel, 2002: 207). Also, they 'may prefer to avoid costly European policies simply by not implementing them' (Börzel, 2002, p.208). Accordingly, it is expected that fence-sitters – like foot-draggers – will have a rather disappointing implementation record.

Equipped with the above-presented analytical tool-kit, this chapter develops a causal process-tracing aimed at disentangling the UK's capacity to 'upload' its national preferences in the making of EU renewable energy policy. Given the adopted circular approach, a particular challenge to this chapter is to understand how British strategy has been affected across time by both top-down and horizontal Europeanization processes. This research is primarily based on a documental analysis using both primary and secondary sources, including parliamentary

debates, official documents from the UK government, scientific reports and documents from EU institutions, as well as journal articles and newspaper notes on the subject.

6.3 Britain and RES-E development in Europe: the influential role of a late-comer

6.3.1 Background: the UK as a late-comer in RES-E promotion

The existence of a national programme to support RES research and development (R&D) in the UK dates back to 1975 (Brown, 1993). During the time of the oil shocks that marked Europe's national energy policies, Britain was at the forefront of research in RES technologies and was starting to develop domestic manufacturing capabilities (Jackson, 2000). Nevertheless, the upheaval in the energy markets— a product of the oil crises – rapidly changed the priorities of the UK government towards developing North Sea oil and gas (Surrey, 1990). National policy-makers then considered RES development irrelevant (Reiche and Bechberger, 2004: 844) and the British position on RES technologies was severely affected by budget cuts in the government's R&D spending (Jackson, 2000). Of course, this shift in the support for RES was only one part of major changes in national energy policy in line with overall economic policy, at the time led by the Conservatives and characterized by a privatization-liberalization drive (Matlary, 1997, p.29). The UK became a 'first-mover' in the implementation of a model that transformed energy policies across Europe (Padgett, 2003, 231) and which was the gateway for a major role for EU institutions in energy policy (Eising, 2002). However, as far as RES is concerned, privatization failed to attract private capital for its development (Connor, 2003).

From 1990, the UK had a specific programme for the promotion of RES-E: the so-called Non-Fossil Fuel Obligation (NFFO). By means of this instrument, generators of non-fossil based plants received a premium price from electricity companies (Mitchell, 1995). However, the 'NFFO was primarily set up as a means to subsidise nuclear generation, which had proved too difficult to privatise' (Mitchell and Connor, 2004, p.1936). Dieter Helm argues that the inclusion of RES-E within the NFFO was based on the consideration that the 'non-fossil' label would be better received than the less acceptable 'nuclear' one (Helm, 2003, 350). Once the door was opened, however, it was impossible to impede support for RES-E (Mitchell and Connor, 2004, p.1936) and it began to be a recipient of the NFFO (for a review of the evolution of the NFFO see Mitchell, 1995). Still, in 1999 the percentage of consumed electricity from RES barely reached 2.8 percent (UK Parliament, 2001). In the end, even though the NFFO was a lesson-learning experience for the British government, its failure meant that the UK became a European late-comer in RES-E promotion.

6.3.2 The RES-E directive: the unexpected British pace-setter

In 1997 the Labour returned to government, undertaking numerous policy reviews, 'so that changes to energy (and renewable energy) were slow' (Mitchell and Connor, 2004, p.1938). It was in this context of limited RES-E development and a policy in transition that the UK faced the discussions on the RES-E directive (see Chapter 2 by Solorio and Bocquillon). Just as Britain's liberal ideas gained traction within the EU institutions, the British position also improved in the course of this negotiation process. After the liberalization of the European electricity markets started in 1996, early proposals emanating from the European Commission considered market

instruments to be the best way to reorganize the RES-E sector in the EU (Lauber, 2005). In a report that preceded the 1998 draft directive, the Commission considered that, at some stage, transition towards a RES-E support model based on trade and competition would be inevitable (Busch and Jörgens, 2012, p.79).

Against this background, the road to the 2001 RES-E directive can be best characterized as the rise and (temporary) fall of the Commission's ambitions to harmonize the European support schemes based on Tradeable Green Certificates (TGCs). This model was perceived as more compatible with the internal market rules against the less market-friendly Feed-In Tariffs (FITs) model (Rowlands, 2005, p.971; Lauber and Schenner, 2011, p.517). Bearing in mind that the Commission's liberal approach was UK-inspired (Ciambra and Solorio, 2015), and given that at the time of the negotiations British policy-makers were already pursuing a TGCs system at the domestic level (Rowlands, 2005, p.972), the UK's role –at least concerning this part of the debate – can be considered as that of an unexpected pace-setter. The fact that harmonization did not prevail in the final directive can only be explained by the resistance of member states like Germany and Spain (see Chapter 3 by Vogelpohl et al. on Germany and Chapter 8 by Solorio and Fernandez on Spain). The British late-comer acted as a pace-setter, while the German pioneer performed a foot-dragger role; their roles were inverted during the RES-E directive negotiations. However, this process set the basis for the diffusion of the TGC model across Europe, i.e. horizontal Europeanization (Busch and Jörgens, 2005, p.878). In the UK, Renewables Obligation (RO), a system based on green certificates, started operating in April 2002 (Mitchell and Connor, 2004).

Another aspect of the directive in which the UK role was decisive concerns the definition of RES. A key concern for British policy-makers was the fact that the Commission's original proposal excluded electricity generated from the incineration of municipal waste and landfill gas (UK Parliament, 2000), sources that were considerably developed under the NFFO (Mitchell and Connor, 2004). During the Council negotiations, the positions of Italy, the Netherlands and the UK were key to broadening the definition of RES (Rowlands, 2005, p.968). In the end, the UK national objective included within the RES-E directive was the same as that which the British government had been using as baseline since Labour regained power: 10 percent of electricity to be produced from RES by 2010 (House of Lords, 2004, p.14).

Bearing in mind that this directive lacked an EU model for support systems, considering the broadened RES definition which was included, and given that 'the Commission was put under pressure by virtually all ministers in the Council to make the targets indicative' (Rowlands, 2005, p.970), the overall result was a directive that placed limited adaptation pressure on the UK. Still, the objective of 10 percent RES-E in national electricity consumption by 2010 represented a huge challenge for Britain (House of Lords, 2004) which was finally not met – the UK failed to achieve the 2010 RES-E goals (COM, 2013, p.4).

6.3.3 The UK and the RED: mid-way between pace-setter and fence-sitter

The negotiation process for the renewable energy directive (RED), which was adopted in 2009 (see Chapter 2 by Solorio and Bocquillon), was considerably guided by the UK from very early on in its conception. To start with, the integration between the EU's energy and climate policies was only possible thanks to the role played by former Prime Minister Tony Blair (in office: 1997-

2007). He used the British presidency of the European Council in 2005 in order to put forward a proposal for expanding the EU's competences on energy (Solorio et al., 2013, pp. 96-98). The policy initiatives that emerged from this process eventually led to the 2009 EU climate and energy package, to which the RED pertains (Morata and Solorio, 2012). Importantly, this U-turn by the UK was motivated by the depletion of North Sea reserves, which 'required a radical rethink' of British energy policy (Helm, 2007). Britain was largely responsible for the reactivation of broader EU climate and energy policies but it was a long way –and one which was not always UK-led– from endorsing the 20-20-20 targets set by the European Council in March 2007 to adopting the RED in its final form. In fact, the UK's support for EU-wide climate and energy targets was a surprise, and is said to have gone against the Tony Blair administration's recommendations (Bocquillon, 2015, p.138).

In 2006, the Commission began pushing the debate forward with the goal of shaping the idea of an EU strategy for sustainable, competitive and secure energy, including new legislation on RES (COM, 2006, for an explanation of this process see Tosun and Solorio, 2011). In spite of the fact that its own evaluation report on support schemes published in December 2005 'contradicted several theoretical arguments' in favour of TGCs – considering them less cost-efficient and less effective at deploying RES-E than the FITs model (Lauber and Schenner, 2011, p.519) – the Commission's 2008 directive proposal kept the idea of a harmonized European support system based on TGCs (see Chapter 3 on Germany by Vogelwohl et al.).

The UK government actively lobbied the Commission to back trade in RES during 2007. Therefore, some analysts have called the Commission's hard line on this pro-market stance the 'British disease' (Toke, 2008, p.3003). Allegedly, the intense push from Britain was based on the

consideration that, otherwise, electricity prices would dramatically increase if the UK was forced to meet the national binding targets for RES by 2020 (Fouquet, 2007). Protests from important RES-E producers like Germany and Spain (see Chapter 3 on Germany by Vogelpohl et al. and Chapter 8 by Solorio and Fernandez on Spain), together with concerns about industrial competitiveness (in a context of economic crisis), gave way to a more pragmatic stance on the part of the Commission, to rising opposition against a harmonized European support system based on TGCs, and, eventually, to trading in RES enthusiasts – including the UK – to dismiss the harmonization idea in favour of a consensus among member states (Nilsson, 2011, p.123). In 2008, Britain, together with Germany and Poland (see Chapter 3 on Germany by Vogelpohl et al. and Chapter 10 by Jankowska and Ancygier on Poland), presented a joint proposal to the Council that discarded TGCs 'while introducing instruments for "non-trading flexibility"' (Lauber and Schenner, 2011, p.520). The coalition proposed three optional flexibility mechanisms which were to be finally included within the RED: statistical transfers of RES' guarantees of origin between member states, joint projects for the development of RES, and the possibility of setting up joint support schemes between member states (Bocquillon, 2015, p.144). On support schemes, Britain began the negotiations as a pace-setter but finished as a fence-sitter by building a tactical coalition that overcame the impasse at the Council.

Bearing in mind that the UK has no strong vested interest in the RES-E sector, its broadly proactive role in the negotiations leading to the RED appears rather paradoxical (McGowan, 2011, p.205). However, everything makes more sense if we consider that the 'British position has essentially been to advocate the replication of the British market approach in Europe' (Helm, 2007, p.8). Moreover, British officials were trapped by their own climate change

leadership discourse and, when leaked documents showed that the UK negotiators were opposed to binding national targets, social pressure forced the British government to reaffirm 'the government's commitment with the overall policy' (McGowan, 2011, p.205, for the original leak see The Guardian, 2007).

Under the RED, Britain has to meet 15 percent of its national overall energy consumption with RES by 2020. Several reforms to Britain's renewable energy policy can only be understood in the framework of EU policies [e.g. the RO revision¹ (see Wood and Dow, 2011)] and the introduction of FITs² to encourage the development of a range of small-scale RES technologies (see Toke, 2007)]. Still, in 2015 the Commission considered that the UK needed to assess whether its existing policies were sufficient to meet the RES targets (COM, 2015, p.4). While it is hard to argue against the fact that 'EU directives have also provided significant shape to UK energy policy' (Pollitt, 2010, p.2), it is clear that the UK has moulded EU renewable energy policy in a way that has considerably reduced adaptation pressure at the domestic level and granted leeway for maintaining national energy policy priorities.

The role of Britain as an awkward partner in RES-E promotion, characterized as performing as a relentless policy-shaper but a laggard concerning implementation, was deepened during the negotiations for the 2030 targets during 2013-2014. Given the revival of nuclear energy in the UK, and considering the discovered shale gas potential, British officials pushed for a single target for greenhouse gases (GHG) emissions reduction with the intention of giving flexibility to member states in terms of compliance (Bürgin, 2015, p.699). In the end, Britain's position was crucial in making the 27 percent target for RES not binding at the national level (EurActiv, 2014). Shaping the 2030 goals in such a way that they prioritise GHG

reductions and side-line the relevance of RES targets is one of the most recent legacies from the awkward partner in EU renewable energy policy before the Brexit decision.

6.4 The UK and biofuels policy: the leading laggard

6.4.1 The instrumental laggard and the biofuels directive

Before the EU started promoting biofuels, their production and consumption were insignificant in the UK. As in the case of RES-E, the existence of oil resources limited the national policy framework for promoting market demand and the development of a biofuels industry (Eikeland, 2006, p.26). Britain's biofuels policy has been a direct response to EU pressures. National biofuels production only started in 2002 in the case of biodiesel and in 2005 for bioethanol (Bomb et al., 2007, p.2261). Against this background, and given that initially the Commission intended to set mandatory biofuels targets with 'an obligation on Member States to ensure that as from 2005 a minimum share of transport fuel sold on their territory consists of biofuels' (Jansen, 2003, p.29), it is easy to understand why the UK was one of the toughest opponents of the biofuels directive initial proposal. Predictably, Britain adopted the role of a foot-dragger during the entire negotiation process between 2002 and 2003 (Solorio and Popartan, 2014, p.134).

Two issues were specially contested by British negotiators. On the one hand, the UK government was reluctant about mandatory biofuels objectives (UK Parliament, 2002a). A generalized rejection from part of the Council of the binding nature of targets forced the Commission to give way to a less restrictive directive (see Chapter 2 by Solorio and Bocquillon). On the other hand, the Commission's recommendation about the introduction of a selective tax based on the environmental performance of biofuels was dismissed by British officials under the

argument that the ‘UK strongly withholds the right to take decisions on taxation policy and is opposed to any action not consistent with this principle’ (UK Parliament, 2002a). Britain’s negotiation position was in favour of allowing member states to give tax incentives for biofuels but against the details of the initial proposal (UK Parliament, 2002b). Arguably, the UK’s role was instrumental in shaping the common position text with the adoption of indicative targets and the reformulation of the biofuels taxation policy (Solorio and Popartan, 2014, p.134).

The adoption of this directive originated an intense domestic debate on the convenience of promoting biofuels. Yet, the fact is that in terms of public policy the only tangible step initially taken by the British government was the establishment of fuel duty incentives, adopted from July 2002 (Berti and Levidow, 2014, p.138). The rest of the measures can even be seen as anecdotic, such as sponsoring research and development or information provision. This is so much so that in 2003 Parliament's Environment, Food and Rural Affairs Committee accused the British government of adopting an ‘ambivalent attitude’ towards biofuels policy (House of Commons, 2003). It was only in 2007, after an intense domestic debate (see Solorio and Popartan, 2014), that the UK government adopted the Renewable Transport Fuel Obligations (RTFO) in order to further implement the biofuels directive. Its adoption arrived rather late and, ultimately, the UK failed to meet the 2010 biofuels target – 5.75 percent of commercialized fuels (COM, 2013, p.4). Interestingly, in advance of the EU RED, in 2008 the UK adopted a carbon and sustainability reporting scheme in order to monitor GHG savings and the sustainability of biofuels (Chalmers and Archer, 2011). In this way the UK, a country once known as the ‘dirty man of Europe’, paradoxically became a European pioneer in the certification of biofuels sustainability.

6.4.2 The UK and the future of the EU biofuels policy: ecologist for convenience?

The British negotiation position before the RED was directly determined by the implementation of the biofuels directive. With only an embryonic industry and not enough time to reform agricultural policy in order to allow the planting of crops for biofuels production, raw material imports became the most viable solution for reaching the biofuels objective. Against this backdrop, and considering that the domestic debate was highly determined by climate change concerns, environmental internal opposition to biofuels sprang up (Solorio and Popartan, 2014, p.134).

In 2007, as part of the national debate on the RTFO and the convenience of supporting biofuels, the most influential environmental NGOs – including Greenpeace, Friends of the Earth, Oxfam and WWF – united in a powerful media campaign in order to ‘put pressure on the UK government to implement rigorous sustainability criteria (including minimum greenhouse gas savings) as part of the RTFO’ (Pilgrim and Harvey, 2010). Concerns about biofuels sustainability were fuelled by the March 2007 agreement of the European Council on a 10 percent biofuel target by 2020 (Berti and Levidow, 2014, p.139). Bearing in mind the doubts about biofuel sustainability, even institutional bodies such as Parliament’s Environmental Audit Committee called for a moratorium on biofuels in 2008 (Solorio and Popartan, 2014). Given these intra-institutional divisions, and considering the wider public controversy, the UK government commissioned an expert revision of biofuel policy (Berti and Levidow, 2014, p.140). The result of the government review, the so called ‘Gallagher Review’, concluded: ‘Biofuels can only contribute GHG savings from transport if significant emissions from land-use change are avoided and appropriate production technologies are employed’ (RFA, 2008). Taking into

consideration the Gallagher Review's results, the UK government decided to slow down the rate of increase in the obligation level to 3.5 per cent for 2010, began looking for alternatives to meet the 2020 target, widening the products eligible under the RTFO to include biobutanol, and made the environmental effects of biofuel production a central issue in the discussion of future biofuel targets (Solorio and Popartan, 2014, p.135, see also The Guardian, 2008).

Importantly, the Gallagher Review not only affected the conditions for deploying biofuels at the domestic level but also markedly influenced the RED discussions on the environmental and ecological impact of biofuels (Müngersdorff, 2009, p.36). In many aspects the UK government's hands were tied during the discussions of the RED, so the 2020 target was subjected to a pre-condition of the availability of second-generation biofuels by British negotiators (Berti and Levidow, 2014, p.142). As Müngersdorff argues, '[t]he UK played the maybe most ambiguous role in the whole policy-making process, trying to tighten the regulations of the Renewables Directive wherever possible and thus making most targets, including those in the biofuel sector, very difficult to achieve' (Müngersdorff, 2009, p.29). Britain's role was so ambivalent that, while pushing strongly for the consideration of indirect land-use changes under the RED (see Di Lucia et al., 2012), at the same time it fought any consideration of social criteria which might compromise World Trade Organization rules (Müngersdorff, 2009, p.37). Concerning the negotiations of RED's RES-T component, Britain behaved as a fence-sitter to its maximum possible expression, far away from the position of green member states like Germany or Denmark (see Chapter 3 on Germany by Vogelpohl et al. and Chapter 5 on Denmark by Dyrhauge).

Paradoxically, the 2013 Commission's report on the 2020 RES targets pointed out the fact that five member states dominated biofuels production and consumption in the EU: France,

Germany, Italy, Spain and the UK (COM, 2013, p.10). However, while biofuels consumption continues to grow domestically (especially for the case of biodiesel³), the fact is that Britain is still a long way behind the directive target of 10percent of RES-T (EUObs, 2015, p.8).

Therefore, it is no surprise that, as part of the British negotiation position for revised RES-T targets towards 2020 in 2013, the UK defended double counting from advanced biofuels as a formula to make achieving the 10 percent target for 2020 easier (Greenpeace, 2013).

6.5 Comparative analysis and conclusions

Given that until recently Britain's national energy policy was determined by the possession of North Sea oil and gas reserves, RES promotion was side-lined and subjected to market preferences for decades. It was only thanks to EU pressure that the UK started promoting both RES-E and RES-T (i.e. top-down Europeanization). However, this development has been constrained given the combination of Britain's capacity to actively shape EU renewable energy policy in a way that has considerably reduced adaptation pressures and the British preference for avoiding greater adaptation costs by implementing EU policies in a superficial or partial manner. Overall, while the UK stands as a successful shaper of EU renewable energy policy, its implementation record and the achieving of its RES goals are rather weak (closer to what can be expected from a fence-sitter or a foot-dragger). As far as the British case is concerned, looking at the interrelationship between the top-down and bottom-up dimensions of Europeanization is useful for understanding how policy change has been hindered both at the EU level and at the domestic level in the UK.

In terms of bottom-up Europeanization, the main focus of this chapter, in both the RES-E and RES-T cases the UK has steadily attempted to debilitate EU policies. However, the main

difference between them is that the Commission's market-oriented approach towards the promotion of RES-E gave the UK a central role during the negotiation processes. This was so much so that, in spite of the fact that the UK is not a leader in RES-E promotion, it acted as a pace-setter during the RES-E directive and the RED negotiations (at least concerning the debate on support models). Not surprisingly, the British position on RES-T has been closer to that of a traditional foot-dragger. However, it is revealing that Britain has taken a pragmatic stance through its recurrent fence-sitting strategy: building changing coalitions with pace-setters and foot-draggers depending on the most convenient option for the national interest. This happened during the RED negotiations concerning the debates on support schemes for RES-E and during the debates on biofuels sustainability criteria.

Across time, the UK's positions on the different negotiation processes have been affected by both top-down and horizontal Europeanization processes. The most evident case of the former is the way in which the British position during the negotiations for the RES-T component of the RED was affected by domestic (negative) reactions following the implementation of the biofuels directive. For the latter, the clearest example is the support given by Britain to the TGCs model just at the time when the Commission was pushing for the homogenization of European support systems during the RES-E directive negotiation, soon afterwards adopting the RO. Horizontal Europeanization has also been present in the adoption of instruments for domestic biofuels promotion (first with tax exemptions and then with consumption obligations). However, it is important to remark that, given the fact that the UK does not have a strong vested interest in RES promotion –for either RES-E or biofuels – the adoption of a certain policy instrument has influenced but not determined the British

negotiating position. In this sense, it is important to remark that these observations on the interrelationship between the different Europeanization processes, and between them and the British negotiating position, have only been possible thanks to the adopted circular Europeanization approach.

All in all, this chapter has made the case for the British playing the role of an awkward partner who has been able to significantly shape EU renewable energy policy according to national interests but has been incapable of meeting its domestic commitments on RES promotion. After successfully subordinating RES promotion in the EU to climate mitigations goals, the UK has opted to abandon the 'European boat'. The British legacy is a EU renewable energy policy weakened in terms of objectives and renationalized in terms of governance (see Chapter 2 by Solorio and Bocquillon). Finally, it is important to note that this chapter has contributed to the understanding of the complex relationship between the UK and the EU in terms of RES promotion. However, two central elements remain to be elucidated. On the one hand, the top-down impact of Europeanization has still to be further unravelled. Considering the Brexit decision, it is important to shed light on what the actual EU legacy for the UK's (renewable) energy policy has been. On the other hand, while this research has showed how the UK has shaped the EU renewable energy policy according to national preferences, it remains to be further explained how these preferences are formed and what are the particular interests behind the positions defended by Britain at the EU level.

Notes

¹ The RO is the main support mechanism for the deployment of large-scale RES-E projects in the UK.

² FITs in the UK were announced in 2008 but implemented only at the end of 2010.

³ The consumption of biodiesel rose sharply, from 766 million litres in 2013 to 955 million litres in 2014. In contrast, bioethanol remained practically static – 819 million litres in 2013 compared to 812 million litres in 2014 (EUObs, 2015, p.7).

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7. The fuzzy Europeanization of the Italian renewable energy policy: the paradox of meeting targets without strategic capacity

Maria Rosaria Di Nucci and Daniele Russolillo

7.1 Introduction

In Italy, until the middle of the 1990s (roughly corresponding to the period of the political system known as ‘prima repubblica’, before the radical change in constellation of the political parties) the national ‘raison’ and economic interests prevailed over European institutional pressures and developments. Even the strategic decisions of the nationalized energy utilities were arranged by the dominant political party coalitions (Prontera 2010, p. 497). A shift from the domestic rationale was first sparked by European Union (EU) regional and cohesion policies, where Europeanization promoted an alteration of the domestic opportunity structure through the allocation and administration of the cohesion and structural funds (Zerbinati, 2004; Brunazzo, 2007). Then followed the case of competition policy, where the realization of the internal energy market and the subsequent liberalization of the energy markets fostered a significant transformation of the Italian energy system and policy.

A cursory review of the academic literature reveals that there are hardly any analyses of the Europeanization of Italian energy policy, let alone renewable energy policy. Most of the literature addressing the Italian case concerning the development of renewable energy sources (RES) focuses on the efficiency of supporting instruments, but barely on the EU impact on national energy politics and policies. This chapter attempts to partly fill this gap. It concentrates

on the policy and regulatory framework and incentives in the fields of renewable energy sources for electricity (RES-E) and renewable energy sources for transportation (RES-T), and analyses the changes in national policy induced by Europeanization processes (both top-down and horizontal).

The chapter is structured as follows. Section 7.2 sketches the analytical framework whilst Section 7.3 discusses the major features of the RES-E policy development and argues for a Europeanization of the Italian electricity policy via regional and competition policy. Section 7.4 illustrates the current status of biofuels policy and shows that Europeanization has been only partially beneficial to the sector. Finally, Section 7.5 provides a comparative analysis and draws conclusions on whether the Europeanization approach represents an appropriate heuristic tool to explain the evolution of Italian RES incentives and policy.

7.2 Analytical underpinning and methods

Europeanization of Italian renewable energy policy can be considered partly as an outcome of EU competition (liberalization of the energy markets) and regional policy (especially structural policy and cohesion policy) encompassing institutional actors at the central level as well as institutions such as regions, provinces and municipalities. Aspects relevant to Europeanization of the cohesion policy have been highlighted amongst others by Graziano (2010), who focused on the policies of the late 1990s and early 2000s and argued that Italy witnessed a high degree of misfit between domestic and EU institutions. The regulations of the structural funds and the implications of Europeanization for local government in Italy were investigated by Zerbinati (2004) and Brunazzo (2007).

With regard to the Europeanization of Italian energy policy via competition policy, Prontera (2010) argues against the ‘goodness of fit’ approach (see Chapter 1 by Jörgens and Solorio) and considers such logic to be inadequate to explain policy change and policy development in the Italian electricity sector. He integrates the ‘goodness of fit’ framework with an analysis of the degree of institutionalization of national policies. Accordingly, in order to understand and evaluate Europeanization mechanisms, it is necessary to analyze the conditions and preconditions under which European policies interact with already existing national policies, and strengthen or weaken them. This chapter assumes that it is important to analyse the role of mediating factors such as national actors and institutions. In the same way, also ‘institutional misfit’ affecting changes in institutions and institutional powers can offer a useful angle, especially concerning the analysis of the devolution of regulatory competences to the regional level.

Europeanization in Italian RES policies is characterized by a continuous calibration between national distinctness, various pressures to adapt, and processes of mediation and response. Top-down Europeanization offers a major point of departure for the analysis. However, evidence for other types of Europeanization can also be expected, that is, a limited bottom-up and a notable horizontal Europeanization. As for top-down and bottom-up Europeanization, the focus of this chapter is on whether and how EU policy and domestic policy influenced each other, as well as on investigating the degree of convergence, bad mixture or co-evolution between European and domestic policies. This chapter also investigates whether the success and failures of previous or parallel experiences in other European countries, especially regarding the evolution of the RES-E promotion instruments, ended up triggering the decision to

adopt similar policies in Italy and whether and how domestic stakeholder groups insisted on their position or promoted change (for example horizontal Europeanization).

Empirical evidence to support the analysis in the RES-E field was derived from the project REALISE-Forum, which provides insights on the preferences and positions of the most relevant Italian stakeholders in the selection and implementation of instruments to support RES-E (Casale, 2006; Casale et al., 2007)¹. Apart from academic literature, official documents and statistics, drafts of laws, minutes of committee meetings, reports of hearings and conferences, press releases, websites as well as online journals were important sources for the analysis of stakeholders' positions. These sources were supplemented by the reports of EU collaborative projects financed under the Intelligent Energy Europe Programme (IEE), which dealt with the assessment of the incentive mechanisms for RES-E². For the case of biofuels, interviews with industrial actors and stakeholders were conducted in the framework of the IEE Project BIOTEAM³.

7.3 The development of RES-E in Italy

The evolution of RES-E in Italy is characterized by a discontinuous, incoherent energy, technology and industrial policy inhibiting the development of a national RES industry (Di Nucci, 2009). Nonetheless, in the last decade, there has been a sustained growth of RES. At the end of 2013, RES-E contributed to around 40 percent of the total installed power capacity in Italy and to 37 percent of the total gross electricity production (Terna, 2015). One of the grounds for such a steady growth is the rather generous incentive policy until 2014. The Italian support system is very complex and differentiates according to size and technologies, ranging from

Tradable Green Certificates (TGCs) to various forms of Feed-In Tariffs (FITs) and fiscal incentives. Moreover, RES-E is supported at a national level as well as by regions, provinces and local authorities.

7.3.1 Early RES-E development⁴

RES, notably hydroelectric and geothermal power, contributed substantially to the Italian electricity balance until the early 1960s. Afterwards, due to the cheap oil prices and a powerful petroleum lobby, hydroelectric power was substituted by oil-fired plants and Italy became heavily dependent on imported oil. Following the oil crisis in 1973, the diversification of the energy balance mainly occurred through substitution of oil with natural gas. After the oil crisis of 1979, the national energy plan (PEN), released in 1980 and revised in 1981, also included RES. In 1982, a piece of legislation (law 308/1982) set targets and financial incentives for RES as well as energy efficiency. It restricted the monopoly of ENEL, the state-owned electricity company (established in 1962 as Ente Nazionale per l'Energia Elettrica), by permitting generation up to 3 megawatts (MW) by independent power producers (IPPs) and enabled the delegation of some decisions concerning RES matters to regional governments. Additionally, various national research and development (R&D) programs provided support for the development of RES technologies and for the realization of pilot and demonstration plants.

In the aftermath of the Chernobyl disaster in 1986 and following the referendum in 1987 to phase-out nuclear power, the PEN of 1988 also indicated targets for the development of RES by the year 2000. Law 9/91 regulated authorizations to build hydropower plants and increased the liberalization threshold for RES plants from 3 MW to 25 MW. In the 1990s, the main instrument for RES development was, however, directive 6/92 of the Interministerial Committee for Prices

(CIP) issued to comply with law 9/91. By establishing premium prices for electricity generated by RES plants connected to the national grid, setting rules for the production of electricity through independent power producers, and introducing an obligation that allowed third parties to feed electricity into the grid, the directive dramatically changed the incentive policy for RES-E production. This scheme continued to be in use until 1995. Because the system was considered too costly, in 1996 the procedure was suspended and only projects with a siting commitment could be implemented. A major setback of the CIP/92 system was its failure to become a specific instrument for RES (Lorenzoni, 2002). In fact, roughly 70 percent of the total contribution was devoted to cogeneration and waste-to-energy, favoring large national electric and industrial groups (Di Nucci, 2005, p. 203).

7.3.2 The role of the EU regional and liberalization policies

The role of regional and cohesion policy

Italian regions have competencies for economic development, but their capacity for policy action remains limited, and central government still plays an important role in regional development issues. In the last decades, however, the role of the regions has been strengthened especially through a progressive devolution of competences, but also as a result of EU regional policy. Against this background, it is not surprising that the first stage of sustained expansion of wind power occurred in a time in which the transfer of powers from the central state to the regions took place, especially in matters concerning governance of the territory and energy planning. Regions started to grant capital cost subsidies, promoting the setting-up of competitive RES-E plants in addition to the available incentive mechanisms.

The implementation of the structural funds triggered a reorganization of the necessary administrative structures to implement regional development programs and to coordinate partnerships of public and private actors as part of the program management. These funds provoked an alteration of the opportunity structure of domestic actors and a strengthening of institutional capacity and efficiency of public administrations. Between 1987 and 1992, a large number of EU programs enabled local governments to access EU funds. In the energy field, the VALOREN program and the INTERREG program also played an important role. Although this participation represented a challenge to the regional institutions, who had limited expertise in implementing industrial policy, the activities of regional policymakers and actors encouraged European cooperation in the RES field. Changes were initially driven by pressure to adapt, but in a second stage learning and horizontal diffusion of EU best practices activated a capacity-building which not only included strategic planning capabilities, but also the political self-confidence necessary to promote at EU level positions and activities in line with national preferences (Brunazzo, 2010).

Moreover, the Europeanization of Italian regional policies promoted an increased participation of Italy in EU decision-making processes in this area, especially due to a stronger engagement of regional representatives in Brussels⁵. Italy managed not only to formulate a national position on the regulation of structural funds, but also to promote national interests during the relevant negotiation phases (Brunazzo and Piattoni 2004, p. 170)⁶. Thus, the participation of Italian regional actors in the definition of the EU cohesion and structural policy constitutes an interesting case showing a timid shift from a top-down to a bottom-up approach, or, to put as Brunazzo does (2010, p. 2), from the role of a ‘policy-taker’ to that of a ‘policy-shaper’.

The role of competition policy

The starting conditions in the Italian electricity sector showed no ‘goodness of fit’ with respect to the liberalization promoted by the EU. The reform was based on competition and market liberalization, all factors that were incongruent with pre-existent Italian policy characterized by a strong state intervention and dirigisme. In the middle of the 1990s, Italy took a neo-liberal stand concerning its energy market and embarked on a far-reaching liberalization and deregulation reform. The liberalization of the domestic electricity sector was triggered by the pressure to transpose the EU liberalization directives, which was perceived by domestic actors as the opportunity to start a reform and put an end to direct state participation. At the same time, the crisis of the party system that had shaped the national energy policy in the previous decade ‘disadvantaged the traditional players in electricity policy making and provoked a change in the structure of relationships in the policy field’ (Prontera 2010, p. 499).

The domestic debate on liberalization had been strongly influenced already in 1994-95 by the ongoing debate in the EU, especially in the UK (see Chapter 6 by Solorio and Fairbrass). The Italian reform took place in a political context characterized by great instability and loss of influence of traditional state actors. Paraphrasing Radaelli (2004), Europe represented the ‘solution’ to legitimate the willingness to reform and to change the underlying policy paradigm from state intervention to competition. Italy's electricity market underwent a steady process of liberalization with a restructuring process that lasted years and witnessed adjustments and novel developments regarding market rules, new market actors and institutions⁷. The national debate on reform was characterized by an improbable consensus among a wide range of actors on the necessity to transpose the EU directive into domestic legislation that embraced conservative as

well as leftist parties while only the trade unions opposed the reform. The center-leftist Prodi (1996-98) and the following D'Alema (1998-2000) governments catalysed an 'implicit' coalition of interest that achieved in a relatively short time a radical unbundling of the national electricity monopolist ENEL.

In 1999 the Bersani Decree transposed directive 96/92/EC and acted as a 'framework law' for restructuring the Italian electricity sector. It also brought about radical changes for RES development. Among other elements, the decree established TGCs and RES obligations (quota) for electricity producers and importers and introduced priority dispatching for RES-E as well as funds for specific incentives for RES-E to be managed by regional authorities, according to a tender mechanism. A reason for the adoption of the TGC system is that the EU in a first unofficial draft of the RES-E directive of October 1998 had already expressed preference for a support model based on quota systems (Arentsen et al. 2007, p. 4). This hampered the ambitions of some Italian RES stakeholders for a further adjustment of the previous CIP 6/92 FIT. The previous system was labelled in the political debate as a distorting, dirigistic instrument.

In the liberalization process of the Italian electricity market there can be found top-down Europeanization, but at the same time also elements of learning (for example horizontal Europeanization). The fact that other countries had also abandoned FITs schemes (Denmark, see Chapter 5 by Dyrhauge) and that in the UK, a country that had served Italy as a model for the liberalization of the energy sector, a renewables obligation (RO) certificate scheme was going to be introduced (see Chapter 6 by Solorio and Fairbrass), may have been a strong motivation. The introduction of the quota and TGC was triggered by the anticipation that the national policies would be harmonized and that quota and TGCs would be the dominant instruments. This choice

was reinforced by the expectations that a market-oriented type of support would be more compatible with the internal electricity market.

7.3.3 The implementation of the 2001 RES-E directive: progressive adaptation to EU policy change and changing stakeholder positions

During the negotiation of the 2001 RES-E directive, Italian officials saw the EU policy as an opportunity to reinforce domestic electricity policy. Even actors that traditionally were against major changes in the electricity field (for example, the ex-monopolist ENEL and the trade unions) did not challenge the principles of the directive. The transformation took place in a voluntary, non-coercive way and the decision-makers were eager to gain a new role. This applies in particular to the new actors established by the liberalization reform and the role played by the newly established transmission system operator GRTN (Gestore Rete Trasmissione Nazionale). As the Italian issuing body responsible for the certification of generation plants and for issuing the guarantee of origin (GO), GRTN had a representative on the Board of the European Association of Issuing Bodies and actively engaged in the development of the RECS (Renewable Energy Certificate System) initiative which started a voluntary market for trading in 2002.

The RES-E directive was transposed into national legislation by decree 387/2003 in December 2003. Italy adopted an indicative target of 22 percent for RES-E by 2010. It strengthened and widened the previously existing instruments and rulings, coordinating and defining procedures and lead times for the authorization of plants and connection to the grid. The mandatory quota and TGC scheme was regulated in detail by subsequent laws in 2005. However, several provisions to be transposed needed further implementing actions, most of which were taken subsequently in 2005 (for example, FITs for photovoltaic (PV) or the new Decree on TGC)

or even later in 2006 and 2007⁸. Whereas the ministry of the environment remained largely apathetic, the energy policy of the conservative Berlusconi government was dominated by the industry-friendly stance of the ministry of industry that finally presented a rather controversial decree to be followed by law 239/2004 (the so-called Marzano law) allowing faster permitting procedures.

An important milestone opening the national debate and leading to a revision of the Italian incentive system was the release in December 2005 of the first evaluation report of the European Commission on RES-E support (COM, 2005) followed by a second report a year later (COM, 2007). The evaluation showed that the FITs system had become by far the dominant support model in Europe and its performance in terms of effectiveness and cost efficiency was compelling. For the European Commission, harmonization was no longer a short-term objective and the focus of policy moved from harmonization and one predominant EU-wide mechanism to co-existence of mechanisms and supranational/regional coordination (Arentsen et al., 2007; Toke, 2008).

A progressive shift of positions and viewpoints of Italian stakeholders and decision makers took place, a typical case of adaption to EU pressures. But at the same time there were also unmistakable signs for horizontal Europeanization mechanisms and change of policy through policy diffusion and imitation. In this regard, the additional support system based on FITs introduced for PV in October 2005 counteracted some of the shortcomings of the TGCs model and introduced a technology oriented model based on premium FITs as in Spain (see Chapter 8 by Solorio and Fernandez), thus following the trend of FITs diffusion in the EU (Busch and Jörgens, 2012). This move was supported by the major RES stakeholders. In this

context, a new ministerial decree of February 2006 rendered the previous conditions of July 2005 (granting FITs to PV plants over 20 years) even more favorable (higher ceilings to overall capacity of funded projects). Legislative decree 152/2006 extended the availability of the Quota/TGCs scheme from eight to twelve years. At the end of 2007, the Italian government introduced some new provisions for RES-E and small generators had the choice between selling their TGCs and opting for FITs. A survey of the REALISE-Forum project reveals that in 2006 Italian stakeholders having experience with both the FITs and the quota-TGCs system, on average assessed the FITs support system as more effective and fairer with respect to the various RES technologies than the quota-TGCs system.

Government officials learnt from the experience of other countries and started considering the success in the expansion of RES mostly as a result of the support policies, for example FITs. Horizontal Europeanization started affecting changes in the preferences and position of domestic actors. A wide range of Italian institutional and economic actors found it beneficial to support a policy change towards similar lines as successful countries in RES promotion (for example Germany and Spain). The FITs-system was perceived as less complicated and stakeholders showed willingness to change support scheme⁹.

7.3.4 Italy and the climate and energy package: the push for GO trading

Within the Energy Council, Italy opposed in 2007 the introduction of binding RES-E targets. However, dissent also grew about the indicative target. The Italian ministry of economic development, which was in charge of the transposition of the RES-E directive, supported RES-E trading and the Commission seemed to look sympathetically at the possible addition of imported RES-E for achieving national targets, provided that any possible 'double counting' could be

avoided. Italy pursued the voluntary certification of RES-E plants. The GRTN recognized the GO issued in other EU countries and not only engaged at EU level for issuing the GO for disclosure, but also for the voluntary market and for target counting. The aim was to use certification in the case of imported energy for the exemption of green certificate and quota systems. In September 2008 the Italian government published an assessment carried out with the support of several ministries, following a consultation with industry, which found that the maximum theoretical potential for RES-E in Italy would be around 21 million tons of oil equivalent (Mtoe) and that consequently the goal of 17 percent was difficult to reach. Against this background, RES-E trade and imported certified RES-E represented a means to reach the indicative target with less domestic RES-E generation. Moreover, the inclusion of national binding targets into the 2009 RED was perceived by political and industrial stakeholders as too big a challenge and an imposition to modify the energy mix¹⁰.

It could be claimed that in that period there was an attempt to push for standardized GO, disclosure, redemption and labelling of RES-E. Stakeholders such as the transmission system operator and GSE (Gestore Sistema Elettrico, later replacing part of the activities of GRTN) favored the establishment of a common framework of rules ensuring fair access of RES-E to the market and the electrical system and also got involved in various EU initiatives and projects. Italy, however, was not able to achieve any success in the EU negotiations.

The legislative decree of March 2011 transposed the 2009 RED (opening the way to RES 'target flexibility') into national law, also regulating statistical transfers and joint projects. The target flexibility (share to fill the gap between the 2020 RES target and the domestic RES deployment) was designated to be 0.8 percent (1.1 Mtoe) of the gross final energy demand to be

met through flexible cooperation mechanisms. The law however stated that cooperation should be enhanced only in case the interim target for 2016 could not be achieved (MSE, 2013).

The law aimed to ‘to strengthen and rationalize’ the RES support system and to reach the double objective of increasing RES-E in line with European objectives and of reducing subsidies¹¹. The level and procedures for the extension of the FITs system, however, were not considered and important details for a new incentive system were postponed to subsequent legislation to be enacted within twelve months after approval of the law. The debate that surrounded the law was characterized by a diversity of positions, but all stakeholders were in favor of re-introducing a FITs system, even though RES-E producers received lower incentives than those enjoyed through the TGCs scheme. One of the reasons was that banks were more willing to finance projects when the tariff is guaranteed over time. In this regard, the law stated that for wind farms starting operations after 2012 the TGCs system should be replaced by FITs. Wind farms operational by 2012 should continue to receive TGCs until 2015 before being absorbed into the FIT system (O’Brian, 2011).

In compliance with the 2009 RED, incentives for PV originally expected to run from 2011-13 were possible only for plants connecting to the grid by the end of May 2013. The sudden change in the support scheme provoked the strong protest of the Renewable Energy Producers Association (APER for its Italian acronym, *Associazione Produttori di Energia da fonti Rinnovabili*), the organization representing over 400 Italian RES-E producers who contacted the by then Energy Commissioner Oettinger and asked to put pressure on the Italian government¹². Although there was a clear aim to reach the 2020 targets, the large number of laws and decrees issued to comply with the directive did not seem to possess the necessary strategic orientation. According to APER, this would condemn Italy to the role of ‘follower’ in a ‘double-speed’

Europe¹³. The successive ministerial decree of July 2012 introduced the so-called Fifth Energy Incentives Plan for RES-E plants other than PV.

Under the following Monti government, in March 2013, the ministry of economic development released the final version of the 2020 National Energy Strategy (MSE 2013). The report indicates that the future electricity mix has to rely on natural gas and RES-E and sets more ambitious targets than in the NREAP (a share of RES-E of 35-38 percent, above the target of 26 percent and the RES share in the gross final energy consumption of 19-20 percent). This adjustment was the obvious consequence following the massive deployment of PV plants in 2010 and 2011. The so-called 'Destinazione Italia' decree of December 2013 amended the regulatory framework for RES plants and biofuel targets.

In the last years the incentives system underwent a drastic restructuring in line with other EU countries. In the recent plans to put a limit on solar incentive under the new PV support scheme, and in the attempts to scrap incentives from 2017, elements of imitation (horizontal Europeanization) can be found since the annual limit on installed PV capacity is in line with the activities in other European countries such as Spain (see Chapter 8 by Solorio and Fernandez).

7.3.5 Progressive change of position prior to the 'climate and energy package 2030'

The Italian position in terms of targets has changed enormously in the last years. Whilst in 2009 there was still a large consensus about keeping lower targets for GHG and RES, this position gradually changed in the following years. On the eve of the negotiation on the 2030 climate and energy package, a coordination group led by the advisor for European affairs of the cabinet and a meeting of various ministers (environment, European policies, economic development) was established in 2013. In the period preceding the Italian presidency in the second semester of

2014, the government tried to show engagement in sustainability and climate protection issues and joined the league of the 'green' European countries. This attitude is somehow surprising especially considering that in September 2013 Italy was involved in an infringement procedure regarding the transposition of the 2009 RED. However, there are clear signs of 'Europeanized' positions of Italian officials. During the Brussels summit of EU leaders of October 2014 to agree on targets to reduce GHG and increase RES and energy efficiency, Italy favored setting the binding target for RES at 27 percent (EurActiv, 2014). The Italian ministry of environment was amongst the 'Green Growth' group ministers who issued a joint statement on 18 December 2014 calling for early action to strengthen the EU emissions trading scheme and introduce legislation to reach Europe's GHG commitment of at least a 40 percent reduction domestically. The signatories recognized 'the important role of renewable energy, energy efficiency and other safe and sustainable low carbon technologies in meeting the EU 2030 targets and broader EU energy policy objectives cost-effectively, and welcome the planned review of the energy efficiency target by 2020'.

7.4 The development of biofuels in the transport sector in Italy

7.4.1 The beginnings of the biofuel policy in Italy

Production of biofuels in Italy started in 1993 with NOVAOL in Livorno, the first biodiesel facility in Europe. The main push came from the early concept of green chemical industry defined by the leading Italian group Montedison. This concept had a twofold objective: create new growth opportunities for the Italian chemical sector and try to cover the need for cleaner fuels to fight local pollution. A similar trend was taking place in the same years in France and

Germany (see Chapter 9 by Bocquillon and Evrard and Chapter 3 by Vogelpohl et al.), the other two forerunners in Europe, and the industrial sector association European Biodiesel Board (EBB) was founded, building upon the contacts between the industrial representatives in these three countries (Interview 1). The industrial achievement of NOVAOL was preceded and accompanied by an efficient lobby activity that instigated the establishment in the mid-1990s of the first national tax exemption scheme for biodiesel supplied to final users. The industrial biodiesel achievement at the end of the 1990s can be seen as the outcome of the strong interest of the farming lobby to contribute to the mitigation of climate change and expand the growth possibilities of the agricultural production (Rocchietta, 2002).

7.4.2 Italy and the biofuels directive

7.4.2.1 The early phase of implementation

During the negotiations leading up to the adoption of the biofuels directive, Italy was in favor of setting binding targets for biofuels at the EU level. Taking into account industry support for biodiesel, this position is not surprising and follows the positions of France and Germany (Rocchietta, 2002). At the beginning of 2003, the main Italian industrial associations involved in transportation fuels concluded a relevant agreement for a structural cooperation on biofuels (Staffettaquotidiana, 2003). A few months after the entry into force of the biofuels directive during the Italian EU presidency, industry minister Marzano highlighted the need to reduce asymmetries in energy issues in Europe, among other things in energy taxations and fiscal incentives for biofuels (StaffettaQuotidiana, 2003).

The second and third Berlusconi governments in place from mid-2001 to mid-2006 were in charge of transposing and implementing the biofuels directive in the transport sector. It was transposed only two years after adoption through the legislative decree 128/2005 and the reference target to be achieved by the end of 2005 was set at 1 percent, half the target of 2 percent suggested by the biofuels directive. Moreover, annex II of article 8 of the legislative decree 128/2005 specifically stated that the less ambitious biofuels targets for Italy had to be understood in the framework of the 'limited national production potential of biofuels' on national territory. It could be claimed that industrial capabilities and technology were available and fully adequate to support a biodiesel pathway, but problems arose in relation to the primary energy (for example biomass cultivated on national territory), especially in conjunction with the food/feed issue and the fight of the environmental lobbies against first generation biofuels.

In 2005 the government launched a fiscal policy which envisaged a quota system for producers eligible to receive annual excise exemptions (tax relief). The official implementation reports sent by the member states to the Commission (Italy Report, 2007) include the specific quota as well as the injection into the grid, fiscal deductions, and so on. This tax relief can be considered an example of modest horizontal Europeanization, even though the presence of more binding targets and more structured tax reliefs in other member states did not prompt a similar outcome in Italy.

7.4.2.2 The role of RED and the situation in Italy between 2009 and 2013: what kind of Europeanization?

With regard to RES-T in the RED of 2009, Italy has taken a rather passive stance, demonstrated, for example, by the postponement of the adoption of sustainability criteria for biofuels until the

publication of the ministerial decree of 2012 (Ministero dell'Ambiente, 2012). These criteria were criticized by industrial operators for not providing a stable and calculable legal framework as had been requested by the business sector (Confindustria, 2011). The domestic policy was not particularly affected by the mandatory targets, but in 2013 operational tasks were transferred from the ministry of the environment to the ministry of economic development.

The analysis of consumption data shows a patchy and uneven trend of demand in the sector, with a decrease of consumption in 2012 compared to 2011 mainly due to the effect of the economic crisis and the uncertainties around the European legislation (Eurobarometer, 2013 and Eurobarometer, 2014). The strong difference between the production capacity and the actual production tells a story of overinvestment in the biodiesel sector that is common in the EU. In 2012, the average ratio in EU-27 between actual production and production capacity was 48 percent well above the share of 12 percent achieved in Italy (Eurobarometer, 2013; Assocostieri, 2012; MSE, 2012). Biodiesel demand was met progressively through imports from countries using incentives to export the product or feedstock, for example soybean from USA or Argentina (Cocchi, 2011; Di Mario et al., 2011). In 2011, the breakdown of renewable fuel consumption in the EU-27 was in energy terms 80/20 in favor of biodiesel, whereas in Italy in the same time the ratio was 92/8, showing a relatively small importance of bioethanol in the Italian transport sector (Eurobarometer 2013). Despite this relatively minor interest, the Italian Mossi & Ghisolfi Group launched the pre-commercial operation for the world's first second generation bioethanol plant, based in north-west Italy.

The discussion above reveals that Europeanization (both top-down and horizontal) has been rather weak in the Italian biofuel sector. The low degree of adaptational pressures might explain the negative trend on domestic biofuel policy. This in turn was made structurally worse

by the effects of the financial crisis on fuel consumptions and by some cultural and socio-economic issues and indirect land-use change debate, as well as the intrinsic difficulty of assessing the sustainability of such a pathway (Rocchietta, 2014; BIOTEAM, 2014). Moreover, the aforementioned transfer of energy competences to the regions and the EU regional policy were not able to generate effective actions by regional governments in the biofuel sector (Interview 1) as in the case, for example, of the wind energy sector.

7.4.2.3 RES-T in Italy towards the 2030 targets

At the end of 2013, law decree n.145 of December 2013 limited the national consumption obligation for biofuels in energy terms to 4.5 percent. Nevertheless, at the end of 2014, at the end of the Italian EU presidency, new targets were set by the Italian government. With binding targets for 2022 ensuring the RED target of a 10 percent share of RES-T from total fuel consumption by 2020 (MSE, 2014). With respect to biomethane, Italy is still a laggard when compared to Germany (see Chapter 3 by Vogelpohl et al.). In fact, the decree issued at the end of 2013 lacked a full regulatory framework for biomethane, still to be defined by the national energy regulatory authority, and this caused strong discontent among industrial operators (Quale Energia, 2014).

With regard to the discussions about the ILUC Directive, the Italian position has been in favor of the decoupling of bioenergy pathways and food cultivation, and in fact the agreement of December 2014 of the EU Energy Council on the ILUC directive was led by the Italian EU presidency (EurActiv, 2014). As for the discussion of the 2030 package, the Italian position was cautious since the very beginning, putting on the table the needs for a deep regulatory impact analysis (Governo Italiano, 2014).

7.5 Comparative analysis of RES-E and biofuels and concluding remarks

The reconstruction of the Europeanization process in Italian RES policies has shown on the one hand that the impact of EU policy has led to varying degrees of domestic policy change and that some national actors have managed to exploit the adaptational pressures deriving from Europeanization to enhance a reform of the Italian energy and regional policy. On the other hand, it has illustrated that Italy has hardly been able to gain presence in Brussels, at least during the crucial phases of decision-making, as in the case of the target flexibility. Undeniably, Europeanization influenced Italian policy-making and affected changes in objectives as well in the regulatory framework and support system for RES-E and partly RES-T. The path followed, however, has not generated a coherent policy which could provide adequate responses to the EU policies.

Paradoxically, Italy had already managed to achieve the targets envisaged by the 2009 RED¹⁴. The RES share of gross final consumption reached 11.5 percent in 2011 – 2.9 percent above the intermediate target of 8.6 percent set by the RED. According to recent data (Eurostat, 2016) Italy reached a RES-E share of 17.1 percent in 2014 (achieving the national RED target 6 years prior to the deadline). Also in the RES-T sector Italy is on track to achieve the target of 10 percent by 2020 (MSE, 2014). However, achieving EU targets makes Italy neither a forerunner nor a case of best-practice in the transposition of EU directives. Rather, this achievement demonstrates that it is possible to attain EU targets even without attempting to upload policies linked to national policy preferences or by transposing EU legislation in a timely way.

Except for the formal transposition of EU directives into national law, Europeanization in the Italian RES sector was relatively weak and occurred mostly through horizontal mechanisms. Horizontal Europeanization in the biofuels sector could be observed in setting up the trading scheme and the national voluntary scheme for sustainability certification. In the RES-E sector similar processes could be observed with regard to market based certificate trading systems such as TGCs.

As far as horizontal Europeanization is concerned, it appears that in the 1990s a wide range of Italian institutional and economic actors found it beneficial to adjust to EU pressures and to support a policy change along similar lines as successful countries especially in the promotion of RES-E, such as Germany and Spain and, on a minor note, in the promotion of biofuels, such as France and Germany (see Chapter 9 by Bocquillon and Evrard and Chapter 3 by Vogelpohl et al.). In general, whilst for the RES-E case it can be claimed that the success and failure of previous or parallel experiences in other European countries ended up prompting the decision to adopt similar policies and domestic stakeholder groups moved from their original position and promoted change, this aspect of horizontal Europeanization was much weaker in the case of RES-T for biomethane and only partially worked for the biodiesel sector. Against this background, we can talk about policy change triggered by a combination of ‘spontaneous’ policy diffusion for RES-E as well as of pressures coming from an unusually compact domestic coalition of interests pushing for reform.

In conclusion, the case of Italy underlines that EU renewable energy policy can provide a model around which to redesign a domestic policy, but that for this to take place actors able to exploit adaptational pressures or willing to learn from best cases are indispensable. Italy did not succeed in being influential and complying effectively and timely with EU policies and

institutional pressures, with resulting technical and political hitches in the design of an effective energy policy.

Notes

¹ REALISE-Forum (Renewables and Liberalization in Selected Electricity markets), coordinated by the Freie Universität Berlin and supported by the European Commission under the Intelligent Energy Europe Programme (2005-07).

² The major results of these projects can be found under the Intelligent Energy Europe-EACI website <http://www.eaci-projects.eu/iee/page/Page.jsp?op=home>.

³ See www.sustainable-biomass.eu

⁴ This section draws on Di Nucci (2007).

⁵ This view has also been expressed by regional representatives in Brussels during interviews, for example with Simona Costa of Casa Liguria.

⁶ The state of progress for the 2007-13 EU budget programming shows that Italy has used just 40 percent of its share of EU regional funds (EurActiv Italy). In the period 2014-20 Italy receives about €29 billion of EU funds for regional projects to be matched by an equivalent amount from its own budget.

⁷ For details on the liberalization of the electricity market see Polo and Scarpa (2003) and Di Nucci (2004).

⁸ Further Legislative Decrees implementing the EU directive raised the initial RES-obligation of 2 percent by 0.35 percent per year for 2004-06 and further increases of the minimum obligation quota were adopted for the period 2007-09 and 2010-12.

⁹ The Italian Quota/TGCs scheme could be considered as a 'mixed type' scheme as the TGC market price was not set by the free play of demand and supply only, but it was regulated in order to provide investors with adequate revenues, at least in the short term. These characteristics

render a shift to a full FIT system easier than in countries with a fully market-based TGC scheme.

¹⁰ See also the interview of Gatta, the then chairman of the Italian Association of Electricity Enterprises (Assoelettrica) by Euractive: Italian renewables target 'unreachable' in EurActiv from 7 February 2008 accessed on 8 December 2014 at <http://www.euractiv.com/energy/gatta-italian-renewables-target-unreachable/article-170176>

¹¹ This is a quote from an Italian government statement reported on the webpage of the law library of congress: Italy: Renewable Energy Law Adopted accessed on 27 April 2014 at http://www.loc.gov/lawweb/servlet/lloc_news?disp3_l205402587_text

¹² See

(http://www.aper.it/public/sitoaper/FontiRinnovabili/pAper/2011/18_04_11APER_Oettinger.pdf).

¹³ The European Commissioner sent a letter to the then minister for economic development and requested to increase efforts to transpose the Directive 2009/28/EE and to set up 'a clear, stable and predictable support scheme for the solar energy sector and ensure stability for investors' (Reuters 2011), <http://in.reuters.com/article/2011/04/18/us-italy-renewables-oettinger-idINTRE73H44720110418>)

¹⁴ Data from national monitoring system SIMERI, last accessed on 15 January 2015 at <http://approfondimenti.gse.it/approfondimenti/Simeri/Monitoraggio/Pagine/C1.aspx>

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Interviews

Interview 1: Claudio Rocchietta, former CEO of NOVAOL and founder and first president of EBB. Telephone interviews: February 2014, January 2015

Interview 2: Antonio Sileo, Transportation fuels expert and researcher at the IEFIE Institute, Bocconi University, Milan.

Interview 3: Simona Costa, representative of CasaLiguria in Brussels

8. Spain and renewable energy promotion: Europeanization upside down

Israel Solorio and Rosa Fernandez

8.1 Introduction

It is hard to speak about renewable energy sources (RES) in Spain without alluding to the role the European Union (EU) has played in its promotion at the national level, both in the case of RES for electricity (RES-E) and biofuels. Since its accession in 1986, Spain benefitted from EU regional funds, complementing the early attempts of RES promotion at the national level with European-funded development projects. The later liberalization of energy markets in the EU deeply impacted on the national energy policy, also affecting the perspectives for RES deployment. Both are examples of a top-down relationship between the EU and Spain. As the EU renewable energy policy was taking shape though, Spain emerged as a decisive actor for the negotiations of the early legislation on the subject (the 2001 RES-E directive and the 2003 biofuels one), uploading some elements of its policy while blocking others that would have represented considerable adaptation costs (i.e. bottom-up Europeanization). However, many things have changed since then in Spain, affecting the conditions for RES development and, consequently, the Spanish position towards EU policy. On the one hand, Europeanization has notably influenced the domestic scenario with mixed results in terms of policy change. On the other, economic crisis shifted the political priorities for the national government, with cutbacks

greatly affecting the support for RES at the national level despite the EU's reinforced regulatory framework.

Once considered a European example of successful policies for RES promotion, the post-crisis Spain is in the spotlight for having reversed its policy slashing subsidies – changing radically the regulatory framework since 2008 and therefore affecting the investment environment. The dismantling of the national renewable energy policy has reached such a degree that in 2015 the European Commission warned that Spain ‘need to assess whether their policies and tools are sufficient and effective in meeting their renewable energy objectives’ (COM, 2015a, p. 5). The negative performance of Spain in terms of the implementation of EU legislation might be simply seen as a collateral effect of the financial crisis if not for the key influence Europeanization had along this process, both in good times and in bad. To put it simply, Spain – and its renewable energy policy – is a case study representative of the complex interrelationship between the developments at the European and the national level and the unanticipated outcomes of policy change and resistance that Europeanization produces in member states.

This chapter argues that, beyond the economic cycle, the explanation on the expansion and retrenchment of the Spanish renewable energy policy importantly lies in the interaction between European factors and the domestic scenario. Drawing on the Europeanization literature, it focuses on the following questions: How did Europeanization, in spite of the limited adaptational pressure, stimulate policy change at the national level? Which has been the Spanish role in shaping the EU renewable energy policy and how and why has this role changed over time? The remainder of this chapter is organized as follows. Section 8.2 further

elaborates on the Europeanization framework. Particular attention will be paid in explaining the Europeanization potential without a significant degree of misfit and to the concept of ‘circular Europeanization’. Section 8.3 presents the case of RES-E in Spain, while Section 8.4 develops the case of biofuels. Section 8.5 carries out a comparative analysis on the Europeanization in both sectors, including the dynamics of policy change and resistance.

8.2 Analytical underpinnings and methods: Europeanization as a process

Europeanization literature is fundamentally about policy change (see Exadaktylos and Radaelli, 2012; Coman, 2014). But as Europeanization literature has reached its maturity, the understanding about the multiple paths in which policy change takes place has become more complex. The early trend of Europeanization studies put the focus on the EU transformative power by means of the adaptational pressure placed on member states (Risse et al., 2001, p. 7), where the –top-down– Europeanization ‘pressure is a function of the degree of fit (misfit) or congruence (incongruence) between “Europe” and the domestic level’ (Caporaso, 2007, p. 29). However the empirical evidence suggested that misfit might not always occur, so Bulmer and Radaelli (2004, p. 9) argued that the ‘goodness of fit’ argument is ‘valid only under certain conditions’; namely, when there is a presence of EU policy templates or models. The difference between approaches is not minor, considering that the less strict the policy is the more space there is for domestic actors – as mediating factors or intervening variables – to influence the adaptation process.

Additionally, another debate emerged in parallel concerning national reactions to European integration (i.e. bottom-up Europeanization). While early understandings defined

bottom-up Europeanization as the part of the process where member states' negotiation strategies are designed to 'maximize the benefits and minimize the costs of European policies' (Börzel, 2002, p. 196), most recent arguments establish that 'Europeanization can only be a useful tool [...] if it takes into account the effects of feedback stemming from domestic resistance to change' (Saurugger, 2014, p. 182). This critique has led to the notion of circular Europeanization, in which 'incremental Europeanization gives rise to contention which in turn can lead to actors demanding either increased or decreased supranational governance' (Coman, 2014, p. 3). This argument is in line with the notion of Europeanization as 'usage' (Woll and Jacquot, 2010; see Chapter 9 by Bocquillon and Evrad for its application on the French case), which places a stronger emphasis on the role of domestic actors and their reaction to EU policies.

Departing from this revisionist perspective concerning the feedback loops in the EU policy-making and considering that the different types of Europeanization posited in chapter one can occur within the circular Europeanization (i.e. top-down, bottom-up and horizontal Europeanization, see Chapter 1 by Jörgens and Solorio), this chapter tracks the complex interrelationship between the developments at the European and the national level in Spain since the emergence of the 2001 RES-E directive and 2003 biofuels directive until the negotiation and adoption of the 2030 RES targets. Given the Spanish forerunner position in RES promotion and the flexible nature of the EU renewable energy policy (see Chapter 2 by Solorio and Bocquillon), a particular analytical challenge for this chapter is to investigate how Europeanization was possible without the misfit element. It is because of that reason that we pay particular attention to the alteration of domestic opportunity structures and the changes in

the beliefs and expectations of domestic actors as potential explanatory factors on how the EU promoted policy change in Spain (see Knill and Lehmkuhl, 1999). In line with the circular Europeanization trend that focuses on 'how the norm developed at the EU level has been influenced by domestic debates, positions and power games between actors' (Saurugger, 2014, p. 184), a central aspect for this chapter is to explore whether Europeanization has facilitated the emergence of a 'winning coalition' supporting the introduction of new rules in favor of RES or rather it has provoked the emergence of 'veto points' at the national level that have later reacted either in favor or against more supranational governance in this policy area.

In methodological terms, this chapter adopts not a linear but circular approach to Europeanization. Hence, it looks at the 'European integration and its influence at the national level, which in turn influences European integration anew' (Saurugger, 2014, p. 184). The interdependence between X –representing the EU– and Y – representing the national level – adds its own complexity to the study of EU policy-making (Radaelli, 2012, p. 10), aggravated by the existence of domestic actors playing the role of intervening variables – both for the national adaptation to EU pressures and for shaping national positions during the negotiations at the EU level. This methodological complexity is tackled by means of a process tracing that allows us to get a clearer picture on the causal path followed by Europeanization as a circular process of policy change and resistance. This longitudinal analysis is based on a research project carried out between 2008 and 2013 on the impact of the EU renewable energy policy on Spain. In the framework of this project, semi-structured interviews were conducted with civil servants, business representatives and environmental non-governmental organizations (ENGOS). The information gathered with those interviews was complemented with a document analysis both

from primary and secondary sources, inquiry that has been updated for the purpose of this chapter.

8.3 RES-E in Spain: the power of belief and the counter-power of veto points

8.3.1 Background

The Spanish renewable energy policy got its start in the early 1970s. By then Spain had a high level of dependence upon imported energy resources (Dinica and Bechberger, 2005, p. 264) and, as a reaction to the 1970s oil crises, the Spanish government took specific steps towards the development of RES-E, mostly in the area of research and demonstration projects. The first piece of national legislation that considered a support scheme for RES-E was issued already in 1980, with the law 82/1980 on energy conservation. The accession to the EU in 1986 allowed the flow of economic resources that came to strengthen the incipient Spanish policy renewable energy policy. This context facilitated a favorable starting point to Spain concerning RES promotion in comparison with other European countries (Reiche and Bechberger, 2004, p. 844). By 1990 the Spanish share of RES in gross inland consumption was already a 6.7 percent, the seventh of the EU-15.

During the 1990s the domestic opportunity structure for RES promotion was importantly affected by the liberalization of the EU energy markets, which meant for Spain the adaptation of its electricity sector to the market rules. In this context, a special regime for RES-E production was defined, which was the basis for the Spanish Feed-In Tariffs (FITs) support schemeⁱ already in 1994 (Dinica and Bechberger, 2005, p. 263). By that time the EU renewable energy policy was

in the making and Spain, as a European forerunner, was an influential actor during its formation (Interview 1). Not only the Spanish government hosted in 1994 the ‘Madrid Declaration’, the initial step that conducted towards the White Paper as the landmark piece of the EU renewable energy policy (see Chapter 2 by Solorio and Bocquillon). But Spain also demonstrated to be a pace-setter during the negotiations at the European level, strongly pushing for the 12 percent of RES that was finally adopted in the White Paper – subsequently followed by the RES-E and biofuels directives – (Interview 2) and a good student in the implementation of the European agreements. Soon after the launching of the RES White Paper (November 1997), Spain published a piece of legislationⁱⁱ that detailed issues such as the support scheme for RES-E and the 1999 Plan for the Promotion of Renewable Energy picked up the 12 percent RES objective by 2010 (Solorio, 2011, p. 111).

8.3.2 The first RES-E directive: No misfit, but something changed (2001-2007)

During the negotiations of the 2001 RES-E directive, the Spanish role as pace-setter was hindered by the Commission’s enthusiasm for the harmonization of national support schemes in the form of tradable certificates under the idea that it fits better into the internal energy market. Together, Spain and Germany alleged for the member states’ freedom to choose their own support system for RES-E (Interview 3). Their positions were backed by the success of their respective FITs in wind energy promotion (Meyer, 2003; 668). From there on, both countries engaged in a cooperation process that facilitated the diffusion of FITs across the EU (i.e. horizontal Europeanization, see also Chapter 3 by Vogelpohl et al. on the German case). Facing the opposition of two of the largest RES-E producers in the EU, the Commission called off the idea of harmonizing support schemes

and favored coordination instead (Rowlands, 2005, p. 971). With no relevant misfit in terms of support schemes and having already adopted measures for further RES-E promotion, the 2001 RES-E directive meant no significant adaptational costs for Spain.

When the directive came into effect, most of the requirements included were already in place in the Spanish legislation. The first Spanish report on the implementation of this directive made reference to measures adopted back in 1997 and 1998. With no misfit having place, Europeanization came thanks to a change in the beliefs and expectations of domestic actors and to a favorable domestic opportunity structure that favored RES-E expansion. To start with, the 2001 directive further encouraged domestic support for RES-E. Governmental sources interviewed affirmed that the EU policy brought confidence and security to the Spanish market on the path being taken (Interview 4). The RES-E producers defined the change in terms that, during the first years following the implementation of this directive, it was politically incorrect not to support RES (Interview 1). Europeanization changed the beliefs and expectations of domestic actors concerning RES-E, creating ‘an atmosphere of enthusiasm’ for investment (Dinica and Bechberger, 2005, p. 267). In this context, a coalition of national actors emerged supporting the changes promoted by Brussels, with RES producers and the ENGOs being particularly active.

The change in the beliefs and expectations of domestic actors came together with a domestic opportunity structure – already Europeanized thanks to the liberalization of energy markets and the flow of EU economic resources to Spain – that favored RES-E expansion in Spain. Apart from the fact that RES-E production via the special regime linked to FITs kept a rising trajectory, the growing electricity demand that at the time existed in Spain – product of economic growthⁱⁱⁱ – facilitated the entrance of RES-E into the market (Interview 3). RES-E took care of the

deficit in electricity coverage in Spain without any source of opposition from traditional energy producers (Interview 5). The domestic opportunity structure was positive for RES-E expansion and, combined with the change in beliefs and expectations, derived in the fact that even big electricity utilities diversified their investment portfolio, participating also in RES-E development (Interview 6).

Progressively RES-E expansion began altering the Spanish electricity market and, as a consequence, the domestic opportunity structure as well. Driven by the grid manager concerns on 'the impact of a relatively high (and increasing) share of wind generation on grid stability' (del Río, 2008, p. 2924), several elements of the Spanish FITs were modified in 2004 by means of a royal decree^{iv}. As Jacobs explains, the '2004 amendment established the dual remuneration system, comprising the fixed tariff payment option and the market sales option' (Jacobs, 2012, p. 79). The official position argued that this change was oriented towards a better fit of RES-E into the electricity market (Interview 3). Conversely, RES-E producers considered it hasty to push producers under special regime to compete with the ones under the ordinary regime (APPA, 2004).

The 2004 amendment attempted to control the electricity production under the special regime, but the fact is that RES-E continued its rising trajectory. In 2006 over 19 percent of the electricity consumed in Spain came from RES. As RES-E expansion kept its pace, tensions within the Spanish electricity market started to emerge. In spite of the fact that by 2006 RES-E was still considered as a strategic sector of the Spanish economy, it is fair to say that by then the implementation of the EU directive started to raise contention. RES-E had been progressively displacing traditional sources of energy from the electricity mix and competitors started looking

at the advantages given to RES-E producers –product of the RES-E directive implementation– with suspicion. Consensus over RES-E was over and, paradoxically, it was as a result of the changes brought by the own EU legislation (i.e. top-down Europeanization). A new adjustment to the Spanish FITs was implemented in 2007 that, although it reaffirmed priority access to the grid for RES-E, it also opened the door for a periodical revision of the tariffs perceived by producers under the special regime.^v

8.3.3 The renewed directive and the RES-E policy collapse in Spain (2008-onwards)

For the Spanish interests, the negotiations of the renewable energy directive (RED) –that was meant to replace the 2001 RES-E directive– started with the wrong foot. Since 2007, the pro-traders lobby –supporting a European scheme based on tradable certificates– started putting pressure at the European level (Nilsson et al., 2009, p. 4457). As a result, in early January 2008 the circulating versions of the proposal were favorable to this position (Toke, 2008, p. 3003). Again Spain and Germany defended the FITs (EurActiv, 2008). In an attempt to accommodate the positions of both countries, a ‘Commission’s proposal introduced an opt-out clause that would allow member states to not participate in the proposed [...] scheme’ (Nilsson et al., 2009, p. 4458). In a letter sent to the former Energy Commissioner Pielbags, the Spanish and German governments argued that ‘[a] European trading regime, even if combined with a temporary phasing-in or opt-out clause, is not acceptable’ (EurActiv, 2008). Furthermore, the letter stated that the harmonization based on tradable certificates ‘will put a very successful development of renewables at risk’ (Taylor, 2008).

With two of the largest RES-E producers against harmonization of support systems, the ‘Commission decided to give way in the face of such protests’ (Toke, 2008, p. 3003). Once again, the final proposal excluded any sort of harmonization. Interestingly, in spite of having a domestic industry on the rise, the Spanish role during the negotiations was limited to protect its own environment and hamper the adoption a European scheme to support RES-E based on tradable certificates that would have meant significant adaptation costs (i.e. a bottom-up Europeanization foot-dragging strategy). This defensive position can only be explained by considering the tensions that the implementation of the RES-E directive had provoked within the Spanish electricity market –that just got aggravated with the economic crisis, forcing the Spanish government to change the position towards RES-E both at the national and the European level.

With the economic crisis in 2007-08, the electricity demand fell dramatically. As a result, RES-E got a major share of the national electricity consumption thanks to the preferential access to the grid required by EU legislation. Conversely, the participation of nuclear, carbon, fuel gas, and gas via combined-cycle plants significantly decreased (REE, 2009, p. 10). This shift in the consumption patterns was perceived as a threat by the Spanish main electricity utilities, which still have vested interests in traditional sources of energy (Dunham, 2014). In response, the main Spanish electricity utilities such as Endesa and Gas Natural started blaming RES-E –and the FITs– for the tariff deficit^{vi}, using this argument to justify exorbitant increases in the price of electricity in a context where the crisis was worst hitting to the Spaniards (Andreu, 2014).

Electricity utilities adopted a ‘veto’ position against RES-E that, given its traditional tight links with the Spanish government, was translated into substantial changes in the national legislation. Making use of the argument on the need to tackle the tariff deficit and on the

importance of giving stability to the electricity market, the national government gradually dismantled the Spanish renewable energy policy giving as a result stagnation on the RES-E sector. First, the government approved in 2010 retroactive cutbacks to functioning RES-E plants – especially affecting the wind, solar thermoelectric and photovoltaic-based projects.^{vii} Later in 2012, the government paralyzed the support to new RES-E plants, a measure that affected already functioning plants.^{viii} Amid the criticism from the RES sector, a reform of the electricity sector was approved in 2013 which critically affected the conditions for electricity production under the special regime. The general reading from both RES-E producers and ENGOs was that the government's reform changed the rules of the game in favor of the big utilities and the traditional sources of energy (Greenpeace, 2013).

With all the above-presented elements in mind, it is not a surprise that Spain did not push for ambitious RES goals during the negotiations of the 2030 EU climate and energy package in late 2014. Instead, together with Portugal, Spain pushed for 'a binding obligation for member states to make 15% of their national generation capacity available to other EU nations' (EurActiv, 2014), proposal that was oriented to sell the RES-E surplus to France. However, Spain and Portugal failed to become pace-setters in interconnection and the most they obtained was a commitment that 'the Commission will take "urgent measures" to ensure at least 10% electricity connection capacity in those countries currently below that' (VanRenssen, 2014).

The latest stab at the once successful Spanish FITs was the royal decree 413/2014. The new austerity-driven economic regime, which also affected already functioning plants, changed the conditions under which investments were originally made and transformed the design of FITs –when before it was linked to the amount of electricity produced, the new retribution system

depends on the installed plant's power capacity. Only this change in the rules of the game can explain the difficulties that the national RES-E industry faces in spite of the fact that in 2015 RES-E was the main contributor to the national electricity mix with a 36,9 percent of the share (REE, 2015). In fact, RES-E producers have argued that 'Spain is in danger of missing its 2020 renewable energy target because of its inadequate subsidy regime' (ENDS EUROPE, 2016). Against this background, compliance with the RED and specifically with the national target of 20 percent of RES for 2020 appears to be the only solution for RES-E producers to save the gains made. In fact, Spanish RES-E producers and ENGOs have been permanently denouncing the dismantling of the Spanish renewable energy policy to the European Court of Justice and the European Commission. To top it all up, in October 2015 Spain approved the Royal Decree 900/2015 – internationally known as 'tax to the sun' – that regulates administrative, technical and economic conditions of energy supply for self-consumption, which among other things, prohibits the association of consumers and charges for the support that the system provides to self-consumers/producers.

8.4 Biofuels in Spain: the darkness of a 'green' policy

8.4.1 Spain as pace-setter of the biofuels directive

Differently to the RES-E development, it is only possible to trace back national regulation for biofuels promotion in Spain until the late 1990s. In the framework of the liberalization of national energy markets, the law 34/1998 was adopted in order to change the regulation for the hydrocarbons sector. Interestingly, this instrument not only established a definition on biofuels,

but also set national targets for the domestic consumption towards 2010. The Spanish commitment with biofuels promotion was stressed again two years later with the royal decree 6/2000, which created a commission for the study of biofuels use. Its report proposed a set of measures to support biofuels, including tax exemptions (APPA, 2005a, p. 55). In response, Spain adopted in 2002 a total tax exemption for biofuels with a validity until the end of 2012.

Even without the same years of experience promoting biofuels as other European forerunners (see Chapter 3 by Vogelwohl et al. on Germany and Chapter 9 by Bocquillon and Evrard on France), Spain again appeared during the negotiations of the 2003 biofuels directive as a pace-setter (i.e. bottom-up Europeanization). To start with, Spain played a crucial role in maintaining the medium-term target of biofuels for 2010 included within the directive and which was opposed by some member states (Interview 2). But most important were the negotiation skills displayed during the Spanish presidency of the Council in the first semester of 2002. As part of the block of member states having past experience using partial or total exemptions from fuel taxes for biofuels promotion (Wiesenthal et al., 2009, p. 793), achieving the adoption of the biofuels taxation directive was part of the Spanish presidency's objectives (García-Verdugo, 2002, p. 9). Indeed, the political agreement over the energy taxation directive –including biofuels taxation– was reached in Madrid during the ECOFIN Council of June 2002 thanks to Spain's broker skills (ICE, 2002). However, this directive was enacted in 2003 at the same time than the biofuels directive. Wiesenthal et al. explained the Spain's adopted role considering the mix between 'high interest in consumption with a high potential for feedstock production' (Wiesenthal et al., 2009, p. 793).

Probably unintended, but Spanish experience in biofuels promotion was also a driver behind the diffusion of tax exemptions across Europe (i.e. horizontal Europeanization). Following the adoption of the biofuels directive –between 2004-06– tax exemptions were introduced in several member states as an instrument to comply with the targets set by the directive (see Chapter 3 by Vogelpohl et al. on Germany). Considering that member states ‘with a high penetration of biofuels have, or have had, a favourable tax regime in place, e.g. Germany (until the end of 2006), France, Sweden, and Spain’ (Wiesenthal et al., 2009, p. 794), the Spanish role in this process should not be underestimated.

Given Spain’s forerunner position in biofuels promotion and the Spanish influence during the negotiation phase, the EU biofuels directive produced a limited adaptational pressure at the domestic level (Solorio and Popartan, 2014, p. 133). An institutional inertia followed the first years of the directive’s implementation in Spain. To give an example, the first implementation report presented the tax exemption adopted back in 2002 as one of the main instruments for pursuing the biofuels target. Interestingly, differently to the biofuels definition included within the European legislation, the royal decree 1700/2003 transposing both biofuels directives only considered bioethanol and biodiesel for the purpose of biofuels promotion (APPA, 2005a, p. 58). No major changes were presented during the first years of implementation of this directive in Spain. It was not until 2006 that Spain regulated the use of biofuels by means of the royal decree 61/2006, which established the 5,75 percent objective for the commercialization of biofuels to be achieved by 2010 and established the blending limits (maximum 5 percent for bioethanol and specific label for cases where bioethanol composition were bigger to 5 percent of the mixture).

Strikingly, it was not until 2006 that Spain was notified by the European Commission that the existing tax exemption was compatible with the EU state aid rules (COM, 2006a, p. 7).

In 2000 there were no functioning biofuels plants in national territory, but by 2004 Spain was already a leader in bioethanol production with also positive results in biodiesel (Shnepf, 2006). While these figures illustrate the impact of the EU biofuels policy in Spain, it has to be said that by 2005 national biofuels consumption barely reached one percent of the total fuel consumption –failing to reach the 2 percent interim target contemplated in the directive (APPA, 2005a, p. 38). As a result, the main demand from biofuels producers began to be the need to have a national plan for biofuels consumption in order to achieve the 5,75 percent objective by 2010 (APPA, 2005b). This demand for a national plan promoting consumption by domestic biofuel producers came also from the pressure that for them involved the fact that until 2006 oil companies and car producers did not show interest in biofuels and, as a result, ‘most of the national production was exported’ (Di Lucia and Kronsell, 2010, p. 557). Additionally, since the implementation of the biofuels directive there has been a growing gap between domestic production and consumption, which was only aggravated by the fact that the pressure triggered by Europeanization opened the Spanish market for imported biofuels. Given that most of the third country producers were already being subsidized at home, Spanish biofuels producers started facing an unfair competition from outside the EU.

As a result, after years of institutional inertia and the lack of visible reactions from national actors that characterize the first years of implementation of the biofuels directive, this policy became more politicized and contested. On the one hand, the rising of the national biofuels industry, together with the perspectives of a reinforced regulatory EU framework, forced

oil companies and car producers to get involved in this policy. At the same time, ENGOs started raising concerns about the sustainability of first-generation biofuels. On the other, the national biofuels industry, making use of the need to comply with EU targets, stated pressing for a reinforced national policy for biofuels promotion. Europeanization gave rise to contention – especially from ENGOs but also from oil producers– while at the same time improving the domestic opportunity structure for the emergence of a national biofuels industry that some years before was difficult to imagine.

8.4.2 Policy change and policy resistance in biofuels policy (2007-onwards)

In 2006, the European Commission launched the EU Strategy for Biofuels, proposing the use of biofuel obligations and encouraging ‘Member States to give favourable treatment to second-generation biofuels in biofuels obligations’ (COM, 2006b, p. 7). Given the European Commission’s push, considering the need to boost national biofuel consumption and having in mind the opposition of the oil operators, Spanish biofuel producers urged the national government to approve a quota for biofuels of no less than 5,83 percent by 2010 (APPA, 2007). In spite of the fact that the Industry Ministry presented the project of law in July 2007, it took until October 2008 for it to be enacted. After more than one year of complaints from the biofuels industry, Spain adopted a quota for biofuels which significantly changed the rules of the game for biofuels promotion.

In general terms, the order ITC/2877/2008 brought the Spanish biofuels policy closer to the European guidelines. Not only it meant the establishment of a biofuels quota as proposed by the European Commission two years earlier, but it also broadened the definition of biofuels

exactly in line with the EU directive (including, for example, biogas and biomethanol). The mandatory targets were in line to the biofuels industry demand: 1.9 percent by 2008, 3.4 percent by 2009 and 5.83 percent by 2010. Importantly the target referred to market quota, establishing the energetic content for each type of biofuel. While the national biofuels industry declared to be ready to contribute to reach such targets, they also warned against the fact that unfair competition from abroad the EU might jeopardize the benefits of the obligation (Renewable Energy Magazine, 2008). In fact, the first report on the implementation of the biofuels quota showed uneven results for the national industry (CNE, 2011). In 2009 the national production of biodiesel covered 69.12 percent of the domestic consumption –against 12.48 percent that came from Argentina– and the domestic production of bioethanol supplied 67.24 percent of the domestic consumption –against 18.24 percent produced in Brazil and 6.55 percent from France. To put these figures in perspective, in 2009 the annual sales of biodiesel were 79.63 percent of the total commercialized biofuel (1.169.626 m³), against 20.37 percent represented by bioethanol sales (299.158 m³). However, in terms of raw material the figures were not that positive for national producers.

With a growing biofuels market, the Spanish ENGOs became more actively involved in campaigns against first-generation biofuels. The interviews with ENGO's members confirmed their opposition to this policy. For example, a Friends of the Earth Spain campaigner argued that biomass is not the only renewable source of energy that can be used in the transport sector (Interview 7), while a Greenpeace representative of biofuels campaign raised the issue of the traceability of feedstocks (Interview 8). The more the national biofuels policy got Europeanized, the more resistance it found in environmental groups; too much for a policy that was meant to

alleviate climate change and procure environmental protection. In this sense, the 2009 renewed directive^{ix} brought to Spain sustainability elements that precisely attempted to tackle the concerns raised by the ENGOs. In 2011, two years after the adoption of the RED, Spain adopted the royal decree 1597/2011 that regulated sustainability criteria of biofuels and the double counting for certain biofuels. Nevertheless, Spanish ENGOs have kept campaigning against biofuels and have warned that Spain might emit up to 9 million tonnes of carbon dioxide (CO₂) if meeting the 2020 objectives for RES in the transport sector considering the indirect land use change (ILUC) (Bowyer, 2011). As a matter of fact, Spanish ENGOs pronounced against the specific target for RES in the transport sector since the negotiations of the RED, under the consideration that Spain was not in conditions to meet this target in a sustainable way (Greenpeace, 2008). Their estimation is that Spain will increase biofuel consumption from 2008 to 2020 on 2635 kilotonnes of oil equivalent (ktoe) –255 ktoe in bioethanol usage and 2380 ktoe in biodiesel– (Bowyer, 2011: 11).

Despite this resistance, ENGOs have not been the main obstacle that the national biofuels industry has faced, but complexities related to the fuels market also became important. In 2010 a dramatic increase of the biofuels imports was reported in Spain, with only 54,56 of the national consumption produced domestically. In response, the biofuels domestic industry began pressing for measures to protect national biofuels from the non-EU unfair competition. In 2012 the order IET/822/2012 was adopted governing the allocation of biodiesel production, a measure understood as way to establish limits to imports. Nevertheless, in order to avoid a penalty from the World Trade Organization (WTO), Spain modified this norm with the ministerial order OM/IET/2736/2012 eliminating the prohibition for the non-EU biodiesel.

Another demand from the national biofuels industry was the transposition of the fuel quality directive (FQD), which should represent a substantial change in the blend limits for biofuels (for biodiesel incrementing the maximum limit until 7 percent of the mixture and 10 percent for bioethanol (APPA, 2010). This option faced strong resistance from the automobile sector under technical considerations; at the same time, the oil industry blamed the car fleet in Spain as the main obstacle to increase national biofuels demand (EuropaPress, 2010). At the end, however, the transposition of the FQD in Spain meant the increasing of blending limits as demanded by the domestic biofuels industry.^x

Coupled with the debates about the future of the EU biofuels policy (see Chapter 2 by Solorio and Bocquillon), the Spanish biofuels policy has also faced a dismantling process, although not as deep as in the case of RES-E. With the crisis on its back, the Spanish government reduced the biofuels targets for 2013 from 6.5 percent to 4.1. For the Spanish biofuels industry, this was equal to the death of the sector considering the non-EU unfair competition domestic producers had been dealing with for years (ELPAIS, 2012). Additionally, given that the total tax exemption for biofuels was only valid until the end of 2012, the taxation system was reformed maintaining a special treatment for biofuels but eliminating the total tax exemption.^{xi} Last but not least, in 2015 the Spanish government reformed noticeably the national biofuels policy by means of the royal decree 1085/2015: changing again the mid-term targets (5 percent for 2017, 6 percent for 2018, 7 percent for 2019 and 8.5 percent for 2020), excluding the differentiated targets for biodiesel and bioethanol that had been implemented since 2008 and modifying the implementation of the sustainability criteria in order to favor first-generation biofuels.

Noticeably the enthusiasm from the Spanish government with biofuels has been importantly motivated by the need to give a push to the agricultural sector and boost new industries. In that sense, Spain has used the EU biofuels policy in order to protect the national interest, becoming for moments a pace-setter at the European level. However, as the EU policy shifted toward a more sustainable path for biofuels promotion, Spain appeared as an environmental laggard. For example, in December 2013 during the negotiations of the EU biofuels policy reform, Spain promoted the least restrictive cap on the amount of first-generation biofuels – together with Poland, Hungary, Slovakia, Romania and the Czech Republic– pushing for a limit of 8 percent or even to remove any limits on land-based biofuels (Greenpeace, 2013b). Likewise, in 2015 Spain was formally asked to ensure the correct implementation of the RED. The Commission drew the attention on the fact that, contrary to what is foreseen by the directive, ‘Spanish law suspends the application of sustainability criteria in Spain for the achievement of the target in transport (COM, 2015b).^{xii} In fact, the EurObserver 2015 report on biofuels consumption in the EU, in spite of placing Spain as the fifth European consumer (only below France, Germany, the United Kingdom and Italy), posits Spain’s failure to implement the legal framework to certify its biofuel consumption as its main challenge to meet the RED objectives for 2020 (EurObserver, 2015, p. 7).

8.5 Comparative analysis and concluding remarks

The Spanish case is illustrative of how Europeanization can actually produce changes at the domestic level without the existence of the misfit factor. In the case of RES-E, the change in the beliefs and expectations of domestic actors produced by Europeanization is fundamental for

understanding the emergence of Spain as a European champion in RES-E production. In this context, the role of the alteration of the domestic opportunity produced by Europeanization seems at first glance comparatively minor. However, to understand the size of the impact of this second Europeanization mechanism one should consider that it was Europeanized even before the arrival of the RES-E directive thanks to related EU policies such as the liberalization of the energy markets and the regional policy. Together, the change in the beliefs and expectations of domestic actors and the altered domestic opportunity structures explain the early impact of Europeanization in favor of RES-E production in Spain between 2001 and 2007 approximately. On the other hand, the biofuels case shows a major role of the alteration of domestic opportunity structures as a Europeanization mechanism in the emergence of the national biofuels industry. In fact, the need to comply with the EU targets in this sector has been constantly used by the national industry as a bargaining leverage to obtain favorable regulatory changes. However, it has to be said that, given the nature of the fuels market, the misfit has been more present in this last case (for example with the changes produced by the FQD in the blending limits for fuels).

In spite of their different starting points, RES-E and biofuels have arrived to the same stagnation point in Spain, mainly due to the opposition to full implementation of EU regulations by domestic lobby groups, limiting the results of the top-down Europeanization process. While in both cases Europeanization has given rise to contention (i.e. Europeanization upside down), the main difference is that for the RES-E case the veto power that emerged (i.e. electricity utilities) has been powerful enough as for pushing the national government to limit the transformation of the Spanish electricity market by means of dismantling the national FIT

scheme. This change in the position of the national government towards RES-E has been contested by RES-E producers and ENGOs who have kept pressing for more supranational governance in order to boost a renewable-based energy transition in Spain. On the contrary, the opposition to the EU biofuels policy has been more dispersed (including opposite actors such as ENGOs, oil producers and the automobile industry) and, consequently, less effective to take down the national policy of biofuels promotion. However, the economic crisis together with the failure in the design of the EU biofuels policy has pushed as well this sector to a stagnation point.

Overall, the use of the concept of circular Europeanization has allowed us to reach important theoretical and empirical conclusions. In this way, looking at the effects of top-down Europeanization (stemming from policy change to resistance) has been fundamental for understanding the changing national attitude towards the EU renewable energy policy during the subsequent European negotiations. This calls not only for paying attention to the entire – Europeanization– policy cycle in order to understand the dynamics of policy change and resistance, but also to take a closer look at the role of domestic actors as intervening variables – both for the national adaptation to EU pressures and for shaping national positions during the negotiations at the EU level. On the empirical part, this comparative exercise has demonstrated that, despite the fact that both policies –RES-E and biofuels– are part of the EU renewable energy policy, their reception as environmental policies have been received radically different. This has meant that, while for RES-E promotion the coalition between producers and ENGOs has been central to contest the dismantling of the national FIT scheme, ENGOs have been one of the main opponents to the deployment of first-generation biofuels in Spain. Notably, this

apparently contradictory reaction from national actors points to the own problems of the EU renewable energy policy design.

Notes

¹ The Special Regime was adopted through the Law 40/1994 on the planning of the national electrical system (commonly known as LOSEN Law) and further explained by means of the Royal Decree 2366/1994.

¹ Law 54/1997 on the electricity sector.

¹ The continuous increase in energy consumption linked to economic activity and growth is in itself an indication of the failure to decouple energy consumption from economic activity, with very limited progress on energy intensity.

¹ Royal decree 436/2004.

¹ Royal decree 661/2007 regulating the production activity under the special regime.

¹ The tariff deficit is the imbalance between regulated costs and revenues of the electricity system. It began accumulating in 2001, reaching Eur 26 billion in 2012 and a record Eur 29 billion in 2013.

¹ These measures included: royal decree 1565/2010 regulating and modifying certain aspects related to the production of RES-E based on the special regime, royal decree 1614/2010 establishing cutbacks to wind and solar thermoelectric energy and law 14/2010 establishing urgent measures to correct the tariff deficit, applying retroactive cutbacks to functioning photovoltaic plants.

¹ See royal decree/ law 1/2012 which suspended the retribution to new RES-E plants under the special regime.

¹ The 10 percent of RES in the transport sector was incorporated in the national legislation by means of the law 2/2012 2020 for a Sustainable Economy.

¹ The transposition of the FQD was made in September 2010 by means of the royal decree 1088/2010.

¹ See law 15/2012 on fiscal measures for energy sustainability.

¹ The Commission also referred to the fact that the Spanish law treats sustainable biofuels and raw materials of different geographical origins differently in an unjustified manner.

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Interview 7, with a Friends of the Earth Spain campaigner, July 2010, Madrid.

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9. Complying with, resisting or using Europe? Explaining the uneven and diffuse Europeanization of French renewable electricity and biofuels policies

Pierre Bocquillon and Aurélien Evrard

9.1 Introduction

Despite a considerable potential and the establishment of a Feed-In Tariffs (FITs) system in 2000, France has failed to stimulate the large-scale deployment of renewable energy sources for electricity (RES-E). It has tended to follow rather than trigger European developments and its implementation record appears rather mixed. The promotion of biofuels has been more successful, especially following the adoption of a biofuels obligation in 2005, but was largely motivated by domestic concerns over agriculture rather than European commitments. Overall, the role of European factors in the development of French renewable energy policy looks blurry, to say the least. At the European level, the ambiguous attitude of France on RES-E, which has alternated between foot-dragging and occasional leadership, mirrors internal divisions and hesitations. On biofuels, the country has acted more consistently as a pusher however.

In the academic literature, there is a shortage of in-depth research analysing French renewable energy policy, especially in comparison with other more advanced member states such as Denmark, Germany or Spain (but see Evrard, 2013; Szarka, 2007). Studies looking at the growing impact of European processes on French renewable energy policy are especially lacking. To fill this gap, this chapter applies the conceptualization of Europeanization presented in chapter one to the French case, with the aim of disentangling the role of European and national factors in the development of new measures such as the FIT system and biofuels obligation. The

chapter also strives to specify the country's role in shaping European Union (EU) renewable energy policy. Finally, this research aims to explain both the differential impact of European dynamics, as well as uneven influence of France in the fields of biofuels promotion and RES-E at the EU level.

The next section briefly presents the framework of the chapter, which, building on the mechanisms of Europeanization identified in the initial contribution, introduces an actor-centered sociological approach to the practices and 'usages of Europe'. Sections 9.3 and 9.4 present in turn the two sub-case studies on RES-E and biofuels promotion. Applying – and reflecting upon – our theoretical framework, the last section compares the two cases and draws some general conclusions.

9.2 Analytical underpinning and methods: an actor-centered sociological approach to Europeanization

Three particular models of Europeanization are the focus of this book: the 'top-down', the 'bottom-up' and the 'horizontal' models. The first one emphasizes adaptational pressures generated by the EU; the second one focuses on member states' ability to shape European policies; and the last one stresses diffusion processes, policy transfer and mutual adjustments between member states (see Chapter 1 by Jörgens and Solorio). These three routes to Europeanization should be regarded as complementary. Participation in European processes – through negotiations or through the implementation of European laws – can for instance stimulate exchanges of ideas between national actors, foster international comparisons and imports of best practices across borders, thus contributing to horizontal Europeanization. Reciprocally, convergence between member states facilitates agreement at the European level

and reinforces adaptational pressures.

The Europeanization literature, both in its vertical and horizontal versions, tends to over-emphasize structural aspects – economic structures, institutions, ideas – at the risk of losing sight of the actors' role. In the top-down model of Europeanization, domestic actors often come into play as mere 'mediating factors' or 'intermediary variables', and often with little distinction between different types of actors. Similarly, the transfer and diffusion literature emphasizes institutional isomorphisms (see Chapter 1 by Jørgens and Solorio), but tends to overlook the role of actors' strategies and responses. Conversely, we assume that focusing on actors' behaviors and strategies, be they individual or collective, helps the analysis not only of the direct impact of the EU but also of processes of adaptation, mutual adjustment and avoidance. Domestic actors implement, resist and sometimes subvert European constraints. They are not only passive receivers of European norms; they can also use them as resources for their own purposes.

Especially useful in this perspective is an approach in terms of 'usages of Europe' (Woll and Jacquot, 2010). This actor-centered approach to Europeanization helps shifting the emphasis towards mechanisms of appropriation of European processes. Actors can use Europe in varied way, sometimes contradictory, depending on their preferences, values and strategies. Woll and Jacquot distinguish between three different usages. The 'strategic usage' refers to the direct use of EU legal, institutional and budgetary resources to achieve certain purposely defined goals. The 'legitimizing usage' of Europe corresponds to the use of European arguments and narratives to justify certain positions and measures. Finally, the 'cognitive usage' represents the use of European referents to frame and debate certain issues at the national level. While the 'legitimizing usage' is essentially instrumental and motivated by individual gains, the 'cognitive usage' is more oriented towards problem solving and deliberation. Focusing on actors and their

usages is especially useful to complement the ‘three routes’ approach since it can help us specify the interplay between top-down, bottom-up and horizontal dynamics.

The empirical part of this chapter is based on two complementary research projects. The first one, conducted between 2005 and 2010, looks at French renewable energy policy in comparative perspective (Evrard, 2013). The second one, started in 2010, focuses on European energy and climate change policy-making and the role of France therein. By bringing together these two research projects, we aim to shed light on the interplay between the national and European levels, over an extended period of time of nearly ten years. Both studies rely on qualitative research designs, comparative case studies and process tracing. In the framework of these two projects, as well as more specifically for this chapter, semi structured interviews have been conducted with civil servants, business representatives and non-governmental organization (NGO) executives in both France and Brussels. These interviews, complementing document analysis, enabled us to better grasp the perceptions, motivations and influence of the different actors involved in the French renewable energy sector.

9.3 Promoting renewables in a nuclearized energy system: the Europeanization of RES-E policy

The French attitude towards RES-E promotion represents a paradox. The country enjoys very favorable geographical conditions and its potential is one of the best in Europe for the production of wind and solar power (Reiche and Bechberger, 2004). However, as regards the deployment of RES-E compared with other EU member states, France has often been considered a ‘laggard’. This reflects its difficulty in implementing strong support policies and in catching up with European pioneers. In 2015, 76 percent of the country’s total energy production came from

nuclear energy (RTE 2016, p. 13); only 19 percent came from renewable energy sources (RES) – mainly from large hydropower (11 percent) and wind power (4 percent). Moreover, the share of RES-E has remained stable overall for the past 25 years. This situation contrasts with the rapid development of RES-E generation in other countries such as Denmark, Germany or Spain in the same period.

The main explanation for this apparent paradox lies in the historical and structural specificities of the French electricity sector. It has been dominated by Electricité de France (EdF), a public monopoly created through a 1946 nationalization law – even following the progressive liberalization of the sector in the 2000s. The centralization of both production and decision-making processes in the post-war period fitted into a ‘Colbertist tradition’ favoring state stimulated industrial policies based on large centralized programs (Finon, 1996). Often described as ‘a state within the state’, EdF was at the center of a closed policy network also including the administration – notably the Ministry of Industry and its General Directorate for energy and raw materials (Direction Générale de l’Energie et des Matières Premières [DGEMP]). It was dominated by technocratic elites – particularly the engineers from Corps des Mines. Influenced by the preferences of these elites as well as by the legacy of Charles De Gaulle, which was marked by the promotion of national independence and development of nuclear technologies for military purpose, electricity policy was firmly oriented towards centralized production and nuclear power in the wake of the first oil shock of 1973 (Hecht, 2009). In this context only large hydropower, which had developed long before nuclear energy, could find a place in the national electricity mix. The promotion of other RES such as solar or wind power, which was associated to the anti-nuclear movement, faced strong resistance from the electricity sector’s dominant actors (Evrard, 2013). The development of policies to promote RES-E at the European level, as

well as in other European countries, played an important role in altering – but not overthrowing – the national status quo.

9.3.1 Early developments: horizontal Europeanization by default

Up to the 1990s, despite pioneering research and development (R&D) projects (on solar energy in particular) the French renewable energy sector was not getting strong political and financial support. As a result, European programs – such as the JOULE, THERMIE and ALTENER schemes – played a significant role in financing and fostering research (see Chapter 2 by Solorio and Bocquillon). They offered experts and scholars opportunities to carry out their research, helped researchers take part in European networks and stimulated exchanges of best practices and benchmarking. Through their participation to international meetings, the wind sector's small and dispersed actors became aware of the existence of strong associations in Denmark and decided to create one on the same model, France Energie Eolienne (FEE) (Interview 1). This represents a clear instance of horizontal Europeanization, driven by learning processes in research and organizational practices. Renewable energy actors made both an instrumental and cognitive usage of 'Europe' that helped them build up their position.

From the 1990s onwards, the influence of the EU over the French electricity sector became stronger, notably in the context of the liberalization of European electricity markets (Eising and Jabko, 2001). It is also during this period that the idea emerged that France was lagging behind its European partners in terms of RES promotion. This is notably visible in public documents, as illustrated by the Brosse report:

Large industrialized countries have made considerable efforts to develop

renewable energies in the last two or three years. France is falling behind. Our country should not stay away from this general movement. The EEC itself intends to develop an active policy in this matter. One does not see how France could stay isolated in Europe and why it would do so (Brosse, 1992, p. 44).

In this period, the dominant political and economic actors of the electricity sector were influenced by the pressure to ‘catch up’ with other countries, as well as by the growing importance of environmental issues. EDF proceeded to a timid shift in its discourse and behavior. The utility adopted a strategy of opening up to public opinion, announced that it would not oppose decentralized energy technologies anymore and even started developing an interest in RES-E (Interview 2). In 1996 it entered into a partnership agreement with ADEME – the French Agency for the Environment and Energy Management – and the Ministry of Industry to launch the ‘Eole 2005’ tender scheme, which aimed for the installation of between 250 megawatts (MW) and 500MW of new wind power capacities within ten years. This evolution can be interpreted as characteristic of a process of horizontal Europeanization, driven mainly by economic competition with EU partners and adaptation to global and European environmental norms.

However, the implementation of the Eole programs faced important difficulties and the results remained very limited in terms of wind power deployment (Nadai, 2007; Szarka, 2007b). Besides, the role of European factors in this evolution should not be overestimated. Several domestic factors also contributed to the renewed interest in RES-E promotion, for instance the professionalization of the ‘renewable lobby’ or the participation of the Greens in the ‘Plural Left

Coalition' from 1997 onwards (Evrard, 2013).

9.3.2 Catching up with 'Europe': interactions between the 2000 Electricity Bill and the 2001 RES-E directive

In 2000 France adopted a new Electricity bill, also known as the law on the modernization and development of the public service in electricity, which introduced for the first time a FIT system for RES-E (article 10). The policy-making process leading to the adoption of this law, which represented a turning point for French RES-E policy, highlights the interaction between EU and domestic policies.

The first factor of change was related to the process of liberalization of electricity markets engaged at the European level. Four years after its adoption in 1996, directive 96/92/EC on common rules for the internal market in electricity was finally transposed into French national law through the 2000 Electricity bill. The attendant debates opened a window of opportunity for renewable energy proponents to upgrade support to RES-E. In the 1990s, renewable energy actors had gotten organized and had reinforced their policy influence, notably through the creation of the Syndicat des Energies Renouvelables (SER). An advocacy coalition emerged including renewable energy associations (such as the SER and FEE), environmental NGOs and the Green Party (Les Verts). This coalition benefited from an especially favorable political context, since Les Verts had gotten into power as part of a left-wing coalition with the Socialist party. In addition, the debates on a RES-E directive that were taking place at the same time in Brussels also contributed to create a favorable context for RES promotion. As a result, the coalition managed to include RES promotion on the agenda of energy sector reforms.

Processes of horizontal Europeanization were decisive in shaping the content of the

French electricity bill. In anticipation of the energy debate, Socialist Prime Minister Lionel Jospin had commissioned a survey of the RES situation in France and Europe, to give a new impulse to this sector. In 2000 Yves Cochet, a prominent Green Member of Parliament and vice-president of the National Assembly, presented an influential report that advocated the establishment of a FITs system modeled on the pioneering German scheme (Cochet, 2000). The subsequent adoption of the FIT scheme reflects a combination of policy learning and economic competition, notably with Germany (Szarka, 2007b, pp. 323-324; see also Chapter 3 by Volgelpohl et al.).

The negotiations on the RES-E directive, concluded in 2001, provided France with an opportunity to upload its preferences to the European level.¹ Yet, during the negotiations France acted as fence-sitter, engaging in changing coalitions only to limit the costs of implementation. Concerning the definition of RES, France sided with the group of countries that pushed successfully for the inclusion of large hydropower. This was a matter of national interest given the structure of its energy mix. As regards objectives, the government accepted a quite ambitious indicative target of 21 percent electricity produced from RES in national consumption by 2010 – to be compared to the 15 percent share already reached in 1997. Because of both the timing of the 2000 French Presidency and participation of the Green Party to the government, it was impossible for French negotiators to overtly oppose the target proposed by the Commission. Yet experts in the administration perceived it as ‘senseless’ and impossible to reach (Interview 4). Finally, France was not strongly involved in the debate on policy instrument harmonization. Since it was in the process of adopting a FITs system at home, it nonetheless supported the FITs coalition (Rowlands, 2005, p. 972).

The implementation of the RES-E directive is interesting for its ‘usage’ by domestic

actors. Even though national targets were not mandatory, RES-E proponents made a ‘discursive use’ of the directive, arguing for the necessity to adopt new measures to reach national objectives. According to one of them, ‘European acts are mostly useful to show that we won’t be able to reach the targets we set up’ (Interview 3). The large amount of press articles published in the following years that insist on France’s backwardness, suggests that these entrepreneurs were successful in instilling this idea in public opinion. However, neither the FIT nor the European commitments were sufficient to trigger a reorganization of the sector and a RES-E ‘rush’. Progress was notably hampered by low FITs, complex planning procedures and lack of grid connections (Szarka, 2007b, pp. 326-327). Still, there are signs that the European context had an influence. The 2005 energy law introduced spatial planning for wind power on the Danish and German models, while the wind FIT was stepped up in 2006. As for the decision of Prime Minister de Villepin to double the solar photovoltaic (PV) FIT in 2006, it was justified as much by the need to strengthen public support to an emerging industry as by European commitments (Debourdeau, 2011).

9.3.3 The 2009 directive: occasional climate leader but implementation laggard

When RES promotion was put back on the European agenda by the Commission in January 2007 (see Chapter 2 by Solorio and Bocquillon), the French government adopted a rather cautious approach reflecting the limited progress made at home in recent years. France was indeed clearly lagging behind its 21 percent indicative RES-E target.² At the February Energy Council, the French government acted as a foot-dragger. It supported an objective of 20 percent RES in EU final energy consumption by 2020, but opposed binding targets. Such position reflected the stance of major actors such as EDF and AREVA, who defended the French nuclear industry

(Interview 11). However, French reticence was won over during the March European Council when German Chancellor Angela Merkel, who was presiding the debates, managed to convince its most reluctant counterparts including President Chirac to agree on a binding RES target, in a context of intense pressure for climate action (see Chapter 3 by Vogelpohl et al.).

The position of France evolved from foot-dragging to circumstantial leadership following the election of President Sarkozy in May 2007. Under pressure from former TV presenter and green activist Nicolas Hulot during his campaign, Nicolas Sarkozy had signed an ‘ecological pact’ and committed to set in motion an innovative national consultation process on environmental issues, the ‘Grenelle de l’environnement’ (Whiteside et al., 2010). As France was to hold the EU Council Presidency in the second half of 2008, the climate and energy package became the symbol of its domestic environmental commitments at the European level. It was also seen as a means for international prestige and influence in the context of ongoing international negotiations on a post-Kyoto agreement. The French government made clear early on that the adoption of the package would be one of its top priorities. This strategy shaped its position on the draft renewable energy directive (RED). France accepted without major opposition the mandatory objective of 23 percent RES in national energy consumption by 2020, a target considered ambitious in view of the slow progress achieved in recent years.³

In the debate over policy instruments, the French position was also ambivalent. Unlike Germany or Spain, and despite a clear preference for FITs, France did not display strong opposition to the Tradable Green Certificates (TGCs) scheme originally proposed by the Commission. The reasons are twofold. First, as the incumbent European Council President, the French government wanted to keep a low profile, so as not to antagonize other member states, appearing as an ‘honest broker’, and reaching an agreement by the end of its term (Interview 10).

Second, France did not have strong vested interests as it had not massively invested in the industrial development of RES-E technologies. Yet the government wanted to keep control over renewable energy policy instruments, mainly as a matter of national sovereignty.⁴ Therefore, it welcomed the compromise solution put forward by Germany, the UK and Poland in June 2008, which proposed flexibility mechanisms – statistical transfers, joint projects and joint support schemes – as an alternative to a fully-fledged TGCs market (see Chapter 3 by Vogelpohl et al; Chapter 6 by Solorio and Fairbrass; and Chapter 10 by Jankowska and Ancygier). Overall, the position of France on the RED oscillated between circumstantial leadership on the climate package's policy objectives and fence-sitting as regard specific measures.

If the climate and energy package negotiations were largely considered a French success, implementation has proven difficult and controversial. During the consultation process conducted in 2008-09 as part of the Grenelle de l'environnement, most actors accepted European commitments. Again, one of the main arguments used to justify RES-E promotion was the need to 'catch up', that is: develop new policies to meet demanding European targets (top-down Europeanization); and compete with more advanced European partners such as Denmark, Germany or Spain (horizontal Europeanization). The first law to emerge from this consultation, the 'Grenelle 1' law (2009), was consensual and confirmed the 23 percent target. By contrast the follow up 'Grenelle 2' law, adopted in July 2010 and which contained more detailed measures, was fiercely debated. It required the Superior Council for Energy to monitor progress towards the European target. It also established sector specific measures. In the wind sector, for instance, it set the objective of 500 new wind turbines per year to bring up total capacities to 19 gigawatts (GW) in 2020. However, the accompanying regulatory measures were denounced by the SER, RES-E industries and environmental associations as the 'death of wind energy' for setting

additional administrative constraints for new projects (Evrard, 2012).

From 2009 support for RES-E aroused criticisms and resistance, in a context of economic turmoil and uncertainty over the future of the international climate change regime. In 2010, the high level of the solar PV FIT was made responsible for a 'speculative bubble' and rising electricity prices, and criticized for favouring technology imports over national industry support. Following a moratorium, the PV FIT was substantially decreased and its gradual reduction made steeper (Debourdeau, 2011). The wind sector was also the object of a polemic. In 2008, the association Vent de colère ('wind of anger'), a federation of more than 200 small associations opposed to the development of wind turbines, brought the French state before the Conseil d'Etat, the highest administrative jurisdiction, for having failed to notify the Commission of the wind FIT as required in EU state aid rules. In March 2012, the Conseil d'Etat sought a legal opinion from the Court of Justice of the EU, which ruled in December 2013 that the wind FIT was a state aid. In the meantime, France notified the Commission regarding the FIT, which judged in March 2014 that it was compatible with EU state aid rules (Collet, 2014). This case created strong uncertainty in the sector and slowed down the development of several projects (Bezât, 2013). This episode illustrates the ambivalent effects of European rules, which can either stimulate or slow down RES progression depending on the way they are used by domestic actors.

In this context, the share of RES in final energy consumption has grown slowly in recent years, reaching 13.4 percent in 2012 and 14.3 in 2014. In its review of progress towards EU energy and climate targets, the European Environmental Agency noted that France, along with five other member states, was below its indicative 2011 interim RES target (EEA, 2013, p. 11). That same year RES-E represented 16.5 percent of France's gross final consumption, slightly over the indicative interim objective of 16 percent indicated in the National Action Plan (NAP).

A study coordinated by Ecofys for the European Commission noted fair progress in policy developments, notably an adequate revision of the FITs, which have been made more progressive; and the start of open tenders for large wind farms and solar plants. However, the report also deplored the lack of clear and transparent administrative procedures to guarantee RES-E access to the grid (Ecofys, 2012, p. 112). Efforts will need to be stepped up to reach the ambitious objective of 23 percent RES-E in 2020 included in the NAP. In fact, it already appears clear in the French administration that it will be difficult for the country to meet its 2020 RES-E target (Interview 10).

As a result, in the debate on new energy and climate targets for 2030, the French government adopted an even more reserved position than during the 2007-08 negotiations. It strongly supported the Commission proposal for a binding target of 40 percent greenhouse gases (GHG) emission reduction by 2030, which was seen as favorable to its nuclear industry and represented a strong symbol in the perspective of the high profile Paris Climate conference of December 2015. On the other hand, French authorities favoured the 27 percent RES target proposed by the Commission in January 2014 over the more ambitious 30 percent target backed by the European Parliament. The European Council eventually adopted the former in October 2014. More discreetly, France was also part of the group of countries arguing against further binding national targets (Lindgaard, 2014). Yet, at the national level, the ‘law on the energy transition’ adopted by the Parliament in July 2015 contains an objective of 32 percent RES in energy consumption by 2030 (and 40 percent of electricity production). The law also introduces a system of Feed-in Premium for large facilities from January 2016, in parallel to the existing FIT system. This instrument, which was considered as more in line with the Commission’s guidelines on state aid rules of April 2014, was also inspired by the German and British models

(Fabrégat, 2015; Eurobserv'ER 2015a, pp. 6-7). These recent developments therefore confirm the interplay between vertical and horizontal dynamics of Europeanization in the case of French renewable electricity.

9.4 Greening support to agriculture? The Europeanization of French biofuels policy

In contrast to the RES-E sector, France is a forerunner in biofuels promotion. It has established itself as EU's top biofuels consumer (Eurobserv'ER, 2015b, p. 54), and is also the first country in Europe in terms of land surfaces used for biofuels production (6 percent). It has developed a small production of ethanol, mainly from sugarbeet and cereals, and is the first European producer and consumer of biodiesel, mostly from rapeseed. This reflects a longstanding promotion of diesel-based transportation.

The weight of its agriculture sector largely explains France's positive attitude towards EU biofuels policy. The French farming lobby, represented by its powerful federation, the Fédération Nationale des Syndicats d'Exploitants Agricole (FNSEA), and by specialized associations such as the General Confederation of Beetroot Producers (CGB), is very influential and has strong connections to the state, notably through the Ministry of Agriculture, which have proven decisive in shaping the country's position towards the Common Agriculture Policy (CAP). The promotion of biofuels at the European level has been perceived as a 'golden opportunity' to maintain indirect subsidies to intensive agriculture and to soften the impact of CAP reforms (Szarka, 2006, p. 634).

9.4.1 Early developments: a new market for agriculture

From the 1990s onwards, the CAP has progressively shifted from a productivist and protectionist orientation towards the promotion of more economically sustainable farming practices. The 1992 CAP reform obliged farms to set aside part of their land to control for the overproduction of cereals. In France the state tried to compensate this loss in revenues for farmers by granting tax exemptions for the production of non-food production on set aside lands (Cour des Comptes, 2012, pp. 47-49). Since 1992 biofuels have benefited from rebates from the national tax on petroleum products (Taxe Intérieure sur les Produits Pétroliers, TIPP⁵), which aimed to offset the ‘additional cost’ of biofuels compared to traditional fuels.⁶ Thanks to this voluntaristic fiscal policy France emerged as a European pioneer. The French government thus creatively responded to CAP reforms, using change in EU regulations on agriculture strategically to favor the development of biofuels.

France consistently acted as a pusher on biofuels, trying to upload its preferences at the European level. It was one of the main supporters of a 1992 Commission proposal setting a framework for reduced rates of excise duty for motor fuels from agricultural origins. In this period, the French biofuels support policy had come under scrutiny from the Commission and European Court of Justice for its discriminatory nature toward non-national producers. Consequently, France was keen on having a European framework in place that would ensure legal certainty for biofuels promotion and favor the emergence of a European market for its production. However, the proposal faced strong opposition and was finally withdrawn by the Commission in 1998.⁷

9.4.2 The 2003 biofuels directive: incentive or convenient justification?

Despite this initial setback, France carried on pushing for strong EU support. In 2001 the

Commission proposed a directive on the promotion of biofuels as part of its 'European Climate Change Program' (see Chapter 2 by Solorio and Bocquillon). It originally intended to propose mandatory targets for the share of biofuels in transport, rising from 2 percent in 2005 to 5.75 percent in 2010. France, which had already developed a small domestic production, supported mandatory objectives, along with other main producers and consumers: Austria, Germany, Italy, Spain and Sweden (Di Lucia and Nilsson, 2007, p. 540; see also Chapters 3 by Vogelwohl et al.; Chapter 7 by Di Nucci and Russolillo; Chapter 8 by Solorio and Fernandez). But a large front of opposition questioned the benefits of biofuels both in terms of environmental protection and security of supply. In the end, the final directive adopted in 2003 included only indicative targets.

In 2004, in the context of a national consultation process on energy, Prime Minister Jean-Pierre Raffarin unveiled an ambitious program – the Plan Biocarburant – to foster the production and use of biofuels. Three main rationales were invoked: support to agriculture, energy independence, and GHG emission reductions. It was clear however that the government's main motivation was to support agriculture. European objectives were restated as justification for the program (legitimizing usage), but the Plan Biocarburant put forward targets that were even more ambitious than those endorsed at the European level. In the 2005 energy bill, the objective of 5.75 percent biofuels was moved forward from 2010 to 2008 and a new objective of 7 percent was set for 2010, as well as a 10 percent indicative target for 2015. The targets were coupled with a biofuels obligation.⁸ This new fiscal instrument had been pushed by members of Parliament coming from areas with important agricultural production, notably beetroot producing regions (Interview 12).

The new biofuels policy created tensions with environmentalists, who denounced the impact of intensive agriculture, with the refinery industry which was already experiencing over

capacities in petrol production, as well as with the car industry (Szarka, 2006, p. 634). In its 2006 progress report on the implementation of directive 2003/30/CE, the Commission noted that France was lagging behind its 2 percent indicative interim objective for 2005 (COM, 2007, p. 7). Yet, the biofuels obligation provided strong incentives and, after an initial period of adaptation, the biofuels share in transport skyrocketed. Thanks to strong domestic policies and a favorable European environment, France reached its 5.75 percent European target as early as 2008, in line with its national plan and two years before the deadline set by directive.

9.4.3 The RED: uploading national ambitions and managing criticisms

Despite growing concerns about its environmental and social impacts, French support for biofuels production has remained strong at EU level. In its 2007 energy and climate change review, the Commission proposed a 10 percent target for RES in transport (RES-T) by 2020, officially to reduce carbon emissions in the transport sector and enhance security of supply. Directorate General Agriculture also pushed the target as a means to favor the development of the biofuels markets for European agriculture (Sharman and Holmes, 2010, p. 314). The 2006 sugar regime reform had led to a drastic reduction in guaranteed sugar prices and to the opening of EU markets, creating a need for compensations for EU sugar production. It is thus no surprise that the French farming lobby, notably beetroot producers, were fervent advocates of the RES-T target. In a context of rising attention for climate issues, the target was eventually made binding at the March 2007 European summit, under German leadership and with the backing of the French government.

During the RED negotiations, the RES-T objective was particularly controversial, with an increasing number of environmental NGOs and academic studies pointing more and more

vocally to the environmental and social impacts of biofuels production, as well as to potential competition with food production. With the sudden rise in food crop prices in summer 2008, which led to protests in several countries of the global South, public awareness increased sharply. As the polemic inflated at home, the French government set up a working group composed of members of the Ministry of Ecology, ADEME and the Institut Français du Pétrole (IFP) – a national research center on oil and energy – to assess the economic and environmental impact of ‘first generation’ biofuels based on food crops.⁹

At the European level, France defended the interests of its farming lobby (Ricard, 2008). The French position was also shaped by the strong political push to get an agreement on the package during its Presidency. The French authorities carefully steered the negotiations to avoid any direct challenge to the 10 percent target, which could have led to the unraveling of the whole package. During thorny negotiations on the definition of sustainable criteria for biofuels production, French representatives supported criteria which would put foreign countries at a disadvantage – notably through stricter environmental and social requirements – while opposing those that could affect domestic production (Interview 8). To get a deal, French officials were especially prone to make concessions, be it to the detriment of the RED’s environmental integrity. In negotiations with the European Parliament, the French Presidency opposed the inclusion of Indirect Land Use Change (ILUC) in the calculation of GHG emission reduction targets, stressing the absence of reliable methodology (Müngersdorff, 2009, p. 41).

Since the entry into force of the RED, French biofuels have continued their progression albeit at a slower pace. The 7 percent target was reached in 2012, two years after the deadline set in the national program (Cour des Comptes, 2012). Since then, the biofuels share has flattened off. No further target has been adopted and the 10 percent national indicative objective for 2015

was abandoned. According to the 2012 review of implementation of the RED, France was falling short from meeting its interim objectives, especially in terms of ethanol use. Although the French biofuels obligation is generally considered adequate, the country adopted its sustainability scheme only in late 2011, after being summoned by the Commission, and despite the Grenelle's commitments, it has failed to adopt further measures (Ecofys, 2012, p. 53, p. 147). Progress has notably been hampered by enduring concerns over the negative impact of first generation biofuels on food prices, land use and the environment (ADEME, 2012). Since 2008, French environment and development NGOs, notably France Nature Environnement (FNE) and the Réseau Action Climat France (RAC), have become increasingly active and have established themselves as a real counter-power (Interview 12). In addition, debates between the Ministry of Finance and the Ministry of Agriculture on the level of tax exemptions have sharpened in a context of austerity and budget constraints.¹⁰

European debates on new measures to alleviate the harmful effects of first generation biofuels and favor the development second-generation technologies have also contributed to curb the government's enthusiasm. Since 2012, the Council of the EU and European Parliament have been embroiled in difficult negotiations on the establishment of a cap on first generation biofuels to achieve the 10 percent target. In contrast with the more ambitious positions of the Commission and European Parliament who defended a 5 percent cap, the French government argued, in line with the position of the Council of the EU, for a 7 percent cap, which represents business as usual in the existing national framework (Interview 12). It was also reserved about the establishment of a specific target for second-generation biofuels deployment by 2020, preferring to maintain the status quo. The position defended by France and the Council eventually prevailed and was ratified by the European Parliament in Spring 2015. At the national level, the 'law on

the energy transition' adopted in the summer 2015 reiterates the European objective of a 10 percent share of renewable energy in transport by 2020, but also set an objective of 15 percent RES in final consumption in transport by 2030.

9.5 Comparative analysis and concluding remarks: differentiated impacts and uses of Europe

The French case is particularly interesting for studying Europeanization given the striking discrepancy between RES-E and RES-T policies. Looking at bottom-up Europeanization, the country's reserved attitude towards RES-E promotion contrasts with its positive approach to biofuels promotion. From the start, France has been a forerunner and 'pusher' on biofuels. Not only did French public authorities support high targets at the European level, but they also endorsed more ambitious ones at the national level. It is only in recent years that environmental concerns over first generation biofuels and fiscal constraints have hampered further developments. The situation appears quite different for RES-E, a sector in which France can be considered a fence-sitter. The country has acted mainly in a reactive fashion, adopting new targets and instruments in order to catch up with its European commitments and with more advanced partners. The leadership it has occasionally displayed, notably during the negotiations on the 2009 climate and energy package, has more to do with the prestige associated with international climate negotiations than with long-term commitments.

As this chapter shows, top-down processes of Europeanization also differ across the two sectors, reflecting the weight of national economic and political structures. The EU RES-E policy challenges core elements of the French electricity sector. The tradition of centralism, state interventionism and primacy of nuclear power do not fit with EU support for decentralized

energy production. Conversely, EU biofuels policy is more in line with the national agricultural tradition and represents an opportunity to support French farming. Successful top-down Europeanization largely depends on the preferences of national interest groups and their ability to facilitate or hinder the implementation of EU commitments. In both sectors, influential actors have defended salient economic stakes: EdF and the nuclear lobby in the case of RES-E; the FNSEA and farming lobby for biofuels. Yet European processes have also contributed to shaping these interests by influencing opportunity structures and issue framing. For instance, European commitments have encouraged EdF and Alstom to invest in RES, including large offshore wind projects, in order not to be left out of a European wide process. This, in turn, has changed the perception of RES in the administration, which now appears as a more ‘serious’ and large-scale industrial policy (Interview 9). Similarly, European debates on ILUC have fuelled environmental NGOs’ activism and pushed the administration and politicians to a more cautious attitude regarding biofuels promotion.

Europeanization is not only vertical but also horizontal. European partners, Germany in particular, have provided a model that has influenced policy developments in France. The French FIT was directly inspired by the German support system (see Chapter 3 by Vogelpohl et al.). As is the case with vertical Europeanization, the success of horizontal processes depends on the domestic context. The German model was imported by a coalition of actors in a favorable moment, marked by the participation of the Green Party in the government. The examples of Denmark, Germany and Spain have been used repeatedly by the RES-E advocacy coalition to promote further measures, framed as a way to catch up with more advanced European neighbors. As regards biofuels promotion, processes of horizontal Europeanization are less evident.

As should be clear from these two case studies, domestic actors are not mere recipients of

European processes; they also contribute to shaping them. They can make use of Europe in different ways, depending on their specific interests and ideas. It is thus no surprise if the effects of Europe can at times appear ambivalent. For instance, the French renewable energy coalition made a ‘legitimizing usage’ of European commitments and ‘cognitive usage’ of EU scientific resources in order to promote RES-E. Conversely, the anti-wind lobby has been able to make ‘strategic use’ of European law with the opposite goal. It resorted to EU state aid rules to contest the FIT system for wind power. In the biofuels sector, French authorities have strategically used EU biofuels policies as a way to compensate farmers for CAP reforms and justify national policies. But the environmental lobby has also been able to exploit European debates on ILUC to gain influence in the domestic policy process. Overall, well-established and powerful national actors, such as EDF or the farming lobby, have been especially efficient in shaping, using or resisting European processes. Nevertheless, the recourse to European references and legislation has been a key factor in empowering less established actors such as the pro and anti-renewable lobbies, or environmental NGOs.

From a theoretical perspective, this chapter makes the case for an actor-centered perspective on Europeanization that articulates structural conditions with the agency of individual and collective actors. Europeanization is clearly not an automatic process and the domestic level is more than a passive filter of European processes. European and national politics often interact in complex ways, both vertically and horizontally. Europeanization cannot be fully understood without looking at the way different domestic actors make use of European resources and opportunities, or resist European constraints, depending on their own positions. Such an approach could help go beyond the classic leader/laggard classification and draw a more detailed picture of the differentiated influence of Europe on national polities.

Notes

¹ The country was in an especially favorable position since the new directive was supposed to be adopted during the French Presidency, in the second half of the year 2000.

² France was one of the fifteen EU countries which missed its indicative target in 2010 (COM, 2013, p. 4).

³ In the administration, the 23 percent target was not perceived as favorable but was endorsed due to the strong political push of the Presidency.

⁴ The administration was generally hostile to a trading system and wanted to preserve the FIT, perceived as more efficient in promoting renewable energy technologies and manageable at the national level (Interview 5 and 7).

⁵ The TIPP was replaced by the National Consumption Tax on Energy Products (Taxe Intérieure sur la Consommation, TIC) in 2002.

⁶ These partial tax rebates are differentiated depending on biofuel types. To limit the losses in revenues for the state, the amount of biofuels eligible to tax reductions is restricted through quotas and licenses.

⁷ Although the Commission finally approved a revised scheme in 1997, the ECJ ruled that it was incompatible with state aid rules (2000). The French scheme was eventually authorized through a Council decision in 2002, along with similar schemes in Denmark, Italy and the Netherlands.

⁸ From 2005 onwards, transport fuel distributors were exempted from a General Tax on Polluting Activities (Taxe Générale sur les Activités Polluantes, TGAP), either partially or totally depending on the achievement of a biofuels incorporation annual target rising to 7 percent in 2010. In 2014, the objectives of incorporation were 7 and 7.7 percents respectively for bioethanol and biodiesel.

⁹ The final report, released in April 2010, presented a largely positive assessment of the environmental impact of biofuels (EurActiv, 2009). However, both its methodology and conclusions were harshly criticized by environmental NGOs, leading to the commissioning of a second report on ILUC.

¹⁰ The definition of tax exemption rates has traditionally created tensions between the Ministry of Agriculture, which wants more favorable rebates, and the Ministry of Finance, which wants to limit tax losses. In this enduring dispute, the Ministry of Environment has usually acted as a mediator (Interview 12).

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ⁱ The Special Regime was adopted through the Law 40/1994 on the planning of the national electrical system (commonly known as LOSEN Law) and further explained by means of the Royal Decree 2366/1994.

ⁱⁱ Law 54/1997 on the electricity sector.

ⁱⁱⁱ The continuous increase in energy consumption linked to economic activity and growth is in itself an indication of the failure to decouple energy consumption from economic activity, with very limited progress on energy intensity.

^{iv} Royal decree 436/2004.

^v Royal decree 661/2007 regulating the production activity under the special regime.

^{vi} The tariff deficit is the imbalance between regulated costs and revenues of the electricity system. It began accumulating in 2001, reaching Eur 26 billion in 2012 and a record Eur 29 billion in 2013.

^{vii} These measures included: royal decree 1565/2010 regulating and modifying certain aspects related to the production of RES-E based on the special regime, royal decree 1614/2010

establishing cutbacks to wind and solar thermoelectric energy and law 14/2010 establishing urgent measures to correct the tariff deficit, applying retroactive cutbacks to functioning photovoltaic plants.

^{viii} See royal decree/ law 1/2012 which suspended the retribution to new RES-E plants under the special regime.

^{ix} The 10 percent of RES in the transport sector was incorporated in the national legislation by means of the law 2/2012 2020 for a Sustainable Economy.

^x The transposition of the FQD was made in September 2010 by means of the royal decree 1088/2010.

^{xi} See law 15/2012 on fiscal measures for energy sustainability.

^{xii} The Commission also referred to the fact that the Spanish law treats sustainable biofuels and raw materials of different geographical origins differently in an unjustified manner.

10. Poland at the renewable energy policy crossroads – an incongruent Europeanization?

Karolina Jankowska and Andrzej Ancygier

10.1 Introduction

At the European level, Poland is well known for its opposition to climate change policy measures aiming at reducing carbon dioxide (CO₂) emissions, including development of renewable energy sources (RES). Generally, the country is depicted as a foot-dragger with some entrepreneurial skills developed more recently (Jankowska, 2011, p. 171). At the domestic level, Poland behaves generally as a laggard when it comes to the implementation of European Union (EU) renewable energy policy. This label applies especially to the electricity sector, where close links between the government and state-owned energy enterprises hinder the development of RES for electricity (RES-E). In the transport sector, the Polish government was much more welcoming in adopting ambitious European biofuels targets. However, Poland's willingness to replace fossil fuels by renewable energy sources for transport (RES-T) was limited exclusively to first-generation biofuels, which could potentially create many new jobs in the Polish farming sector. Generally, the Polish government has resisted any progress in the European renewable energy policy that could potentially require or cause far-reaching changes to the status quo at the national level and/or be costly for national interests (be it by successful blocking of EU policies, or weakening of

EU policies). This chapter deals with the complex relationship between Poland and EU renewable energy policy.

There exist already some analyses of policy change in the field of renewable energy policy in Poland and the role of the EU in this, as well as of interactions between Polish and European renewable energy policy (see for example Podrygała, 2008; Jankowska, 2011; Jankowska, 2012; Ancygier, 2013). However, they focus exclusively on the electricity sector. A systematic analysis of Europeanization of the transport sector with regard to biofuel promotion in Poland is lacking. Also the impact of the EU on RES-E and biofuel promotion in Poland in comparison has not been studied so far. This chapter aims to fill these gaps. In particular, it tries to explain how and why different domestic actors have shaped Poland's position towards European renewable energy policy (bottom-up Europeanization) as well as how these actors were affected by those policies adopted in Brussels (top-down Europeanization). Moreover, it investigates how and why these multi-level interactions and impacts have changed over time.

The next section presents the analytical framework of the chapter, which combines Europeanization with the advocacy coalition framework and the policy monopoly concept. In Sections 10.3 and 10.4 case studies on renewable electricity and biofuels promotion in Poland are analysed and explained based on this framework. The last section compares the two cases, draws some general conclusions and explains how the applied analytical framework helps in analysing the Europeanization process with regard to EU renewable energy policy.

10.2 Analytical underpinning and methods: Europeanization in a multi-level system

In general terms, this chapter relies on the Europeanization framework outlined in Chapter 1 by Jörgens and Solorio. However, in order to identify the causal factors behind what we call Poland's 'incongruent' Europeanization, this chapter combines Europeanization with the advocacy coalition framework (e.g. Sabatier, 2007, pp. 189-220) and the policy monopoly concept (e.g. Baumgartner and Jones, 2009). From this analytical perspective, interactions between the European and the domestic level are not straightforward, but steadily disturbed and influenced by diverse (intervening) factors such as long and short term constraints and resources of (dominant) advocacy coalitions (or policy monopolies), their policy beliefs, as well as domestic opportunity structures (see more in Sabatier, 2007, pp. 189-220; Jankowska, 2012, pp. 45-53).

Special attention is paid to the concept of policy monopoly, which may constrain the reformist attempts of advocates proposing changes to the status quo and be a potential obstacle to policy change in line with EU policy, thereby causing a 'superficial' Europeanization. Its two most important characteristics are as follows: 'First, a definable institutional structure is responsible for policymaking, and that structure limits access of other actors to policy process. Second, an issue definition or a belief system is associated with the institution' (Baumgartner and Jones, 2009, p. 7). Those who are able to define the issue on the agenda (through a favorable policy-making structure – polity) in line with their policy belief have a dominant position during the later policy formulation and implementation process (politics), be it on the national or EU level. These factors are helpful in analysing both the role of Poland in the formulation of EU renewable energy policy as well as the impact of the EU and other member states on the Polish renewable energy policy.

The authors have written this chapter based on their own analysis and research projects on RES policy in Poland. Those projects deal with the impact of the EU and other member states on Polish RES-E policy and the Polish role in its formulation at the EU level

(Jankowska, 2011; Jankowska, 2012; Ancygier, 2013). Further analysis of the most current developments in this field as well as analysis of the impact of the EU and member states on biofuel promotion in Poland and the Polish role in the formulation of EU biofuel policy have been conducted specifically for this chapter. All the studies and analyses mentioned rely on qualitative research designs, content analysis and process tracing. The authors analysed primary and secondary material and diverse statistical data sources. For the above mentioned research projects the authors conducted semi-structured interviews with business representatives, members of diverse non-governmental organizations (NGOs), researchers and civil servants in Poland.

10.3 The Europeanization of RES-E policy in Poland

10.3.1 General background of the power sector in Poland

In 2013 over 87 percent of electricity produced in Poland came from coal (Polskie Sieci Elektroenergetyczne, 2014), mainly hard coal. In order to understand the role of the hard coal industry in Poland nowadays we need to look especially at the last decades. The domestic coal industry has been developing since the seventeenth century (first documented mining in Upper Silesia) and established itself as a strategic element of Polish industry and economy, guaranteeing energy security based on domestic resources, creating jobs and contributing to economic growth especially after World War II (WWII). This development has led to a path dependency in Poland's energy policy. It continuously reinforces a status quo in this field that can be defined as the maintenance of a conventional system based on fossil fuels and/or

nuclear power, centralized production facilities, and non-flexible consumption patterns (e.g. Jankowska, 2012).

During the communist period this status quo was strengthened by nationalization and centralization, creating a strong economic and political interdependence between the state and the electricity sector. This interdependence persisted after the collapse of communism in 1989 (Jankowska, 2012). After 1989, the Polish power sector was reformed and reorganized several times, taking into account major challenges resulting from Poland's accession to the EU and competition in the internal European electricity market. Some of these reforms, such as the introduction of unbundling as well as the third party access principle (as required by directive 2003/54/EC), have had a positive impact on RES-E development in Poland, allowing the emergence of new actors, for example renewable energy enterprises (e.g. top-down Europeanization). Others, such as the horizontal consolidation process started in 2005, followed by the vertical consolidation one year later had the aim of creating few, but powerful, conventional energy companies – similar to Western European structures (e.g. horizontal Europeanization). They have however strongly limited the market access of small and medium sized renewable energy enterprises.

Although privatization programs do exist, the Polish state retains the right to maintain major shares in the four biggest energy companies, especially in PGE (Polish Energy Group) and Tauron, which together dominate more than 60 percent of the electricity market. All of Poland's freely elected governments since 1989 have feared losing state control of the power sector, and each has tried to maintain a strong economic and political interdependence. They have also paid great attention to the interests of coal miners represented by large and influential trade unions.

The Ministry of Treasury defending the interests of the state-owned power companies has become one of the major features of the existing policy monopoly, playing a crucial role in shaping Polish energy policy with regard to the power sector. The main goal of Poland's policy in this sector has been to keep the dominant position of PGE on the market not only by defending the role of coal as the major source of energy in Poland but also by planning to build two nuclear power plants by 2030 (Ancygier and Caspar, 2014). Also, production of shale gas, which the Minister of Environment Maciej Grabowski declared to be his main priority, is high on the government's agenda (WNP, 2013). The general background of the Polish power market as described here constrains enormously the capacity of RES-E advocates to take an active role and to increase the degree of political and institutional compatibility with EU RES-E policy. However, since at least 1989 Poland has made some important steps towards RES-E development.

10.3.2 EU-accession and the 2001 RES-E directive: turning points in policy formulation, 'superficial' Europeanization

During the late 1980s and beginning of the 1990s, Poland did not have any coherent vision or strategy for the development of RES-E (Jankowska, 2012, pp. 204-212, p. 315). Although between 1993 and 1999 there existed a Feed-In Tariff (FIT) scheme, only the smallest installations up to 5 megawatts (MW) received this support. This situation slowly started to change in the mid-1990s, when the European Commission began to influence indirectly the policy process in the field of RES-E in Poland. During that time a coalition of RES-E advocates (RES-E producers, their associations, and so on) also emerged and has since then been playing a growing role in the policy process.

As far back as 1994, parallel to the beginning of the EU accession process, the European Commission set up a renewable energy research institute in Poland called EC BREC (Podrygała, 2008, p. 72). Although EC BREC (later EC BREC/ IBMER and IEO EC BREC) became a part of the Polish Ministry of Agriculture in 1997, it has become the most important and influential RES-E advocate in Poland, and it was this institute which managed to put RES-E on the political agenda. In November 1997, it organized the first nationwide conference on the topic 'Development of renewable energy in Poland' which involved RES-E industry representatives and researchers. During the conference demands for the support of RES-E were formulated for the first time (Podrygała, 2008, p. 72). EC BREC was also involved in the preparation and adoption of the parliamentary resolution on the growth of RES adopted in July 1999, in the preparation and adoption of the 'Development Strategy for the Renewable Energy Sector' (*Strategia rozwoju energetyki odnawialnej*) (Ministerstwo Środowiska, 2000) as well as in the preparation of the draft of the first standalone renewable energy law in Poland, a draft which was ultimately not adopted. It can therefore be stated, that the EU co-initiated the debate concerning RES-E development in Poland in the 1990s and supported capacity building and policy formulation in this area by promoting changes in the beliefs and expectations of domestic actors and altering the domestic opportunity structure (i.e. top-down Europeanization).

The already mentioned 'Development Strategy for the Renewable Energy Sector' adopted by the Polish parliament in 2001, paved the way for EU accession and implementation of the 2001 RES-E directive. Although adopted a month earlier than the directive, the 'Strategy' included direct references to the draft directive (Podrygała, 2008, p. 76). Shortly after the adoption of the 'Strategy', the Ministry of Economy developed based on this an ordinance that introduced a quota obligation in Poland (Jankowska, 2011, p. 167). This can be seen as an example of horizontal Europeanization on the one hand, because during that

time more countries chose this support scheme. On the other hand, it is an example of top-down Europeanization because since the publication of the White Paper on the European energy policy in 1995, which initiated the debate on RES-E policy harmonization in the EU, the European Commission had begun to favor this instrument in communicating its view to member states (Busch and Jörgens, 2012, p. 75).

The target set in the ordinance for electricity suppliers amounted to 7.5 percent for RES-E in 2010 (Jankowska, 2011, p. 167). It was included in the EU accession treaty and subsequently also in the RES-E directive. Determining the Polish RES-E target happened without much resistance as EU accession had been of the highest priority for all Polish governments since 1989 (Jankowska, 2011, p. 173). Although the Polish Minister of Economy, responsible for the EU accession negotiations in the field of energy and the negotiations on the RES-E directive, tried to lower the target, which was initially introduced by his predecessor, he was not able to assert himself against the European Commission (Podrygała, 2008, p. 84). This is an example of the strong impact of adaptational pressure from the EU accession process and the implementation of the *acquis* on Polish RES-E policy (i.e. conditionality).

However, the 'Strategy' was supposed not only to set targets for the share of RES in Poland. It obligated the government of the following legislative period to adopt a separate renewable energy law. Among other things, it called for the introduction of a support scheme for RES-E based on certificates, competition and tendering. In 2001, the EC BREC/ IBMER was commissioned by the government to prepare a draft of the RES law. The proposed draft was a solid basis to meet the Polish 2010 RES-E target. After the government reorganization in 2004 the Minister of Environment changed and blocked the adoption of the EC BREC/ IBMER proposal in the Cabinet. The new director of the ministry's department 'Instruments for Environmental Protection' had previously worked for the state's grid operator PSE SA

and therefore had close connections to the conventional power industry (e.g. political interdependence) (Grużewski, 2004). He strongly criticized the EC BREC/ IBMER draft law and prepared an alternative proposal intended to limit support for RES-E. During the consultation process for the law, only representatives of the conventional energy industry were invited to participate, which is a clear example of an institutional structure limiting access to the policy process, a core characteristic of policy monopoly. Finally, however, the Cabinet did not adopt the proposal of the Ministry of Environment, because it would have failed to meet the ‘Strategy’ and EU obligations. Only the energy law (Sejm, 1997) was amended in 2005 by introducing Tradable Green Certificates (TGCs) to support RES-E development. A separate renewable energy law had not been adopted in Poland until 2015.

However, the support scheme put in place in 2005 did not include many of the incentives that had been initially proposed by RES-E advocates in the draft law prepared by EC BREC/ IBMER. For instance, it did not set different certificate prices for different RES technologies and fixed only the bottom price of a certificate, which did not provide enough investment security and financial incentives for RES-E producers. Moreover, it included support for large hydropower plants whose repayment terms had been already completed for a long time, as well as biomass co-firing in inefficient coal plants which reduced the price of TGCs on the market, reducing incentives for other, small scale, private and decentralized RES technologies. Consequently, the adopted policy measures were, in the opinion of many experts (e.g. Podrygała, 2008, p. 53, pp. 85-86; Jankowska, 2012, pp. 283-284; Ancygier, 2013, pp. 310-313), insufficient for achieving the 2001 RES-E directive target. In fact, Poland did not achieve it by 2010.

Limited policy change derived from EU accession and the 2001 RES-E directive was caused to a significant extent by the existence of a long-standing policy monopoly. On the other hand, without EU adaptational pressure even such a limited policy change would

probably not have occurred in Poland in the RES-E policy field as the amendment of the energy law. But still, this was only a formal implementation of the RES-E directive which Poland could dare to do, due to any serious consequences (e.g. financial penalties) of not meeting of the RES-E target. The Europeanization of RES-E policy in Poland at this stage was merely 'superficial'.

10.3.3 The 2009 directive: foot-dragging in negotiations, 'superficial' implementation

Shortly after the European Commission presented a draft of the renewed directive, Poland criticized the national targets for 2020 and proposed a lower one (11 percent or eventually 13 percent of gross energy consumption). Nevertheless, it finally approved the Commission's proposal (Jankowska, 2012, p. 281). This can be seen as a mild foot-dragging strategy.

Indeed, during the negotiations of the EU 2009 climate and energy package, Poland was decidedly more concerned with its other parts, especially the revision of the EU emission trading scheme (ETS), than with the draft proposal of the renewable energy directive (RED).

Therefore, the national discussion about the energy and climate package also almost completely ignored the RES policy issues, whereas the existing policy monopoly concentrated its strengths and resources on 'fighting' the ETS Directive. Another reason for the mild foot-dragging could be the rather long-term target for 2020 as set in the RED proposal, whereas the ETS directive proposal concerned a short-term period and would already have a direct impact from 2013 (Jankowska, 2011; Jankowska, 2012, pp. 281-282).

Also the change in the political and public understanding of the role of RES-E in the national electricity mix could have influenced the position of Polish negotiators at the EU level. The question in the political discussion and public eye has since then no longer been

whether RES-E should be developed, but how the development should be carried out. A crucial element of change was top-down Europeanization by means of changing expectations and beliefs of domestic actors. Europeanization contributed to increasing knowledge and thus understanding and acceptance of the RES-E policy among politicians and society (Jankowska, 2012).

Once Poland won the battle over the revision of the EU ETS directive in 2009, the existing policy monopoly has undertaken attempts to weaken the implementation of the 2009 RED at the national level by allowing only moderate alterations in the existing system which would not reduce their economic and political advantages. The National Renewable Energy Action Plan for RES which Poland adopted in December 2010, six months later than required in the 2009 RED, includes measures, which may involve the conventional power industry in the development of RES-E in Poland. According to the plan, Poland would achieve its EU goal through the development of wind energy, biomass co-firing and the building of one additional large hydropower plant with 100 MW capacity (Jankowska, 2012, p. 319). Such investments can only be financed and conducted by the huge companies of the conventional power sector. The government amended the existing energy law in July 2013, introducing a support mechanism for small scale RES-E technologies up to 40 kilowatts (kW) of installed capacity (so called micro-scale installations) based on a FIT scheme. However, according to the amendment, the produced RES-E could be sold for only 80 percent of the average electricity price from the last year. This element has been criticized as too little to encourage investments and as advantageous, again, merely for the big energy companies.

In April 2014 the government sent to the parliament the long expected separate renewable energy law, which was adopted by the lower chamber of the Polish parliament (*Sejm*) in January 2015. Against the will of the government the majority of the members of parliament added an amendment, which introduced differentiated FITs for RES units with

installed capacity below 10 kW. However, the level of the tariffs was significantly reduced during the debate over the renewable energy law in the *Senat*, the upper chamber of the Polish parliament. And the situation for larger installations looks much worse. The planned capacity and price caps in the auctioning process are believed to rather block RES-E development and seem to be beneficial only for the big energy companies. What is more, biomass co-firing in inefficient coal plants is still being defined as renewable source of energy, although it cannot be considered as a contribution to fulfilling the RED target (Jankowska, 2012, p. 307).

In any case, without more stable and predictable incentives for RES-E, Poland will not achieve its 2020 RED target. The implementation of 2009 RED is therefore an example of a ‘superficial’ Europeanization of Polish RES-E policy. Although the share of RES-E in the electricity sold to the end consumers has increased to over 12 percent in 2012, almost half of it was coming from the co-firing of biomass in coal-fired power plants (Urząd Regulacji Energetyki, 2015). Since biomass co-firing in those power plants speeds up their abrasion, mostly old plants are used for this purpose. With many of these plants planned to be switched off due to the air pollution obligations resulting from the industrial emissions directive (WNP 2014), and investment in new wind energy power plants slowing down, it remains questionable whether Poland will be able to fulfill its 2020 target.

This had a negative impact on Poland’s willingness to adopt binding RES targets for 2030. Already in 2012 the Polish Ministry of Environment stated clearly, that it will veto any such targets if proposed by the European Commission (REO, 2012). This may have been one of the main reasons, why there was no agreement on a binding 2030 RES target during the meeting of the Council in October 2014, despite strong German support (BMW, 2014). Thus it can also be referred to as an example of ‘Polonization’ of the European energy and climate policy (Ancygier, 2013, p. 385) and a clear example of a food-dragging strategy, which was this time not merely ‘mild’.

10.4 The Europeanization of biofuel policy in Poland

10.4.1 Before EU-membership: enthusiasm for biofuels and legislative chaos

Similarly to the electricity sector, also in transport Poland is heavily reliant on fossil fuels. Due to stable oil deliveries from the Soviet Union no trend towards alternative fuels existed until the mid-1990s. When in 1994 the government introduced tax exemptions for biofuels, the measure was not motivated by European environmental policy or fossil fuels dependency but by the attempt to provide farmers with an additional source of income (Gwiazdowicz, 1994). Reducing excise taxes turned out to be very successful and led to an increase in biofuels production. But due to budget constraints it was decreasing annually and therefore made a long-term investment in production facilities difficult. As a result, the share of biofuels in the transport sector decreased from 1.72 percent in 1997 to 0.78 percent in 2000 (Sejm, 2003, p. 2).

The EU began to have an impact on Polish biofuels policy in the early 2000s when it published two important documents: the Green Paper 'Towards a European strategy for the security of energy supply', which suggested introduction of target of a 7 percent biofuels share in the transport sector by 2010 and 20 percent by 2020 (COM, 2001a, p. 43), and a draft of the biofuels directive in November 2001, which included a target of 5.75 percent for alternative fuels in the transport sector by 2010 (COM, 2001b, see Chapter 2 by Solorio and Bocquillon). In response to European legislation and differently from the situation in the electricity sector, domestic actors in Poland relatively quickly created a strong coalition supporting the development of biofuels and thus the implementation of EU legislation in this

area. But the main reason was not a decrease of the CO₂ emissions from the transport sector but – like in some other countries, as in France (see Chapter 9 by Bocquillon and Evrard) – the potential of biofuels to create new jobs in the agriculture sector. With over 8 million people fully or partly employed in the agriculture sector in Poland in 1998 (Stankiewicz, 2000, p. 34), increasing the standard of living for farmers also had a great political importance. Some journalists and experts even called Poland a ‘Kuwait of Europe’ and expressed the hope that the huge overcapacity of Polish agriculture could be used to power European cars after Polish EU accession (Weiss, 2002). But to fulfill all these hopes, more coherent biofuels legislation was necessary.

In July 2002 three separate drafts of a biofuels law were submitted to the Polish parliament. The first one was drafted by the government (Sejm, 2002a), the second by a group of members of the parliament (MPs) from the opposition party Civic Platform (Sejm, 2002b), and the third one by MPs from the eurosceptic opposition party *Samoobrona* (Self Defence), which was popular especially among farmers (Sejm, 2002c). Whereas the first two drafts were very similar and included an ambitious target of 5 percent for the share of biofuels in the transport sector by 2006, according to the proposal of the euro-sceptic Self Defence this target was to be reached two years later in 2008 mainly by using domestic resources for biofuels production. Based on all three projects, a compromise proposal, which still included the requirement to use exclusively domestic resources, was adopted by the parliament. In the end however the biofuels law was vetoed by the president, who argued that drivers could not be forced to use fuels which might be harmful for the engines of their cars and that limiting access of foreign products to the Polish market would contradict European law (Sejm, 2003a).

In April 2003, shortly after the president’s veto, the government sent another draft of the biofuels law to the parliament. Its content was strongly influenced by stakeholders from the farming sector. In December 2003 they organized themselves into the National Chamber

of Biofuels with the goal of defending the interests of the Polish companies which were developing the biofuels sector (Wojciechowska, 2004). Also the Polish People's Party (PSL), which targeted farmers as their main electorate, expressed the intention to introduce measures that would increase the share of biocomponents in the transport sector. With the well-organized biofuels advocates and strong support for biofuels in the government, a policy monopoly emerged which aimed at making biofuels development beneficial for the Polish agricultural sector. A way to achieve this goal was to force oil companies to increase the share of biocomponents that they were supposed to mix with the fuels they sold, a measure that met the opposition of the Lotos Group, the biggest state owned oil company in Poland (Pańczyszyn, 2009a). Despite this opposition, the law included a 4 percent target for the share of biofuels in 2004: twice as high as the one discussed in Brussels for 2005. The reason for this high level of ambition was the hope that after joining the EU Poland would already have the resources and the infrastructure to produce biofuels which could then be exported to other EU countries (Aumiller, 2003).

As it happened, this ambitious target turned out to be unrealistic. When the biofuels law entered into force in January 2004, there was not enough capacity to allow the fulfilment of the 4 percent target for the share of biofuels in the transport sector using domestic resources. Therefore, the government decided to lower the target in a separate ordinance to 1.6 percent by September 2004 and 2.4 percent by the end of the year to give domestic actors more time to develop necessary production capacities (Council of Ministers, 2004a). The situation of the biofuels sector worsened further after the Constitutional Court declared the already signed biofuels law as unconstitutional due to the fact that it did not allow consumers to choose between regular fuels and fuels including biocomponents. The court also criticized those elements of the law which obliged distributors of fuels to include a certain share of biocomponents and thus, according to the court, it ran contrary to the spirit of the free market.

The court further argued that although Poland was obliged to implement European legislation, the indicative target mentioned in the biofuels directive did not justify such ‘radical’ measures (Constitutional Court, 2004).

The prospect of accession had a strong impact on Polish biofuels even before Poland became a member of the EU. Although some measures promoting biofuels did already exist in the 1990s, it was the implementation of the EU’s biofuels directive that invigorated the discussion about biofuels in Poland and led to the creation of a coalition supporting this source of energy. At the same time, however, one can notice an instrumentalization of EU policy to achieve different goals from those which had led to the formulation of the 2003 biofuels directive. Although the directive mentioned the possibility of ‘creating new opportunities for sustainable rural development’, there was no explicit mention of the potential for job creation. This has become, however, the main goal of Polish biofuels policy and has had important repercussions for the Europeanization of Polish biofuels policy in subsequent years.

10.4.2 Poland in the EU: delayed implementation of the European biofuels legislation

The legislative insecurity caused first by the President’s veto in 2003 and the Constitutional Court’s judgment a year later had a negative impact on investments in biofuels. The situation improved slightly after the introduction of excise exemption on 1 May 2004 – coincidentally the first day of Poland’s membership of the EU (Council of Ministers, 2004b). Nonetheless, the 2003 biofuels directive still had not been fully implemented into Polish law and the share of biofuels in 2005 in Poland was expected to reach only 0.5 percent instead of the 2.0 percent mentioned in the directive (Wiśniewski, 2005). This led the European Commission to issue a

letter of formal notice to Poland for failing to submit its national report as expected (COM, 2005).

As a result of the pressure from Brussels, implementation of the 2003 biofuels directive was among the tasks mentioned in the *Polish Energy Policy until 2025* adopted in 2005. The draft of the new law, which was supposed to transpose the biofuels directive, this time included much more realistic goals for biofuels development and simply referred to the EU's indicative target of 5.75 percent (Ministry of Economy, 2005). As in the case of the formulation of previous drafts of the biofuels law, this time as well, the National Chamber of Biofuels played an important role and actively contributed to the early draft of the law (Pańczyszyn, 2006).

In the end, the biofuels law entered into force on 1 January 2007. Its final version included a number of elements which contributed to rapid development of biofuels in Poland in the subsequent years. Among other things, it significantly reduced the bureaucratic barriers for farmers producing biofuels for their own needs. But especially important was the introduction of national indicative targets for the minimum share of biocomponents which should be added to the fuels traded or consumed. The targets were to be defined by the Council of Ministers every three years for the next six years (Sejm, 2006). An ordinance specifying these targets was issued a year later. It included not only the 5.75 percent target for the share of biofuels by 2010 introduced in the 2003 biofuels directive, but also a much more ambitious target of 7.10 percent for the share of biofuels by 2013 (Council of Ministers, 2007).

As a result, the consumption of biofuels in Poland increased from 1 percent in 2005 to 6.3 percent in 2010. It was the third best result in the EU, after Austria and Sweden, and almost twice as high as in the EU-28 average (Eurostat, 2014). But the desired effects of the

biofuels development in the form of additional jobs and sources of income for farmers did not materialize. Due to the reduction of tax exemptions on biofuels and the possibility of importing cheaper biocomponents from South American and Asian countries, the situation of the biofuels industry in Poland had worsened significantly and most of the capacity had not been used. In 2010 only 18 percent of bioethanol consumed in Poland had been produced domestically (Krzemiński, 2013).

The implementation of the 2003 biofuels directive in Poland turned out to be very inefficient. Not only did Poland fail to transpose it on time, which led to a formal ‘letter of notice’ from the European Commission, but also, with most of the biofuels coming from abroad, the domestic goal of job creation was not achieved. The main reason for the partial failure of top-down Europeanization was the attempt to use European biofuels policy to create new jobs quickly while ignoring the need to provide investors with a stable, long-term legal framework for the development of biofuels domestically.

10.4.3 Changing winds from Brussels and opposition from Poland

In the meantime, first-generation biofuels lost their popularity at the European level. The main reasons were their potential contribution to an increase in food prices and in some cases a not as positive as expected reduction of the CO₂ emissions (Oxfam, 2012). During the negotiations of the energy and climate package in 2008 Poland did not take any clear position on the role of biofuels and – differently from the overall RES goal – was seemingly satisfied with the 10 percent goal suggested by the Commission. At the same time, however, the government and the National Biofuels Association were strongly opposed to replacing first-generation by second-generation biofuels, which would not have such a beneficial effect on

farmers growing rapeseed. As a result, these associations have been calling for an implementation of the 2009 RED in a way which would on one hand tighten the sustainability criteria, and thus limit the import of biofuels from outside of Europe, while at the same time also limit the possibility to replace biofuels by other alternatives (Stępień, 2012).

The Polish government failed to implement the 2009 RED with regard to biofuels until the Commission began to threaten sanctions. Only in 2014, almost four years after the deadline, the biofuels law from 2006 was amended to fulfill the requirements of the directive in respect to sustainability standards (Sejm, 2014). Before, in 2013, the government adopted an ordinance with the national indicative targets for the years 2013-18. According to this target, the increase in the share of biofuels was to slow down, but still should have been much higher than at the EU level on average (Council of Ministers, 2013).

As a result, the Polish targets for first-generation biofuels were much higher than those proposed by the Commission in its draft of the so-called ILUC Directive (see Chapter 2 by Solorio and Bocquillon). The latter would limit the share of the first-generation biofuels to 5 percent within the 10 percent 2020 RES-T target of the 2009 RED (COM, 2012). During a vote on the Commission's proposal, 47 out of 50 members of the European Parliament from Poland voted against it. Also during voting in the Council, Poland formed part of the blocking majority thus making adoption of the ILUC directive in the form suggested by the Commission impossible. Only in mid-2014 did Poland accept the new version of a significantly watered down directive. In this way Poland defended the policies and targets it introduced as a result of EU impact, a situation difficult to imagine in the case of the electricity sector. Consequently, a top-down Europeanization of the biofuels policy in the initial years of Polish EU membership led to a bottom-up uploading of measures defending the continuation of the use of first-generation biofuels in the EU.

10.5 Comparative analysis of RES- E and biofuel cases and conclusions

In the analysed case studies, the different mechanisms of Europeanization manifest themselves in quite different and ambiguous ways. Although Poland has often tried to weaken RES-E targets at the EU level, only in the case of 2030 RES target adopted in 2014 has it had enough political power, entrepreneurial skill and interest to shape European policy according to its respective preferences. Until then, Poland had attributed lower meaning and impact to those European RES-E targets than to other measures such as, first and foremost, the EU ETS.

Differently from RES-E, biofuels targets were readily agreed upon even though legislative chaos and a lack of necessary infrastructure made their achievement initially very difficult. The EU's move towards second-generation biofuels led to Poland's opposition and increased activity at the European level in shaping the biofuels policy. The bottom-up Europeanization with regard to RES-E is therefore an example of a foot-dragging strategy, generally mild and unsuccessful, with the only exception of the 2030 RES target. In contrast, in the case of biofuels, the Polish tactic of defending ambitious goals concerning development of first-generation biofuels was more successful and led to delay in the adoption of the ILUC-directive until its new version, with higher targets for first-generation biofuels, was adopted in June 2014.

Concerning horizontal Europeanization, clear examples could be mainly found only in the RES-E case. They show that Poland has been eager to adopt policies, best practices and norms shared by the majority of member states when they have suited its own preferences, such as consolidation of the energy industry and introduction of quota obligation and TGC.

As more member states have begun to introduce FITs, Poland has not followed this trend (with the recent exception of a FIT for the micro-scale installations).

Ambiguities could also be observed with regard to the impact of the European renewable energy policy on national RES-E and biofuels policy. Although the EU has supported domestic RES-E advocates by setting the legal framework as well as by promoting changes in the beliefs and expectations of domestic actors, and altering the opportunity structure, the policy outcomes have been weakly compatible with EU policy, guaranteeing at best only its formal implementation, without any deeper compliance by changing the core of Polish renewable energy policy. On the other hand, the Polish government and domestic actors embraced the targets of the 2003 biofuels directive. Despite some delay a separate biofuels law was adopted in 2006, which enabled Poland to reach its target much earlier than by 2010. Problems began when the EU started introducing sustainability criteria for biofuels and promoting second and third-generation biofuels.

Most policy outcomes in the analysed case studies are therefore evidence of ‘superficial’ Europeanization of the Polish renewable energy policy. However, the Polish government was much more welcoming in adopting ambitious European biofuels than RES-E targets. Reasons for this incongruent Europeanization have mainly been different resources, belief systems (or issue definitions), and opportunity structures of advocacy coalitions (or policy monopolies) in the electricity and transport sectors: as opposition to RES-E on the one hand and as biofuels advocacy on the other. It shows clearly that Europeanization is not a single and separate force of influence, but a process being itself interfered with by many diverse factors in a multi-level system, that only altogether may well help to understand the policy change.

In the power sector ‘superficial’ Europeanization has been caused by the unwillingness and inability to abandon Poland’s state-owned, centralized and coal-based power industry structures and arrangements. Although the understanding of the role of RES-E in the political and public debate has enormously changed since at least 1989, policy makers have almost always been acting more in the interest of the representatives of the conventional power industry than of the RES-E industry. The conventional power sector is still more powerful and better organized than the emerging RES-E industry and its advocates. There has been a strong economic and political interdependence between the state and the conventional power industry. All of these are reasons for the continuing existence of a policy monopoly in the Polish power sector. And this policy monopoly allows only for moderate alterations in the existing system which would not reduce its economic and political advantages. Therefore, all RES-E policies introduced in Poland have been designed in ways in order not to affect the role of the conventional power industry, or at least to try to minimize these changes.

For the biofuels case, EU membership has offered a window of opportunity to develop the agricultural sector and provide farmers with additional income. Differently from the power sector, in this case a policy monopoly of the biofuels industry has developed. The actors opposed to an ambitious biofuels policy were few and – as turned out to be decisive – did not enjoy strong support on behalf of the government. At the same time biofuels advocates, as opposed to RES-E advocates, managed to organize themselves and present a common position towards policy changes. Although the National Biofuels Chamber has not always been successful in influencing Polish biofuels policy, for example when it failed to prevent the reduction of tax exemptions for biocomponents, it managed to influence the policy making process which led to the adoption of the biofuels law. But, despite using arguments about the beneficial impact of biofuels on climate protection, their introduction in Poland has always been much more about jobs than about the environment. The much smaller

potential of second-generation biofuels in comparison to first-generation biofuels for job creation in the agricultural sector led Poland to oppose their stronger promotion at the EU level and domestically.

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11. The Europeanization of Renewable Energy Policy in Romania

Simona Davidescu

11.1 Introduction

The development of a renewable energy policy in Romania is at first glance a ‘success story’ of significant growth in just a few years, going against its perceived ‘laggard’ reputation (Noutcheva and Bechev, 2008). This chapter looks at how European Union (EU) directives in this sector have been transposed in Romania, altering the opportunity structure for domestic actors and international business interests. However, results were uneven across sectors and a variety of structural, procedural and practical barriers to policy implementation still persist. Furthermore, the promotion of renewable energy sources (RES) has been contested during the last few years and associated with the economic crisis, high energy prices and political turf wars. Despite this, the authorities declared on 1 January 2014 that Romania’s 2020 target of 24 percent RES in the energy mix had already been reached (Ionascu, 2014).

The literature on renewable energy in Romania has grown greatly in recent years, following renewed interest in this policy area at the domestic level from policymakers, businesses and the voluntary sector (The Diplomat, 2011, 2013), coupled with the effects of restructuring the power generation sector in Romania (Haar and Marinescu, 2011; Diaconu et al., 2009). Although largely descriptive, the literature assesses the potential (Dinica, 2003) and recent growth of the RES sector in Romania (Colesca and Ciocoiu, 2013), as well as the instruments for promoting (Dinica, 2003; The Diplomat, 2011, 2013) and limits or obstacles to RES-E (Dinica, 2003; Budusan, 2011). This chapter deals with a gap in the literature regarding the impact of EU regulation in the field of renewable energy before and after

Romania's EU accession in January 2007. In doing so, it reveals the limits of the EU's influence when targets are within reach and domestic policymakers face significant opposing coalitions, in the context of an economic crisis.

The focus is on RES for electricity (RES-E) policy and on biomass/biofuels as an example of RES for transport (RES-T). The research question addressed here is what was the EU's policy impact in these two fields of renewable energy policy? Were the domestic changes generated by conditionality conducive to sustainable compliance after accession? The preliminary argument in this chapter is that support for RES-E and RES-T in Romania is another example of 'shallow Europeanization' (Goetz, 2005), following mainly a top-down dynamic, and overall 'weak' sustainability, based on declaratory commitment to principles, while the main object of policies is economic growth (Baker, 2006, pp. 30-33). Although changes generated by conditionality have empowered a set of actors, the overall climate is one of limited implementation. Despite a range of barriers, investment in RES-E (particularly wind and solar) reached unexpected levels and contributed to Romania attaining its 2020 target early, while significantly lagging behind its targets for RES-T. The main explanation put forward is related to the set of instruments used, in particular financial incentives, different barriers to implementation and the availability of cheaper external solutions (imports) in the case of RES-T.

The following section looks at the analytical framework and research methods used, while Section 11.3 and Section 11.4 trace the legislative process of RES-E and respectively RES-T support schemes with their many amendments and barriers to implementation in practice. The chapter concludes with a comparative view of the RES-E and RES-T sectors and a reflection on their overall sustainability in Romania.

11.2 Analytical underpinning and methods

The chapter uses the Europeanization framework as detailed in chapter one (see Chapter 1 by Jörgens and Solorio), with the main expectation being that the Europeanization of RES-E and RES-T in Romania will be largely top-down, following on from the need to comply with EU rules. This follows rationalist institutionalism accounts of the EU's domestic impact and 'logic of consequences', in that 'the EU changes the opportunity structure for utility-maximizing domestic actors' (Sedelmeier, 2011, p. 11). Despite the change in the opportunity structure and a sudden and substantive growth in investment in RES more generally, a significant 'institutional misfit' and a range of barriers to implementation in practice suggest the legacies of the communist and post-communist periods are important in understanding adjustment costs. Using historical institutionalism, this chapter takes into account how the different historical legacies (including geography, institutional setting, culture, economic and social conditions) impact on aspects of democratization (Pop-Eleches, 2007). These legacies explain the limits to Europeanization and its 'shallow' nature in the case of Romania.

Post-accession, the main questions raised in the literature on Europeanization have been related to the sustainability of formal institutions and possible policy reversals (Sedelmeier, 2011, p. 25). It is mainly to this literature on compliance that the chapter makes a contribution, looking in detail at implementation beyond the formal legal transposition of EU directives, including legislative amendments, non-compliance, creative compliance and policy reversal.

Furthermore, the chapter looks at the extent to which there is evidence of bottom-up Europeanization in terms of Romania's ability to influence policy-decisions at the EU level after its entry in 2007. The initial position adopted by Romania has been one of fence-sitting, a neutral stance marked by less pronounced policy preferences, constrained action capacity and reliance on coalition building depending on the issue involved (Börzel, 2002, p. 207). Fence-sitters such as Romania would prefer to avoid costly European policies 'simply by not implementing them rather than raising opposition in the decision-making process' (Börzel,

2002, p. 208). The relationship between Romania and the Visegrád 4 countries, as well as examples of lesson-drawing from other Member States such as Spain and the UK, show only limited and occasional evidence of horizontal Europeanization.

This chapter employs text/document-based analysis in the study of political institutions, using a qualitative research design and legislative process tracing. The chapter looks at a range of primary sources: documents and policies from Romania and the EU level, interviews with stakeholders published in the media, information from official websites of institutions involved in the policy-making process and other relevant stakeholders.

11.3 The Europeanization of RES-E policy in Romania

11.3.1 The appeal of large hydro and the ‘lost decade’ of the 1990s

The development of RES-E has been hailed as one of the few ‘positive’ legacies of the communist regime in Romania, with hydropower being overwhelmingly preferred. From the 1960s to the late 1980s all major rivers had large hydropower plants in place, providing an additional energy source to the dominant coal and gas (Dinica, 2003, p. 149). In the 1980s, other types of RES-E started to be financed from the state budget, in particular small hydro and wind plants, using largely domestic technology, but suffering from ‘overcentralized management’, ‘severe technology import restrictions’ and the distorting practice of keeping fossil fuel prices low, especially coal (Pencea, 1993, p. 137).

The early 1990s saw some continuation of previous practices in terms of reliance on cheap fossil fuels, and even the large hydro sector suffered from a shortage of funding in the context of transition. Small hydro plants and wind farms under construction or in need of refurbishment were being abandoned or slowly privatized (Pencea, 1993). Overall, the liberalization, privatization and restructuring of the energy sector was almost non-existent in this period, following a view that ‘utilities in the energy sector should remain integrated and

property of the state' (Constantinescu, 2013). A change in government in 1996 gave top priority to Romania's late effort to join the EU in the first accession wave, by starting liberalization in this sector and addressing transparency and functionality¹, while the state still retained the majority stake in all types of energy generation (The Diplomat, 2011).

By 1998 it was clear that Romania and Bulgaria (see Chapter 12 by Hiteva and Maltby) would only join the EU in a second accession wave, resulting in some of the reform efforts taking a back seat, especially with regard to the privatization of the energy sector and the liberalization of energy prices (Haar and Marinescu, 2011). This is consistent with the findings of the literature on Europeanization in the candidate countries, in that the 'EU's policy impact depended on a credible membership incentive' (Sedelmeier, 2011, p. 22).

11.3.2 The accession negotiations and Romania's entry in the European Union (2002-2007)

Further reforms in the electricity sector can be linked to the start of the EU accession negotiations on the energy chapter, from March 2002-2004. Diaconu et al. (2009, p. 117) note that 'from the very beginning, Romania accepted the entire Community acquis in the electricity sector and did not foresee any problems in fully applying it upon the accession'. The transposition of the acquis was done largely in a top-down manner, addressing the policy misfit in the first instance. The government usually issued emergency decisions (GD)² that entered into immediate effect, to be adopted by parliament without much debate at a later date. Further legislative changes were needed for implementation: developing action and implementation plans and amendments to keep up with changes at the EU level.

The pre-accession period was dominated by top-down Europeanization: Romania's sustained efforts to formally adopt and transpose the acquis at a fast pace. Romania transposed the RES-E directive through emergency procedure in GD 443/2003, setting a target of 30 percent of national gross electrical energy consumption from RES-E by 2010, to

include large hydro, at a time when other RES investment was negligible. A further GD 1892/2004 introduced gradual mandatory quotas for RES-E until 2010 and a new instrument to promote investment: Green Certificates (GC).³ Data from 2008 included in the National Renewable Energy Action Plan showed that out of a total production of RES-E of 16,918GWh (gigawatt hour) (100 percent), large hydro represented 95.4 percent, hydro between 1-10MW (megawatts) 3.9 percent, hydro smaller than 1 MW 0.6 percent and wind 0.1 percent (NREAP, 2010, p. 21). A further GD 958/2005 introduced minimum and maximum values for GC and effectively created a centralized market, dominated by hydroelectric power (The Diplomat, 2013). Despite this initial supporting legislation, there were limited investments in RES-E, as loans were difficult to secure because of significant upfront costs, high risk and limited reward (one certificate per MWh [megawatt hour]) (Mediafax, 2011). At this pace, Romania was heading for a possible infringement of its commitments for the RES-E targets after accession.

11.3.3 The post-accession period: changing pace

While the previous period was a case of top-down Europeanization, a first test of Romania's capacity to upload its own preferences (i.e. bottom-up Europeanization) came soon after the 2007 accession, with the negotiations of the EU climate and energy package. The position for these negotiations was based on the first Energy Strategy of Romania (2007-20) and prior domestic legislation on this area. The draft strategy was discussed in early 2007 by a committee of politicians from across the political spectrum and reviewed by the EU energy commissioner, Andris Piebalgs, in a visit to Romania (Wall Street Romania, 2007). The agreed target of 24 percent of RES-E from gross domestic consumption was criticized by the domestic media as unrealistic' (IncomeMagazine, 2010), but the authorities were trapped by

their prior conflated predictions and commitments and did not object to the Commission's proposal.

Romania has used effectively the opposition of other new member states led by Poland (see Chapter 10 by Jankowska and Ancygier), and joined a common position at a meeting in Gdansk between leaders of the 'Eastern' member states and the French President Sarkozy (due to France holding the Council Presidency at the time), on minimizing the costs of reducing carbon emissions and a more 'flexible' application of the climate and energy package (Evenimentul Zilei, 2012). This 'fence-sitting' approach of building tactical coalitions with foot-draggers such as the Visegrád 4 countries (Börzel, 2002, p. 194) has proved beneficial for subsequent negotiations in the European Council. The result of negotiations on the 2020 climate and energy package was portrayed by both President Traian Băsescu and Prime Minister Călin Popescu Tăriceanu as a success and in the national interest, and the side-payments obtained were the simplification of procedures to access EU funding and the highest percentage of EU funding for a significant reduction in greenhouse gases (GHG) emissions from 1990 levels (Financiarul, 2008).

At the domestic level, change in the level of investment in RES-E was prompted by a separate parliamentary initiative. This broke with the pattern of decision-making by emergency legislation and was met with opposition from the government. The parliamentary initiative led by the opposition (B.536/2007^s) – eight Members of Parliament from the Social Democratic Party (PSD) as well as national minority groups – preceded the negotiations at the EU level of the climate and energy package. It drew on some examples from the member states, such as Germany (see Chapter 3 by Vogelpohl et al.), Denmark (see Chapter 5 by Dyrhaug) and Spain (see Chapter 8 by Solorio and Fernandez), as models to follow in stimulating investment in RES-E, rather than borrowing specific policy instruments (B.536/2007, Expunere de Motive).

This shows that pro-RES actors were benefiting from an altered opportunity structure, and were able to draw on compliance data from across the EU (OPTRES, 2007). The Tăriceanu government opposed the draft on the grounds that the previous GD 1892/2004 was in compliance with EU directives and the proposed legislation could only be valid for a maximum of two years before it would have to be substantially amended to comply with the new EU climate and energy package under negotiation (B.536/2007, Punct de Vedere). Despite these reservations, law 220/2008⁶ passed with ease through both chambers of the Romanian Parliament after being debated in four different committees. The media portrayed this result as the victory of business interest groups, which effectively lobbied members of the Chamber of Deputies and the Senate (Gellner, 2013).

One of the main provisions of law 220/2008 was to differentiate the GCs in terms of the type of technology: one for hydropower; two for wind, three for biomass and four for solar energy. Moreover, investment was encouraged by other incentives: the value of GCs was raised, the duration of the scheme varied according to how new the equipment was, tax exemptions were applied⁷, mandatory annual quotas of green energy were set, and there was a guaranteed priority access to the electrical energy transportation and distribution network. Overall, the legislative framework for the support of RES-E was considered ‘one of the most generous in the EU’ (The Diplomat, 2013). The scheme sent a clear positive signal to investors and the number of new projects soared over the next few years, up to three billion euros by 2013 with a further commitment to double this figure over the following years⁸ (The Diplomat, 2013). The surge in RES-E projects highlighted capacity problems for grid connection (guaranteed by law 220/2008): demand was reported to outgrow by four times the transport capacity of the national grid, making major investments necessary in the near future (Burchett, 2011).

However, the government decided to use delay tactics: action and implementation plans did not follow to operationalize the new legislation and the European Commission was

not notified of the scheme on the grounds of state aid. Law 220/2008 was not implemented even a couple of years later, when it started to be amended. In order to transpose the renewable energy directive (RED), an amendment (law 139/2010) passed through Parliament with ease, despite a large number of changes (mainly clarifications) to almost every article. A further amendment a year later was deemed necessary ‘in order [...] to obtain as soon as possible the approval of the [support] scheme by the European Commission’ (GD 88/2011, Nota de Fundamentare). An informal dialogue on this issue between Romanian authorities and the European Commission (2009-11) comprised letters containing 47 clarification questions (Pirvoiu, 2011a). By 2011 the European Commission considered that provisions of law 220/2008 did not constitute state aid, and that support in the aggregate did not result in overcompensation (COM, 2011, p. 15). This finally gave the green light for the implementation of law 220/2008 via an emergency decision (GD 88/2011). It was a year later that Parliament passed it into law with some additional clarifications (law 134/2012). The support scheme in this form lasted until 2013, when new amendments were proposed to drastically limit its remit and applicability.

This long delay in implementation raised significant concerns for investors that had already secured loans with stringent conditions and made investment plans (Pirvoiu, 2012). Despite this, the effects of the support legislation in practice were a surge in investment, particularly from foreign businesses (while local technology and investors could only marginally compete), a development of the market in legal services, and a boost for the development of wind and solar energy: by December 2013 projects of 2,503 MW from wind energy; 1,155 MW from solar energy; 65 MW from biomass and 530 MW from small hydro had been installed (The Diplomat, 2013). Lobby groups representing a wide set of interests were set up, such as the Romanian Wind Energy Association⁹, which benefited from direct lobbying of the European Commission’s Director General (DG) Energy as well as DG Environment (RWEA, 2013).

The controversy surrounding policy implementation had obscured the deeper institutional misfit, which became apparent after 2011. As the RES-E sector was growing, there was a need for a designated central institution for energy, but its set-up took until 2014. The restructuring of the Ministry of Economy in 2012 saw the allocation of a Department for Energy, with specific attributions for ‘realizing the national conditions for the implementation of the energy-climate change package’ (Ministry of Economy, Commerce and Business Environment [MECBE], 2012, p. 81). While the Romanian Ministry of Environment had been involved in negotiations in the Council of Ministers for the climate and energy package, in terms of policy implementation, its role was limited to the climate change part of the package. Throughout 2013 there had been a clear move towards the creation of a ‘mini-ministry’ by the head of the Department for Energy, Constantin Niță (PSD), which included relocating to a separate building and gathering all staff with any energy-related skills or experience (around 250 out of the MECBE’s 700 members of staff), predominantly those who were specialists in ‘conventional’ energy (Pirvoiu, 2013). By March 2014, Constantin Niță took over the position of Minister of Economy and a new portfolio was put in place for a Delegated Minister for Energy, Răzvan-Eugen Nicolescu, a former ‘attaché’ to the EU on energy issues.

The institutional reforms were necessary not only at the central level, but also at the local level: dealing with a cumbersome permit system and limited numbers of specialized staff to investigate the impact of proposed projects. A study from 2012 found excessive bureaucracy and corruption to be the main barriers to RES-E (a total of approximately 100 approvals and permits were necessary for the launch of a project), together with a lack of financing (Terra Mileniul III, 2012). Furthermore, projects were often approved without proper examination of their environmental impact, particularly at the local level.

Environmental groups had consistently opposed specific wind, biomass and small hydro projects that had received approval for construction in protected natural areas, blaming local authorities for corrupt practices and a deliberate breach of existing legislation (Terra Mileniul

III, 2012). These concerns were overshadowed by mounting opposition to RES-E after 2012, led by emerging powerful veto players, which made the government change direction towards the ‘dismantling’ of the support scheme, invoking the economic crisis.

11.3.4 Coping with the economic crisis

Throughout 2012-13, the country’s leading industrial lobby started to mobilize more effectively, blaming the RES-E support scheme for a significant increase in electricity prices. New technology, increased competition in the electricity market and the generous GC support system were driving up prices for consumers (The Diplomat, 2013). Furthermore, the effects of the economic crisis led to a decrease in consumption levels for electricity, significant loss of jobs and cuts in levels of public expenditure. The lock-in effect of EU accession meant that the government could not continue its practice of writing off debts for big industrial consumers, one of the legacies of the communist regime continued in the post-communist period, coupled with keeping the price of electricity low (UN, 2001). The Association of Big Industrial Energy Consumers (ABIEC) emerged in this period as a powerful veto player, considering that its members alone consumed around 10 percent of the total domestic energy production (Pirvoiu, 2014b). It was joined by trade unions from the industry sector as well as concerned citizens, who protested in front of government buildings (Cartel Alfa¹⁰, 13 April 2014; Pirvoiu, 2013).

The government and the Romanian Energy Regulatory Authority (ANRE) responded by amending law 220/2008 further (GD 57/2013), including the suspension of green certificates until 2017, a provision allowing the government to change the support scheme at any point in the calendar year, and setting a limit to the amount of electricity certified through GCs per annum. The announcement of this new change to the legislation led to a ‘market

freeze’: ‘There were no more signings of contracts with turbine producers, no more projects were sold, no more loans were granted.’ (The Diplomat, 2014).

Numerous complaints from RES-E investors and environmental non-governmental organizations (NGOs) were sent directly to the European Commission, expressing concern about the planned modifications to the RES-E support scheme (Pirvoiu, 2014a). After several informal contacts, the European Commission recommended the start by Romanian authorities of a formal pre-notification process. This was used by other domestic actors, such as President Traian Băsescu, as a weapon in his on-going conflict with the head of the government, Victor Ponta, by refusing to promulgate GD 57/2013, sending it for re-examination in both chambers of Parliament and to the Constitutional Court¹¹ (Pirvoiu, 2014a).

In January 2014, ANRE officially declared that Romania had already reached its 2020 target of 24 percent RES-E of the gross final energy consumption, as part of its commitments under the 2009 RED (Ionascu, 2014). Following this announcement, ABIEC lobbied for further concessions and ArcelorMittal threatened the government with a move out of Europe (Bărbulescu, 2013). In response, the Ponta Government proposed further legislation to exempt big energy consumers from supplementary taxes on energy (Pirvoiu, 2014b), waiting for the results of an EU level debate on ‘Draft Guidelines on environmental and energy State aid for 2014-20’ before sending a formal notification to the European Commission.

The impact of the economic crisis has pushed Romanian authorities not only to devise new policy amendments to protect heavy industry, but to support this more actively in a bottom-up approach at the EU level. For negotiations on the 2030 climate and energy package, Romania has continued to build coalitions with fellow Visegrád 4+ members (Joint Statement, 2014). The Joint Statement did not support binding targets, calling for a solidarity mechanism and compensatory measures for lower income member states. It questioned the impact of the package on the competitiveness of the industry, invoking the economic crisis,

coupled with raising energy prices for domestic consumers and the Ukraine crisis's impact on energy security (Joint Statement, 2014).

There is some limited evidence of horizontal Europeanization following the logic of economic competition, as the government linked the last policy amendments of 2013-14 to the economic crisis and the unpopular increase in electricity prices, using examples of other member states 'dismantling' their support schemes, particularly Spain (Sisea, 2013; see also Chapter 8 by Solorio and Fernandez). Furthermore, Prime Minister Victor Ponta considered that it was worth learning lessons on energy policy from Poland (see Chapter 10 by Jankowska and Ancygier), as stated during an official visit in 2013 (Bodeanu, 2013).

Overall, the picture of RES-E support in Romania is illustrative of the type of policies and strategies Romania came up with over the last decade: one of mixed signals, from overwhelming legislative support to backtracking and reversals of decisions, but the lock-in effect of EU legislation created the conditions for the emergence of RES-E supporters and ultimately the reaching of assumed targets.

11.4 Biofuels and RES-T promotion in Romania

By contrast, the promotion of biofuels in the transport sector in Romania has been a case of failure to reach targets, with a large deviation in its RES-T targets from its National Renewable Energy Action Plan (NREAP) ambition, of 4 percent biofuels, compared with the 5.75 percent target by 2010 (ECOFYS, 2012, p. 48). This was due to a range of barriers to implementation specific to this sector and the availability of external solutions, mainly cheap imports of biofuels. Unlike the RES-E case, there has been almost no prior investment in the use of biofuels for the transport sector before the first related legislation was introduced in mid-2000. This has been again mainly a case of top-down Europeanization, prompted by the need to comply with the *acquis* before the EU accession in 2007. The main mechanism for

Europeanization has been the adoption of existing EU policy prescriptions, as prompted by conditionality and the proximity of accession.

The path to policy transposition for the biofuels directive was via emergency decree (GD 1844/2005), followed by a clarification amendment (GD 456/2007). The initial targets set in GD 1844/2005 were: a 2 percent mix of biofuels by the accession date of 2007 and 5.75 percent by 2010. The Ministry of Economy and Commerce was the central institution in charge of monitoring, implementation, information and reporting to the European Commission. This policy was not subject to debate during Romania's negotiations on the energy chapter (2002-04), as it was not considered problematic because of its voluntary targets, hence the later transposition. By 2006 members of the Romanian negotiating team from the Ministry for European Integration considered that Romania would not be able to reach the 2 percent target before the EU accession in January 2007 (Chiriac and Vasilache, 2006).

The first amendment of the legislation in 2007 signalled some of the problems for this area: GD 456/2007 was setting sanctions and placing the burden on 'economic operators' for the introduction of the fuel mix on the market. These specifications were designed to address in practice the deliberate non-compliance of the main domestic fuel producers (Petrom and OMV), who were waiting for financial incentives and legislative clarifications before making any investments (Chiriac and Vasilache, 2006). A first set of incentives entered into effect at the start of 2007 through a new fiscal code that eliminated excises for biofuels (Chiriac and Vasilache, 2006). This was short-lived: in 2008 and again in 2011¹³, the Ministry of Finance reinstated excises blaming the EU for changes in price (Budusan, 2011). Romanian authorities had limited interest in using a wider range of instruments (beyond subsidies or tax cuts) for biofuels promotion and for learning from abroad. This is consistent with the short-termism of government policies which characterized the transition period and a lack of political

agreement on the direction of a longer-term energy strategy, which would not be subject to reversibility (Matei, 2014).

Law 220/2008 contributed to the promotion of biomass more generally by allocating three green certificates per MWh produced. However, most of the investment has been concentrated on solid biomass for electricity and heating, rather than the transport sector. However, the existing legislative framework has altered the domestic opportunity structure and prompted the emergence of a range of entrepreneurs from both the business sector and the political elite. The initial reaction of business investors after the transposition of the biofuels directive and law 220/2008 was slow and spearheaded again, as in the case of RES-E, by a handful of foreign investors, mainly from Portugal and Germany¹⁴, followed by the United States (Angheluta, 2012). Domestic-only businesses were more limited, with a few factories under construction in Vaslui and Zimnicea. The first association promoting the interests of domestic producers, the Romanian Biofuels Producers' Association (APRB), was set up in 2007; while a more visible Romanian Association of Biomass and Biogas (ARBIO) was established in 2012. By 2014 ARBIO had 45 members and started a more sustained public awareness campaign, with supporters from core ministries and parliament, (Hoza, 26 June 2014). Some of the biggest landowners in Romania¹⁵ were also investing in bioethanol refineries and were reputed to have been the behind-the-scenes supporters of a similar support scheme for biofuels as that for RES-E (Pirvoiu, 2011b).

At the end of 2010, a parliamentary legislative initiative from the House of Deputies had been proposed for the promotion of biofuels for transport (CD 388/2011)¹⁶, stipulating a shorter period for reaching the 10 percent target, by 2015, and the elimination of excises for biofuels. The supporters from both the opposition and government parties battled against the government, and it took until the end of 2013 for the proposal to be finally rejected by the Chamber of Deputies. The explanation for the failure of this initiative was that by this time the full effect of the economic crisis, coupled with the backlash against the RES-E support

scheme was being felt, and a further rise in fuel prices would have been an unpalatable option for most Members of Parliament (Pilot Magazin, 2011).

Further revision of legislation by the government via GD 829/2010 was linked for the first time to meeting commitments under the Kyoto Protocol (ratified by law 3/2001) and the 10 percent biofuels target of the 2009 RED (GD 829/2010, Nota de Fundamentare¹⁷). The Tăriceanu government's position was one of fence-sitting in the negotiation of this target: building coalitions with neighbouring countries on specific issues, while accepting the Commission's target proposals in exchange for concessions on EU financial aid: for biofuels specifically, the side-payment was making the automobile industry eligible for European Investment Bank loans (Financiarul, 2008).

Another amendment followed only a year later (GD 935/2011) and was designed to set staggered annual quotas¹⁸ for reaching the 10 percent mix in 2020 for petrol and 7 percent by 2015 for diesel. Furthermore, clear criteria for sustainability in the sourcing of biofuels were set, specifying that these apply for biofuels of domestic, EU or other provenance. The amendment came in direct response to the existing practice of most conventional fuel producers and distributors of using imported biofuels (Budusan, 2011).

This legislation was supplemented by some general strategic policy documents, such as energy strategies¹⁹ and a specific 'Biomass Master Plan' (Ministry of Economy, 2010). Based on estimates and national strategic documents, the government believed targets could be reached if the estimated 'significant potential' of 'biomass'²⁰ was fully exploited (Ministry of Economy, 2010), but these were often based on optimistic assumptions of sustained economic growth without any further instruments for the promotion of biofuels, beyond recommending institutional coordination and further strategies at the regional level, as well as making full use of EU funding (Ministry of Economy, 2010, p. 17). The lack of suitable projects that would use EU funding was linked to Romania's general absorption problems (Katsarova, 2013), but also to a range of barriers specific to this area, coupled crucially with

the availability of cheap biofuels from imports, while domestic crops were exported in unprocessed form (Budusan, 2011).

Some of the main barriers to the use of domestic crops for biofuels were related to infrastructure problems that can be linked to the legacies of the early transition period: the small size of farms (an average of 2 hectares [ha]), the differing amounts of feedstock between areas and the poor quality of the roads in rural areas which can become impassable in winter (The Diplomat, 2011). This was coupled with the difficulty of securing funding for projects (Ministry of Economy, 2010, p. 5), due to much larger start-up investments (in costly technology, and the need for irrigation, transportation and storage capacity), leading to higher production costs in the short run (Budusan, 2011). The requirements of banks could potentially be insurmountable, for example with regards to land ownership or inflexible development plans that did not leave room for the unpredictability of a drought (The Diplomat, 2013). Contracts that would ensure supply were difficult to set up, because of the ageing farming population's distrust of this level of long-term commitment, the lack of cooperation between small producers and the lack of a system for collecting agricultural waste (Budusan, 2011). This could be coupled with a range of administrative barriers including obtaining the necessary permits and approvals from too many institutions,²¹ while at the local level, the scarcity of financial resources for the administration was coupled with a lack of long-term planning and information (Miron, 2014).

Finally, there were some practical obstacles to the consumption of biofuels: a large pool of older vehicles that could not use biofuels and a reluctance on the part of the public to even try a higher percentage mix (Budusan, 2011). Furthermore, there was also mounting opposition from environmental groups to specific projects. This was the case for agricultural crops grown in protected natural areas, prompting awareness of the link between biofuels and food scarcity, as well as the increased use of genetically modified organisms (GMOs) for

biofuel crops and rampant deforestation, fuelled by corruption and unsustainable practices (Terra Mileniul III, 2013).

In the current context of the economic crisis, there is little indication of a solution to address this wide range of legislative, administrative, structural, practical and environmental obstacles, in the absence of adequate instruments and incentives for the promotion of biofuels. While the focus on biomass is mainly on continued use for heating and RES-E (particularly co-generation), rather than transport (Ministry of Economy, 2010), at least at a declaratory level, there is widespread political support for biofuels, with 'biomass' being named a top priority for the next Energy Strategy of Romania (2015-35) (Matei, 2014).

11.5 Conclusions

The cases of RES-E and RES-T promotion in Romania were illustrative of the limits to Europeanization and the importance of domestic political developments. In both cases it was EU policies which prompted change in the beginning, and which were subsequently linked to an economic rationale for attracting foreign investment (RES-E) and tapping into otherwise wasted domestic potential, consistent with rationalist institutionalism accounts. While the targets for RES-E were already reached in January 2014, despite delays in implementation and policy retrenchment, Romania is lagging well behind its RES-T targets and looks to continue doing so for the foreseeable future. The reasons for this discrepancy were a mixture of structural constraints, legacies of the communist and early transition periods and wider processes of transformation (including liberalization, restructuring and land restitution), as well as timing and economic considerations.

Fast transposition of EU directives and a generous support scheme allowed RES-E investment to increase beyond expectations after 2008, leading by 2013 to a backlash from veto players and policy retrenchment. Romania has experienced significant delays in

implementation, as a way of dealing with the economic crisis. Domestic level commentators blamed the start-stop and reverse strategy of the government on political short-termism and lack of vision (The Diplomat, 2013), reflected in the institutional misfit and ‘stickiness’ of previous institutional structures and administrative practices, which were often a barrier to sustainable development more generally (Davidescu, 2013). The incentive systems for the promotion of renewables in RES-E and RES-T had very different effects, often unintended or miscalculated by policymakers, despite both cases being characterized by a need to reach ambitious targets. This was because policy implementation has been a constant struggle and politically motivated. Historical institutionalism has been particularly relevant in showcasing the importance of legacies for understanding the barriers to policy implementation, despite early transposition of EU directives.

The impact of the support scheme for RES-E has been far-reaching for the entire energy sector and consumers, hence electorally costly, while the responsibility for reaching RES-T targets was passed on to economic operators, the penalties for non-compliance have been low and the effects on fuel price rises less dramatic. The set of actors promoting RES-E and RES-T differed greatly in terms of legislative input and the level of financial investment. While RES-E promotion has highlighted the political, institutional and physical limits to implementation, the promotion of RES-T added to these structural limits, which were too costly to address in the short term.

However, this chapter has shown that the need to adopt the EU acquis has provided both the impetus and a straitjacket for reform, resulting in shallow institutionalization and some innovative ways of bending the rules. New actors have emerged on the scene and coalitions of supporters and detractors of RES-E and RES-T development are here to stay. At a declaratory level and in the development of strategy documents, biomass is still a key priority area for the Romanian government and tipped for significant investment in the future.

In practice, however, the discrepancy between legislative commitments, targets, incentive systems and investment levels in the RES-E and RES-T sectors seems wider than ever.

Notes

¹ Part of the liberalization measures were the breaking of monopolies and creation of an electricity market. The supporting institutions were a state-level national energy authority (RENEL), the Romanian Energy Regulatory Authority (ANRE), the Competition Commission (Haar and Marinescu, 2011, p. 2248) and the electricity market operator (OPCOM).

² ‘Hotarare de Guvern’ (HG) or ‘Ordonanta de Urgenta’ (OU) were the main legal terms used, here translated and abbreviated as Government Decision (GD).

³ Defined as ‘a quantity of 1MWh of electrical energy produced from renewable energy sources’, regardless of the technology.

⁴ The media noted that out of all the other member states, Romania’s 24 percent target ‘had the smallest percentage of growth’ and did not take into account the steady domestic increase in electricity consumption and the fact that estimates in strategy documents were often based on limited information and over-optimistic projections, ‘attracting smiles in Brussels’ (Income Magazine, 6 April 2010).

⁵ Legislative process tracing for initiative B.536/2007, accessed on 10 August 2014 at http://www.cameradeputatilor.ro/pls/proiecte/upl_pck.home

⁶ Law no. 220/2008 on Establishing the Promotion System for the Production of Energy from Renewable Sources, Romanian government,

http://www.cameradeputatilor.ro/pls/proiecte/upl_pck.home

⁷ This involved ‘a guarantee of maximum 50 percent of the value of the medium or long term loans or tax and fee exemptions or discounts for reinvested profit, for three years from the commissioning of the investment’ (law 220/2008).

⁸ This commitment is now under threat as a result of recent changes in legislation (GD 57/2013).

⁹ RWEA is an umbrella organization founded in 2008, bringing together energy producers, turbine manufacturers, construction, transportation, insurance, accountancy, environmental consultancy, law firms and even banks (RWEA, 2013).

¹⁰ Open Letter to the Romanian Government from the National Trade Confederation Cartel Alfa, the Federation of Steel Industry Union Metarom, the National Federation of Trade Unions Solidaritatea, Metal and the Federation of Unions in the Metalurgical Industry, in consensus with industry owners.

¹¹ This was rejected by the Constitutional Court on the grounds that although the European Commission had not been formally notified, this did not result in a breach of national constitutional law.

¹² The fines established were however minimal, between 7,500 lei and 150,000 lei (GD 456/2007).

¹³ After a brief period in which excises for biofuels were again reduced, compared with those for regular petrol and diesel (Budusan, 2011).

¹⁴ The Portuguese Martifer group and the German group MAN Ferrostaal.

¹⁵ Adrian Porumboiu and Ioan Niculae were cited as the main producers of rape crops and respectively processed bioethanol in the country (Pirvoiu, 2011b).

¹⁶ Chamber of Deputies, 388/07.06.2011 ‘Legislative project regarding the promotion and use of biofuels and other renewable fuels for transport’, accessed on 10 August 2014 at

http://www.cameradeputatilor.ro/pls/proiecte/upl_pck.home

¹⁷ Legislative process tracing GD 829/2010, accessed on 10 August 2014 at

http://www.cameradeputatilor.ro/pls/proiecte/upl_pck.home

¹⁸ An increase of 1 to 2 percent every two years, to alleviate the burden on economic operators (GD 935/2011).

¹⁹ Romania's energy strategy for 2007-20 (approved through GD 1069/2007), revised for 2011-20. A new energy strategy is under way, with an initial overview released in early December 2014 and launch of public consultations in spring 2015.

²⁰ The term biomass is consistently preferred by Romanian authorities as a generic word covering energy used for electricity generation, as well as heating and transportation. Biomass is already used in proportions of 84.6 percent for heating; and biogas (0.1 percent) for co-generation (Ministry of Economy, 2010).

²¹ The Ministry of Agriculture and Rural Development; the Ministry of Regional Development and Public Administration; the Ministry of Transport; the Ministry of Environment and Climate Change, the Delegated Ministry for Waters, Forests and Fisheries and the Delegated Ministry for Energy.

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12. Hitting the target but missing the point: failing and succeeding in the Bulgarian renewable energy sector

Ralitsa Hiteva and Tomas Maltby

12.1 Introduction

Despite reaching its European Union (EU) 2020 target of 16 percent renewable energy electricity (RES-E) by 2012, and achieving 19 percent by 2013 (Eurostat, 2015a) domestic support for renewable energy sources (RES) in Bulgaria has been steadily declining, while numerous retroactive measures have left RES capacities stranded and many projects in limbo. On the other hand, Bulgaria is facing a significant reduction in its electricity capacities by 2030 with the closure of coal power plants and its nuclear power plant. Furthermore, as one of the newest members of the EU, Bulgaria has had access to a wide range of funding for renewable projects. The questions this chapter addresses are what factors have driven the development and subsequent stagnation of the Bulgarian RES sector; and why Bulgaria seems to be a reluctant overachiever? This chapter traces the development of RES in Bulgaria from the 1960s until 2015, paying particular attention to the role of EU policy in shaping Bulgaria's RES sector and policy. To this end the chapter aims to explain national policy change in two areas: the promotion of RES-E and biofuels in the transport sector, in the context of Europeanization mechanisms. The main research question is to what extent do Europeanization mechanisms - the result of EU accession for Bulgaria in 2007, and pre-accession conditionality - explain the growth and stagnation of the RES market. Section 12.2 outlines the analytical framework for the research, Section 12.3 considers the RES-E case study, and Section 12.4 examines biofuels. In conclusion it is argued that top-down Europeanization was a highly influential process in determining renewable sector developments. However, instead of acting as a catalyst for the growth of a sustainable RES

industry, EU pressure resulted only in a temporary change in investment opportunities, failing to effect long term change in the beliefs and expectations of key domestic actors in the energy sector.

12.2 Analytical underpinning and methods

The dynamic changes to the Bulgarian RES since 2005 have been affected by a mixture of top-down and bottom-up mechanisms of Europeanization, whose influence has changed over time. Europeanization in terms of the top-down pressure from the EU to develop national renewable energy policy has been a process which has proven influential in acting as a stimulus for the RES electricity industry in Bulgaria between 2001 and 2010, alongside decreasing technology costs (Parsons Brinckerhoff, 2012). However, Europeanization pressures exerted far less influence on the biofuels sector. EU pressure has been mediated through the material conditions of the Bulgarian energy infrastructure; the veto power of traditional dominant actors and a patchwork regulatory framework in the energy market.

The Europeanization framework used here refers to Radaelli's (2004) interactive and interdependent means of EU policy making consisting of processes of construction, diffusion and institutionalization of the array of formal and informal mechanisms and practices defined by EU policy processes, and translated in the context of member states. Knill and Lehmkuhl (1999, p. 2) whose typology of Europeanization mechanisms argues that adaptation pressure on member states stems from three mechanisms: the prescription of 'an institutional model', altering 'the opportunity structure and domestic actor constellations' and also (over time) changing beliefs and expectations of domestic actors in order to rally support for EU policies (see also Chapter 1 by Jörgens and Solorio). We examine the extent of policy change or policy resistance in Bulgaria derived from the EU impulse on the basis of the degree of institutional compatibility, the degree of resource and power redistribution between domestic

actors, and the degree of support mobilization for domestic reforms (Knill and Lehmkuhl 1999, p. 3).

Whilst Europeanization is conceived as a two-way process (Börzel, 2002), the process of bottom-up Europeanization, the uploading of Bulgarian preferences in renewable energy policy has been less prominent, due to limits of administrative capacity and long-term strategic planning, and active resistance from national actors. Thus, renewable energy policy can be defined by fence-sitting, foot-dragging and delaying the implementation and operationalization of EU RES-E policies.

There is limited evidence of Bulgaria adopting national policies in response to, or anticipation of the policy choices of other governments – key mechanisms of horizontal Europeanization. This is partly because, both politically and in terms of energy, Russia (and its investment in Bulgarian nuclear energy) is still very influential in Bulgaria (Maltby, 2015). Another reason is that the role of Bulgaria as an exporter of electricity to neighbouring countries like Greece and Turkey has been declining in recent years. Although Bulgaria is one of several countries in the EU which have lowered and removed Feed-In-Tariffs (FITs) and RES quotas, it has cited concerns about national energy security in doing so. The data utilized for this research focuses on secondary literature and primary data in the form of EU and Bulgarian government laws, policies and objectives as well as elite interviews.

12.3 RES-E in Bulgaria

12.3.1 RES-E in pre-accession Bulgaria

Tchalakov et al. (2013, p. 132) refer to the period from 1950 to 1970 when the country was fully electrified as 'the golden age of Bulgarian electrification'. Electrification of the whole country, in line with the Soviet model of accelerated electrification by building large and

powerful electric power stations, was a central point of the Communist party's agenda. By the mid-1950s the total installed capacity of electricity in the country was significant (900 megawatts [MW]). Driven by industrialization and urbanization demand the Bulgarian electricity system continued to grow until 1989, and Bulgaria became a regional energy hub. Mid and large size hydro power plants were developed particularly to stabilize the energy system and balance lignite coal power plant production, where the low yield of lignite coal used in thermal power plants precluded significant variations in power production (Tchalakov et al., 2013). Following the decline in industrial production during the transition to a market economy, Bulgaria became a major exporter of electricity in the early 1990s because of a large electricity surplus.

During this period the energy sector underwent a series of structural, managerial and material changes, the most of significant of which was privatization. One of the prerequisites of Bulgaria's 2007 EU accession was the unbundling of the country's electricity sector. The 1999 EU Electricity Liberalization directive required the Bulgarian government to carry out a series of key changes to the electricity market: market liberalization; providing private companies access to transmission networks; unbundling (including the setting up of a Transmission Systems Operator [TSO]); and establishing procedures for commissioning new generation capacity (Ganev, 2009; SEWRC, 2010). However, the EU's transformative effect on the Bulgarian energy sector started even before Bulgaria applied for EU membership in 1997 (Vachudova, 2005), with the signing of Association Agreements with the EU (Cameron, 2007), and through 'linkages' and 'leverages' between Bulgaria and the EU (Way and Levitsky, 2007).

In the 1990s and early 2000s Bulgaria introduced changes to the energy sector motivated by more stringent environmental policy, mainly to address air and water pollution. Bulgaria's application to the EU led to a working group on environmental issues, to review EU legal instruments and ensure conformity with EU directives and regulations (UN, 2000, p.

3), with an Environmental Protection Act in 1997 followed by a 1998 Regulation specifying an Environmental Impact Assessment which conformed with EU law (UN, 2000, pp. 3-5).

This period of change introduced a larger number of stakeholders such as private electricity distribution companies (EDCs) in the energy sector, in conjunction with the loss of control by the state over some parts of the energy infrastructure networks. However, the state managed to retain strategic parts of the electricity and infrastructure through the establishment of parastatal companies like the National Electricity Company (NEK). During this first stage of Europeanization, as a non-member state Bulgaria had limited input into the negotiation of the first RES-E directive (directive 2001/77/EC) and at the same time, the importance of electricity in the energy mix of Bulgaria increased significantly.

12.3.2 A period of intense top-down Europeanization (2001-2010)

The period between 2001 and 2007 was a period of intense top-down Europeanization. It involved preparing the national legislation for EU accession and aligning the ongoing processes of privatization and liberalization of the Bulgarian energy sector with EU standards and requirements. The national indicative target for 2010, set by directive 2001/77/EC, was for an 11 percent share of electricity from RES in the gross domestic consumption of electricity. To bolster the renewable energy market in the country, the 2003 Law on Energy provided preferential prices for RES electricity (Bulgarian Government, 2003, article 33), without mandatory purchase contracts. With no previous legislation focused on incentivizing RES in Bulgaria, two national programmes were introduced to facilitate the implementation of the EU directives. A RES National Long-Term Programme for 2005-2015 set out the need for the accelerated installation of RES and was supplemented by a National Short-Term Programme in 2007 (Bulgarian Government, 2008, pp. 10-11).

However, a combination of high technology prices (for solar panels and wind turbines), and a lack of history of state support for the renewable industry resulted in negligible growth in RES-E in Bulgaria before 2007, with zero solar installations, and only 1.7 kilotonne of oil equivalent (ktoe) of solar photovoltaic (PV) energy (Eurostat, 2015b). Those interested in developing renewable projects were few and far between, and were waiting for Bulgaria's accession to the EU and stronger incentive packages (Interviews 1 and 2, 2011).

The 2007 Renewable and Alternative Energy Sources and Biofuels Act (RAESBA) was a turning point for renewable investment in Bulgaria and a significant step forward in the process of Europeanization of the Bulgarian RES sector, with national policy reflecting EU pressure. The Act provided long-term contracts of 12 years for existing RES producers and those who started production by the end of 2010, with the exception of large hydro (above 10MW) (Bulgarian Government, 2007), and 'obligatory and priority connection of each producer of electric energy from RES [...] to the closest distribution or transmission enterprise', and for the regulator, SEWRC, to set prices annually (Bulgarian Government 2007, article 21).

While the RAESBA offered a comprehensive set of incentives for developing wind and solar power in Bulgaria, it did not match the available free grid capacity, and was not strategically planned by the government, for example through phased availability. The national transmission system lacked the necessary capacity to accommodate a rapid increase in intermittent renewable sources such as wind and solar power (COM¹ 2013, p. 27). Financial and regulatory incentives were undermined by the lack of technical capacity of the electricity grid. The Bulgarian government was criticized at the EU and the national level for failing to introduce clear mechanisms regarding connections to the electricity grid, and for not providing the necessary regulation of market players, which had forced Bulgarian EDCs to

stop connecting RES-E producers to the grid (contrary to the law's mandate) (Kirov, 2012; Hiteva, 2013).

The 2008 Bulgarian Energy Strategy supported the Commission's proposal of a 16 percent RES target by 2020, noting that Bulgaria 'is expected to provide the lowest additional increase (6.6 percent) as compared to the other member states' (Bulgarian Government, 2008a, p. 7). However, this was still an ambitious task, with varying degrees of complexity depending on the speed and type of RES to be introduced into the energy mix. Despite zero installations for solar PV until 2009 in Bulgaria, the Strategy recognized the 'biggest technical potential' was related to this technology (Bulgarian Government 2008a, p. 8), but anticipated that only hydro, wind and biomass would contribute significantly to new RES by 2020 (Bulgarian Government 2008a, p. 70).

The RAESBA was then amended in late 2008, extending geothermal and solar energy contracts from 12 to 25 years; and wind contracts from 12 to 15 years (Bulgarian Government, 2008c), to provide additional incentives. These further strengthened the domestic opportunity structure for RES-E producers. Support levels increased, and obligatory purchase of electricity was introduced (Bulgarian Government, 2008c). This amendment proved successful in stimulating accelerated development of the RES-E sector in Bulgaria. The lengthened contract terms were combined with guaranteed purchase of all produced renewable electricity and connection of newly installed renewable capacity to the national grid free of charge for generators, but at the expense of the EDCs and transmission companies (EREC, 2009).

Using Knill and Lehmkuhl's (1999) typology of Europeanization mechanisms, apart from the prescription of concrete institutional and governance models, such as the introduction of independent electricity regulator SEWRC, the unbundling of the electricity transmission and distribution infrastructure and the separation of the electricity system

operator (ESO) and NEK, the EU RES directives also went a long way to alter Bulgaria's opportunity structure. This was achieved through market-making (as per Bulmer and Radaelli 2004, p. 6), with the RAESBA allowing the entrance of RES into national markets by providing zero cost connection to the grid for RES producers. These top-down Europeanization mechanisms led to a change in the distribution of resources between actors, with NEK and EDCs now responsible for connecting ever growing RES capacities to the national grid.

Between 2007 and 2011 there was no cap or adequate oversight of how many renewable projects were being planned and built. There was a six-fold increase in onshore wind power between 2008 and 2010 and an exponential growth in the solar PV market, from 1.3ktoe to 117ktoe between 2010 and 2013 (Eurostat, 2015b). It is important to note that this was not planned or predicted growth, and was directly linked to EU pressures. The limited engagement of the Bulgarian government with effective long-term strategic planning, coupled with rapidly decreasing PV costs and financial and technical (grid) capacity provided an obstacle. The infrastructure of the Bulgarian electricity network required significant investment (Hiteva, 2013; Ganev, 2009). The cost of connecting these new RES installations to the grid threatened the EDCs and NEK's financial stability. Between 2009 and 2011 there were significant delays in approving connections to the national grid, while some applications (predominantly for new wind and solar capacity over 5 MW) were stopped altogether without official explanation (Hiteva, 2013).

Powerful and embedded energy sector actors - the EDCs and NEK - resisted the top-down Europeanization of the Bulgarian RES sector by refusing to implement the national policy. The resistance to EU driven domestic legislation had longer term effects on national RES policy. To a large extent this could be accredited to the failure of EU RES policy to trigger changes in the beliefs of the domestic actors, an important mechanism of top-down

Europeanization identified by Knill and Lehmkuhl (1999). Many of the RES developers and lobbyists for RES in Bulgaria were not domestic actors but international companies and investors who faced many barriers to influencing changes in the beliefs and routines of domestic actors. Furthermore, the electricity market structure allowed NEK's refusal to implement national law and connect new RES-E capacities to remain hidden to the public and investors, as EDCs were the official interface for applications for connection and their refusals. In fact, EDCs could not accept connection applications that were refused by NEK. Entrenched institutional veto points - NEK, ESO and the national regulator SEWRC – limited the extent of more fundamental transition in the energy sector.

12.3.3 A period of resistance to top-down and nascent bottom-up Europeanization (2011 to 2014)

Despite a degree of foot-dragging in the implementation of EU RES and climate change policies in the previous period, such as partial transposition of EU legislation and failure to operationalize key tools like national registers for carbon emission certificates, occasions of resistance to top-down Europeanization became more prolific after 2011, with the introduction of a series of retroactive measures in RES-E. Contrary to Börzel's conceptualization of bottom-up Europeanization (2002), the limits to Bulgaria's influence were shaped firstly by its limited action capacities, rather than policy preferences. Partly because of political instability, policy preferences have not been well defined in connection to renewable energy and climate change policies.

The 2011 Energy Strategy recognized the 'unduly high public costs' of 'existing promotion mechanisms for the development of RES', but also that 'over-performance of the target will enable the country to sell the surplus...[through] statistical transfers to other EU states' (Bulgarian Government, 2011, p. 20). However, reduced demand from traditional

export markets like Greece, Macedonia and Turkey because of the economic crisis (Iwanov and Arndt, 2013) and Greece's predicted 2020 RES-E target surplus weakened the RES-E export market. In the same month, the Bulgarian Parliament adopted the Energy from Renewable Sources Act (ERSA), which replaced the 2008 RAESBA. The rationale of the Bulgarian Government was to remedy the fact that 'too many investors have expressed intentions to construct wind and solar farms which go beyond the capacity of the energy system' (NREAP, 2011, p. 18).

Thus ERSA introduced a set of retroactive measures reducing the duration of purchase contracts from 25 years to 20 years for geothermal and solar, and from 15 to 12 years for wind (Bulgarian Government, 2011, article 31). These retroactive measures constituted a form of direct resistance to EU RES-E objectives, and the process of top-down Europeanization. They were spurred on by the strong coalition between the regulator SEWRC, ESO, NEK and the Bulgarian Parliament, to protect the financial and political stability of NEK and the existing electricity regime. Although the retroactive measures prompted penalties and the official expression of concern by the EU, these were largely ignored. Lobbying attempts on behalf of the wind and solar industry sought support from the EU, but fell on deaf ears with the Bulgarian government and society (Hiteva, 2013). The period of favourable market conditions for RES-E prompted by top-down Europeanization was too brief to build a strong coalition in support of RES.

However, the retroactive measures proved insufficient to prevent continued exponential growth in the solar PV market in the immediate short term. The government had failed to foresee this. Objectives set in 2011 for solar PV installations by 2020 had by 2012 been met and tripled (NREAP, 2011; Eurostat, 2015b). With the introduction of ESRA and its subsequent revisions the Bulgarian government was gradually becoming more experienced and confident in developing its national interests vis-à-vis those of the EU RES and climate

change agenda. Despite pressure from the EU - for example the visit of the European Commissioner for Climate Action - the Bulgarian government continued to adjust its national legislation (with more than five amendments in three years) to bridge the gap between EU targets and the capacity of national electricity infrastructure (Interviews 2 and 3, 2011). Domestic policy resistance had increased in the period 2011-2012, and the effects of this change were soon clear.

These changes contributed to a situation of 'high investment insecurity' (Ecofys, 2013, pp. 108-109). Changes in national legislation removed the guarantee of the price formation and required a connection fee in advance of construction, which increased the associated risks for renewable projects. This led to the stranding of installed renewable capacity and reduced investment in wind and solar projects.

Despite this resistance, the growth of solar PV which began only in 2010, and wind which began in 2006 led to Bulgaria reaching its EU 2020 target of 16 percent RES-E by 2012, achieving 19 percent by 2013 (Eurostat, 2015a). Bulgaria's RES-E legal obligations were fulfilled eight years ahead of the government's planned trajectory for RES-E installations set out just a year before, in 2011 (NREAP, 2011). The main catalyst for the initial growth was top down Europeanization, in the form of the mandatory EU target. This directly led to changes to the 2007 Energy law, and the 2008 amendments producing an extensive set of incentives for RES development. Combined with rapidly decreasing technology costs for solar PV, these resulted in an exponential growth. The cost of solar PV declined by over 50 percent between 2010 and May 2012 (Parsons Brinckerhoff, 2012). However, despite the success in achieving the RES-E target, public support for wind and solar power started to decrease as it was associated with higher electricity prices, and government incentives were reduced through a series of retroactive measures and actions.

Policy resistance also took the form of reduction in network prices paid for existing renewable projects in June 2012 by 34-54 percent for PV and 22-23 percent for wind (BGWEA, 2013b). The regulator announced that there was no grid capacity to connect new RES plants, initially until June 2013, which was then extended until July 2014 (BGWEA, 2013a), and then 2015 (SEWRC, 2015). At the end of March 2014, the ESO announced that limits in technical capacity mean that ‘the maximum working power will be limited with 60 percent (for RES-E producers) connected to the transmission and distribution grids’ (BGWEA, 2014: 2). Meanwhile, since 2011 NEK increasingly curtailed renewable generation quoting concerns over the reliable operation of the grid and/or the security of supply (BGWEA, 2013a; Capital, 2013).

The regulator also introduced a temporary tax upon renewable energy producers that came into force in September 2012, a grid access fee that was declared illegal in June 2013 (Jirous, 2013). A similar tax on revenues was also introduced in February 2014, and infringement procedures were launched against the Bulgarian government for failure to fully transpose the Renewable Energy Directive (RED, 2009) by December 2010 (COM, 2014, pp. 34-36).

The Bulgarian government struggled to stabilize the regulatory regime for RES-E, and after the ERSA was introduced in 2011 there were several bills to amend and supplement it, in order to deal with the large number of preliminary and final grid-connection contracts. Retroactive measures are considered one of the worst signals for renewable investors, with the potential to stifle future market development (Hiteva, 2013). By 2013, Bulgaria was rated as one of the least attractive countries in the EU for investment in RES (Ernst and Young 2014, p. 16). Although EU RES directives prompted the introduction of national legislation which successfully incentivized the introduction of new capacities of wind and solar power in Bulgaria, they were swiftly reversed once the RES target was achieved showing a restrained

commitment by the government for more growth of the domestic RES sector and for adhering to more than minimum EU objectives.

The hydro power sector in Bulgaria between 2000 and 2013 was considerably more stable, although it also underwent a change. Hydro power has been intensively developed in the country in the past 50-60 years. Large-scale hydro power is still the main source of renewable electricity in Bulgaria (EREC, 2009) and large hydro power plants (HPPs) retained their role as the main balance and regulating capacities in the national electricity system (Hristozov, 2012). There are still plans and projects of new large HPPs, however, since mid-2011 new regulatory conditions with more unfavourable prices were introduced (NEK, 2011) decreasing the predicted installation of capacity (SEWRC, 2013). Since 2012, there has also been resistance to small hydro power plants, predominantly through local, regional and international organizations such as World Wide Fund for Nature (WWF), on environment grounds (Maltzeva, 2013).

Overall, EU legislation did not have a significant (either negative or positive) impact on the rates of installation of hydro power in the country. While the parastatal NEK justified a handful of larger hydro projects plans with the need to balance the introduction of more intermittent RES like wind and solar, the excess of RES-E since 2013 suggests that this reasoning lacks credibility.

The impact of the economic crisis from 2007 onward, rapidly increasing RES-E support costs and a failure to increase regulated electricity prices had a significant effect on the RES sector in Bulgaria. Braun argues that the general position of Bulgaria during negotiations of the 2030 Climate and Energy Package was of cynicism within the government about the potential for the country to benefit from ecological modernization (Braun, 2014, p. 143). In 2014, the government stated that it:

'generally supports efforts to reach an agreement on the new climate and energy policy framework (...). In the course of negotiations, strict respect for national circumstances and capabilities is essential, particularly in relation to low income Member States. Reaching an agreement on the new, more ambitious goals of the framework should not put at risk the economic development of Member States or result in the European economy becoming less competitive' (Bulgarian Government, 2014, emphasis added).

This statement reflects a lack of ambition for developing the national RES–E sector beyond EU requirements and a failure for the spirit of the EU RES directives to 'take' in Bulgaria. Bulgaria's lack of enthusiasm for the 2030 Climate and Energy Package is also due to the fact that the country did not benefit as much as expected from the selling of carbon emission credits, due to long delays with accreditation and developing a national registry for projects, while some constructed projects were stopped because the EU trading scheme provides a smaller allocation of credits than that of mechanisms under the Kyoto Protocol (Capital, 2009).

12.4 Biofuels in Bulgaria

Bulgaria also has substantial potential for generating power from biofuels, including from biomass. About 90 percent of Bulgaria's land is arable, agricultural or forested land (Todorova 2011, p. 3). The country also has a history of biodiesel production, since 2001 (CRES, 2008). A Commission report in 2003 highlighted Bulgaria's potential to produce biofuels made from sugar beet and wheat (bioethanol) and sunflower (biodiesel) (COM, 2003, p. 11). However, the 2003 Energy Law made no reference to biofuels or transport (Bulgarian Government, 2003), and RES-T was calculated at 0 percent in 2005 (Bulgarian Government,

2011, p. 11), and 0.4 percent in the same year by Eurostat (Eurostat, 2015b).

Top-down Europeanization in the case of biofuels was superficial. The 2007 Law on Renewable and Alternative Energy Sources and Biofuels made frequent reference to biofuels and transport, though the mechanisms for achieving the target were vague, and largely restricted to the setting of national indicative targets (Bulgarian Government, 2007). The adoption of concrete institutional and governance models prescribed by the EU was limited to the introduction of the 2007 National Long-term Programme for the Promotion of the Use of Biofuels for Transport 2008-2020, which set a national indicative target for 2010 of a 5.75 percent share of biofuels in the consumption of petrol and diesel fuels in the transport sector, following EU Directive 2003/30/EC (Bulgarian Government, 2011, p. 10). This was a direct response to EU pressure associated with accession conditionality. Its impact was though limited, and Kondili and Kaldellis argue that before 2007 there was little progress on using biofuels in transport because of ‘the serious deficit of infrastructure and mentality in general for biofuel promotion (tests, standards, investments, etc.) as well as the lack of clear government policy and any relevant legislation make the development of the domestic market difficult’ (2007, 2148).

The national target and long-term programme failed to significantly alter the domestic opportunity structure for biofuels and promote changes in the beliefs and expectations of domestic actors like the Ministry of Transport, the Ministry of Economy, Energy and Tourism, the Ministry of Agriculture and RES producers. The majority of biofuel plants until 2007 were producing ethanol for the alcohol industry rather than bioethanol for transport (Capital, 2012). There had been a reasonably comprehensive downloading of EU biofuels policy objectives and legislation on paper but not in practice, as legislation was not complemented with the mechanisms at the national level to implement EU objectives until 2012.

There was no detailed programme in the 2008 Bulgarian Energy Strategy draft for how the binding RES-T 10 percent target was to be achieved, apart from ‘doubling the quantity’ (Bulgarian Government, 2008, p. 66). The 2008 ‘National Long-Term Programme to Encourage the Use of Biomass 2008 -2020’ reiterated an indicative target of 5.75 percent for 2010 and 2 percent in 2008 (2008, 23). Yet Eurostat figures show that by 2008 the figure was only a quarter of that predicted, at 0.5 percent (Eurostat, 2015b).

There have been significant discrepancies in the reported RES-T in Bulgaria by the government. In 2008 the Bulgarian government reported that RES-T was 0 percent in 2005 (Bulgarian Government, 2008b). By 2010 this 2005 figure had increased to 1.12 percent (NREAP, 2010), and was estimated to reach 7.8 percent by 2020 (2010, 26). However, this was short of the EU mandatory target of 10 percent, and the government resubmitted their action plan (NREAP) in 2011. This resubmission claimed that the 2020 target would be met, and exceeded, though also reported 2005 figure had been miscalculated and was actually 0.1 percent not 1.12 percent (2011, 28). This indicates the extent of the lack of capability of the Bulgarian government in the translation of EU directives into national implementation on one hand, and monitoring and reporting on the other.

RES-T reached 1 percent in 2010, a considerable underachievement relative to the 5.75 percent indicative target (Bulgarian Government, 2011, p. 10). In 2012 the figure had dropped to 0.3 percent (Eurostat, 2015b),² with the government facing a significant challenge to reach the indicative target of 8 percent by 2015, and mandatory target of 10 percent by 2020 (Bulgarian Government, 2008b, p. 28). Bulgaria’s RES-T progress had been extremely limited, and this was acknowledged by the 2011 Energy Strategy (Bulgarian Government, 2011, p. 21). This resistance can be accredited to the failure to transpose EU legislation, the lack of accredited laboratories for monitoring and control of the quality and contents of biofuel mixes, and a technology lapse in the implementation of investment programmes by

biofuel producers and importers. The Bulgarian government adopted several measures to remedy the situation, including the introduction of a requirement of transport fuel producers to add biofuel to their products in the 2011 Renewables Act (ERSA), and enforcing administrative measures and increased financial sanctions for non-compliance (Zhivkova, 2010).

On paper ERSA paved the way for a dramatic improvement in RES-T in the country, however the requirement for transport fuel producers to add biofuel to their products was delayed until 2012 to allow time for industry adjustment (Bulgarian Government, 2013c, p. 32).³ Once this postponement expired, in June 2012, petrol engines required 2 percent bioethanol, and this gradually crept up to 7 percent in the first quarter of 2015 (Bulgarian Government, 2013c, pp. 31-32). As a direct result of bringing national legislation into compliance with the EU Directive, RES-T figures demonstrated a dramatic turnaround, rising from 0.3 percent in 2012 (the second lowest in the EU) to 5.6 percent in 2013, ahead of the EU average (Eurostat, 2015c). There was a related significant growth in biogasoline and biodiesel (Eurostat, 2015b), prompted by the transposition of EU legislation, a further increase in administrative and financial sanctions for importers, distributors and suppliers; and the resolution of EU imposed restrictions on the production of local plants.

The biofuels sector is also emerging as a site for bottom-up and horizontal Europeanization in Bulgaria, through the activities of a new group of actors in the country – energy agencies. The development of small and medium size biofuel projects at local level has been steadily increasing since 2010. This is largely due to the introduction of individual targets for municipalities for the development of RES projects, a requirement for the development of short-term and long term plans for sustainable energy production, and the rapid growth of local energy agencies in the country since the mid-2000s (Hiteva, 2013; Interview 4, 2011). The objective of energy agencies is to facilitate energy savings and carbon

dioxide emissions reductions at local and regional level, and often they are almost entirely or substantially funded through EU programmes. They provide institutional support to local authorities in meeting their individual targets, including national energy efficiency targets, Covenant of Mayors' targets, and any local sustainability and climate change objectives they may have (Interview 4, 2011).

Most importantly, energy agencies are able to tailor their work closely to the needs of a specific municipality and/or region. Most energy agencies in Bulgaria are directly plugged into EU RES agendas, which are disseminated horizontally through municipal networks like the Covenant of Mayors, because they rely on EU funding for their existence and project work (Davis, 2005). Many energy agencies in Bulgaria have recently focused specifically on the domestic and regional development of biomass. For example, through setting up an EU RES league programme, which mimics a football league with two divisions: one for biomass and one for PV projects, where municipalities compete among themselves on the basis of most installed capacity per capita. Municipalities on top of the national league table go on to compete with municipalities from other member states. The Association of Bulgarian Energy Agencies (ABEA) has started another EU-led initiative called BioRegions, which created for a first time, a biomass action plan in Europe (Interview 4, 2011).

Energy agencies have been successful in drumming up support for biofuel projects only locally because they still lack support from, and connection with, a wider range of actors in the energy sector, such as government agencies and the regulator. However, energy agencies do play a key role in processes of horizontal Europeanization (cross-loading) through being embedded in networks of learning, geared towards sharing information and best practices between municipalities, energy agencies and local biofuel producers. This allows local authorities to gain access to and learn directly from existing policies in other EU member states. Energy agencies are extremely active in interacting with EU institutions

through a ‘systematic dialogue’ and an ‘enhanced’ opportunity to express their views via European and national associations of regional and local authorities (Carmichael, 2005; Heinelt and Niederhafner, 2008). Furthermore, some energy agencies like the Plovdiv Energy Agency are recognized as official partners of the European Commission and as such can directly feed back to the Commission. The value of local energy agencies for the EU and its institutions comes from their roles as knowledge holders, implementation ‘watchdogs’ and legitimacy vehicles for EU policy (Heinelt and Niederhafner, 2008, p. 183). However, measuring the extent of impact that these energy agencies have had through the process of bottom-up Europeanization requires further research.

12.5 Conclusion

It is clear from the case study of Bulgaria that top-down Europeanization was a highly influential process in the development of the wind, solar and biofuels sectors in the country. There are however key differences between the RES-E and RES-T sectors. The EU RES directives led to the introduction of two new types of RES in the country: wind and solar power. However, from July 2013 the national regulator SEWRC permitted only the connection of small-scale wind and solar installations (SEWRC, 2013) and since February 2015 there is an end to RES-E new installation support (SEWRC, 2015).

EU pressure led to a dramatic growth in the sector until approximately 2013, and on the surface this appears to be a significant success story. However, with RES-E targets having now been exceeded, financial obstacles and technical limitation of the national grid have undermined short-term RES-E growth. Fluctuating FITs and inconsistency regarding support for different RES technologies have created a volatile investment climate. Instead of acting as a catalyst for the growth of a sustainable RES-E industry, and contributing to an ongoing

transition towards a decarbonized energy sector, it appears as though the prescription of concrete institutional and governance models by the EU led to an adherence to the minimum requirements of EU legislation. This did in the short term alter the opportunity structure to an extent, incentivizing RES-E actors who could take advantage of a temporarily attractive investment climate. However, there is little evidence to yet suggest a more substantial change in the beliefs and expectations of key domestic actors who have operated as institutional veto points, in part because of a lack of technical and financial capacity to implement requisite changes in the energy sector.

There is then a high level of uncertainty regarding the future of the RES-E industry in Bulgaria, and whilst this has not manifested itself in an attempt to actively shape or resist renewable energy policy, there is a passive resistance to developing RES-E beyond the minimum required. Since EU accession, Bulgarian governments have struggled to synchronize the Bulgarian legislation and governance processes with those of the EU; to learn how to identify the national position and defend it at EU level; to learn how to implement EU legislation; and balance an EU-led agenda and national interests (Hiteva, 2013; Hiteva and Maltby, 2014). Key to the research questions here, there has been little evidence to suggest that since EU accession in 2007 Bulgaria has shaped, or attempted to shape EU policy. As a small newcomer to the EU, Bulgaria is an EU energy policy taker rather than shaper, and has been slow to contribute to the development of EU energy legislation in line with its national interests.

As seen from the discussion, the development of the RES sector has been affected by lack of administrative capacity to govern a transition towards a larger share of RES in Bulgaria. This is illustrated as much by the lack of coordinated strategy for the implementation of the EU RES Directives throughout the whole RES supply chain, as the frequent number of changes in national RES legislation - which translates into lack of

regulatory stability. The reasons for the absence of administrative capacity are manifold and encompass structural issues related to the state capture, staff circulation and understaffed regulator which are discussed in more detail elsewhere (see Hiteva and Maltby, 2014 for more details).

Despite the role of technology price decreases, particularly solar PV, without the implementation of national FITs and other incentives that followed the transposition of EU legislation, it is unlikely that Bulgaria would have experienced the rapid growth since 2009 of its RES-E sector. It is thus clear that the motivating logic for national legislation and regulatory framework in RES-E is tied inextricably to EU policy. Yet, there was a failure at the national level to put in place a regulatory framework robust and flexible enough to deal with the challenges of rapid growth in the sector. There was a comprehensive downloading of EU renewable regulations in terms of their transposition into national law. However, provisions were not put in place to adjust quickly to decreasing technology costs, combined with insufficiently developed infrastructure and financial barriers this has led to stagnation.

A recent increase in the emphasis on biofuels support was necessary but overdue, and again appears to be a direct result of EU legislation. A mechanism of top-down Europeanization led to the development of national legislation that has been implemented since 2012. Whilst the EU directive was transposed later, by 2013 Bulgaria was one of the leading member states with regards to RES-T. A nascent process of bottom-up and horizontal Europeanization in Bulgaria has also emerged in the case of RES-T, through the work of energy agencies and municipalities, sometimes leading to municipalities committing to higher targets than their individual targets set by the government. In 2016 this trend was limited to a handful of municipalities and therefore unlikely to lead to policy change towards higher targets for biofuels than those introduced by the EU.

Notes

¹ Hereafter referred to as the Commission.

² Though it is important to note that 'the renewable energy consumption shown in the transport sector only includes electricity, because the legislation laying down the requirements for compliance with the sustainability criteria was adopted later. If the consumption of biofuels (biodiesel and bioethanol) had been taken into account, the share of renewable energy in the gross final energy consumption achieved in 2012 would have been approximately 1 % higher' (Bulgarian Government, 2013: 8).

³ 'Due to the rise in the prices of petroleum-derived fuels for the transport sector in 2011 and the need to mitigate the negative impact of this development on citizens' (Bulgarian Government, 2013c, p. 32).

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13. RES in the Hood and the shrinking Mediterranean Solar Plan

Gonzalo Escribano

13.1 Introduction

At the beginning of the 21st century, renewable energy sources (RES) became one of the hallmarks of the European Union (EU)'s energy policy. Concern about pollution and climate change since the 1980s raised public awareness and placed environmental objectives high on the European political agenda (Morata and Solorio, 2012). The promotion of RES, together with other low carbon technologies (nuclear, and carbon capture and storage) and energy efficiency measures, emerged as one of the energy policy responses to address the above mentioned environmental preferences. The European Commission's initial emphasis on RES was supported by several member states and their industries, helping to situate the EU as a world pioneer in the sector. The European RES industry positioned itself on the technological forefront, European grid and utilities operators are among the most experienced in integrating RES in the energy system, and member states' regulatory frameworks usually served as international benchmarks. All these elements resulted in an increasing contribution from RES to the EU's energy mix and the setting of more ambitious targets at the European level.

The EU has also attempted to promote RES abroad. However, apart from some country exceptions, the contribution of RES has remained marginal in the European neighbourhood, and its benefits very unevenly distributed. Even biofuel, a commoditised RES lacks a truly functioning international market (see Chapter 14 by Di Lucia). Furthermore, the contribution of RES to economic and human development in those countries remains largely unexplored. European investments on RES have been concentrated in developed or emerging markets (mainly the EU itself and the United States [US]). The EU's RES imports are mostly

limited to biofuels and electricity from RES (RES-E) from Norway and, occasionally, from Morocco. This static and almost closed picture started to change at the turn of the century with the advent of technological development. New transmission and solar technologies inspired the vision for an integrated Euro-Mediterranean RES market, which would allow countries in the southern shore of the Mediterranean to export RES-E. Industrial initiatives such as Desertec and the European-led Mediterranean Solar Plan (MSP) tried to offer an industrial, economic and institutional foundation. Finally, directive 2009/28 on RES explicitly contemplates RES-E imports from third countries.¹ Both pieces of the EU's energy acquis constitute a clear strategy of outward Europeanization differentiated for the Mediterranean and for the RES sector (Escribano, 2011a).

Then the financial crisis came, biasing the EU's energy trinity of sustainability, security and competitiveness towards the latter. RES support schemes have been reduced, and the EU risks becoming a pioneer unable to exert leadership at the expense of newcomers like the US or China. The perception that RES is too much an energy soft power when compared with the hard narrative of US unconventional resources has decreased the appeal of RES in the European neighbourhood. To paraphrase Robert Kagan, fossil fuels are from Mars while RES come from Venus (Escribano, 2013). And the appeal of the EU's renewable energy model (if such a model exists) in its vicinity has also been shrinking quite fast. The Desertec Initiative has been abandoned, and the MSP was blocked at the end of 2013 by the opposition of Spain on the grounds of a lack of interconnections with France and the harsh realities stemming from the radical reform of the Spanish RES-E sector (see Chapter 8 by Solorio and Fernandez).

This chapter analyses two interlinked energy policy instruments put forward by the EU to promote RES-E in its neighbourhood, directive 2009/28 and the MSP, their impact on economic development in Mediterranean Partner Countries (MPCs), and how RES-E imports affect the EU's energy security. Section 13.2 builds upon previous research using outward

Europeanization as a framework for analysis of RES-E promotion in the European Neighbourhood. Section 13.3 offers a brief overview of the MSP and directive 2009/28 as examples of outward Europeanization in RES-E. Section 13.4 is devoted to the weaknesses of the current MSP approach as a driver for economic development in MPCs, briefly discussing under which conditions its developmental impact would be maximised. In this regard, it addresses gaps in outward Europeanization such as a lack of focus on the domestic conditions, unclear impact on local political economy (winners and losers) and, most importantly, the lack of inclusiveness regarding expectations of third countries (considering almost exclusively governmental and elite preferences). Then, the chapter shows that successful outward Europeanization facilitating international RES-E flows would increase energy security in both MPCs and in the EU. The last section concludes with some final remarks on the need to revamp the MSP to fit it to the new economic, political and regulatory realities that have emerged since its inception, pointing to some key elements of a sustainable ecosystem for outward Europeanization of RES-E in the Mediterranean.

13.2 Are RES from Venus?

The European Commission seems to have found a strategy to hedge markets and geopolitics through the Europeanization of energy corridors transporting energy towards the EU. The distinction between outward and inward Europeanization is very clear in the energy domain: inward Europeanization is the classical process by which EU member states achieve energy integration (see Chapter 1 by Jörgens and Solorio and Chapter 2 by Solorio and Bocquillon), while outward Europeanization refers to promoting norms conducive to, let us say, RES-E promotion in the neighbourhood (Escribano, 2011a,b). The idea is to extend the EU's energy acquis to its neighbouring countries, in order to achieve a pan-European energy community, which would include MPCs. The European Commission's 2006 Green Paper explicitly

proposed an area of common regulation in the EU and its vicinity, reinforcing provisions aimed at expanding the market in the energy sector via agreements with third countries (COM, 2006). The document "An Energy Policy for Europe" highlighted the importance of creating strategic energy partnerships with producing countries, which should be based on the EU's energy regulations and policies (COM, 2007).

The third legislative energy package's provisions concerning the unbundling of production, transport and distribution also include third producer countries. In principle, the EU offered third party access to third countries' companies on a reciprocal basis. Until recently, the reciprocity clause, dubbed 'Gazprom clause' (which in the Mediterranean could be termed 'Sonatrach clause' after the Algerian national oil and gas company), stated that a foreign energy company can only buy energy assets in an EU country when it offers the same possibility to EU companies for acquiring such assets at home. The relaxation of the reciprocity clause within the EU in the third legislative package has also led to its relaxation concerning third countries. In the heated discussions that finally led to the approval of the third legislative package, Germany strongly pushed for a more flexible reciprocity clause, which allows for a better management of its close energy relations with Russia (see Chapter 3 by Vogelpohl et al.). The final clause was relaxed in the sense that instead of ownership unbundling (which was no longer obliged by EU reciprocity provisions) a political bilateral agreement between a member state and a non-EU country would suffice to authorise a non-EU energy company, like Gazprom or Sonatrach, acquiring transmission or distribution assets in the EU (Escribano, 2010).

The outward Europeanization strategy was even clearer regarding the inception of the Energy Community Treaty (ECT) for South-East Europe. The treaty consists of applying EU conventions to the Balkan region and coordinating interconnections (IEA, 2008). The energy security component aims mostly to secure the potential energy corridor coming from Russia, Central Asia and the Middle East, reaching the eastern Mediterranean through Turkey and

then heading towards European markets via the Balkans. The European Commission is considering extending the ECT to the southern rim of the Mediterranean, in order to secure a normative and physical Mediterranean Energy Ring that would allow the integration of Euro-Mediterranean energy systems.

The outward Europeanization strategy of exporting EU energy regulations to MPCs, as a means both to modernise the MPCs energy sector and secure energy supplies, is however plagued with difficulties. Its most obvious limitation is that it is difficult to Europeanize MPC's energy markets when inward Europeanization or integration within the EU itself is only slowly progressing (Escribano et al., 2012). The clearer example is sometimes that it seems easier to the European Commission to propose a Transcaspian pipeline towards Turkmenistan than to build electricity interconnections across the Pyrenees.

Yet interconnections are the back bone of RES-E promotion within the EU, because only a well interconnected energy market can profit from the scale and comparative advantages of European RES resources. Physical inward Europeanization is needed to attain the modest 27 percent target for 2030, set in the climate and energy package by the European Council meeting of 23-24 October 2014. But physical inward Europeanization is even more necessary to reach the more ambitious targets of the EU's 2050 Roadmap, which entails almost full decarbonisation of the electricity sector. However, the Iberian push to set a 15 percent interconnection target for 2030 was not successful, and there are few hopes that the 10 percent interconnection target for 2020 will be reached from the exiguous current 3 percent interconnection rate between Spain and France (see Chapter 8 by Solorio and Fernandez and Chapter 9 by Bocquillon and Evrard).

The challenge to integrate RES, particularly RES-E, into the Euro-Mediterranean energy space seems to focus only in the narrow, normative outward Europeanization path so beloved to the EU in its relations with its neighbours (Buchan, 2011; Escribano, 2010). The idea is that each neighbour would get differentiated access to the EU's RES market according

to its compliance with EU's norms. This market-access incentive would anchor RES related policies and promote its deployment in the European neighbourhood. In the following, this chapter will test the outward Europeanization approach with the case of the MSP.

13.3 Europeanizing RES-E in the Mediterranean: directive 2009/28 and the MSP

Transnational RES-E deployment is a complex issue because it requires support schemes that are costly and difficult to implement both technically and politically. Member states only support nationally produced RES-E, and one of the goals of directive 2009/28 is the facilitation of cross-border RES-E support without necessarily affecting national support systems. In order to do so, it introduces cooperation mechanisms among member states. As already explained in Chapter 2 of this volume, the flexibility measures contemplated by the directive include statistical transfers, joint projects and also joint support mechanisms. Statistical transfers refer to the exchange of green certificates. For instance, the green certificates generated by solar energy in Southern Europe (if they exceed the respective national objectives) can be accounted for in the objectives of a northern EU member state.

For RES-E imported from third countries, the conditions are not so flexible. First, they do not include statistical transfers: only physical electricity transfers can be accounted for in member states' RES targets. A member state can implement joint projects with third countries, including in its national objectives the RES-E imported from the third country and consumed within the EU. In the absence of existing (but projected) operative interconnections, the member state can include in its national objectives the amount of RES-E that has been agreed to that end with the third country until the needed infrastructures are in place. There is no obstacle to implement joint support systems for joint projects with third countries. The only limitation, which also applies to intra-EU projects, is that in order to be computed in the national objectives, the imported RES-E cannot benefit from support

schemes in the third country, with the significant exception of investment support for the construction of installations.

In fact, even if the directive excludes statistical transfers with third countries, de facto it offers them the opportunity to include statistical transfers by joining the ECT. As the directive clearly states, the contracting parties of the ECT can benefit from the same flexibility measures as EU member states, if it is so decided. This is an open possibility for MPCs to enter the club of statistical transfers, widening the opportunities of RES-E deployment in the region to those countries Europeanizing their energy norms. Few Mediterranean countries outside Europe are nowadays ready to adhere to the ECT, perhaps with the exceptions of Turkey, Israel and Morocco.

Joining the ECT implies adoption of the EU energy acquis, a difficult move in a region characterized by lack of competition and state-owned energy companies, some of which have significant hydrocarbon reserves, for example in Algeria, Libya or Egypt. In this regard, the functionalist implications of the ECT in Southwest Europe are more limited for North African countries, which cannot be compared to the Balkans or Turkey (Renner, 2009). However, convergence towards the RES-related acquis could be easier compared with conventional energies, to the extent that it does not threaten significant vested interests and is more prone to institutional innovation due to its incipient weight in energy systems.

In 2011, the European Commission (COM, 2011) issued a communication entitled ‘The EU Energy Policy: Engaging with Partners beyond Our Borders’. The communication is clearly an outward Europeanization strategy, including the exchange of information among member states on external energy policy. It also opened the possibility for the European Commission of negotiating mandates to build infrastructure networks with third countries, for example the Council mandate authorizing the European Commission to negotiate an agreement to establish a legal framework with Azerbaijan and Turkmenistan on a Transcaspian pipeline system. The European Commission noted that a similar approach could

be taken to establish a framework to provide legal security and political support to import RES-E from the southern Mediterranean. Both projects were also taken up among the priorities in external infrastructures.

The main proposal relevant to this chapter suggested the possibility of an ‘EU-Southern Mediterranean Energy Partnership’ initially focused on electricity and RES-E market development. In this regard, the European Commission recognized the need to improve the conditions offered for joint projects with third countries under article 9 of directive 2009/28. Thus, the European Commission assumed that the uncertainty surrounding the MSP did not do justice to what seemed the second major energy project outside Europe (with or without a formal mandate) after the southern energy corridor to Central Asia. Finally, another new feature was the integration of development cooperation policy and external energy policy intended to fight energy poverty and climate change through development cooperation in RES and energy efficiency.

Under directive 2009/28’s institutional design for RES-E flows with third countries, the MSP proposed a road map to catalyse investment, industrial development and regulatory innovation to foster RES-E deployment in the Southern neighbourhood. Its goal is to deploy 20 gigawatts (GW) of installed RES-E capacity in the Mediterranean region by 2020 along with the necessary transmission capacities and cross-border interconnections, as well as fostering energy efficiency measures. The 2008 Paris Declaration that gave birth to the Union for the Mediterranean (UfM) stated that ‘market development as well as research and development of all alternative sources of energy are [...] a major priority in efforts towards assuring sustainable development.’ Despite the precision about the MSP, the sense of the Declaration calls for the mobilization of all alternative energies, including wind.

Its inclusion in the UfM came out of the French-German bargaining that led to the Paris Declaration, but its origins can be traced back to the Trans-Mediterranean Renewable Energy Cooperation Network (TREC) – a partnership between the Club of Rome, the

Hamburg Climate Protection Foundation and the National Energy Research Centre of Jordan created in 2003. Together with the German Aerospace Centre (DLR), the TREC developed the Desertec project, a EU-Middle East and North Africa (MENA) initiative based upon thermo-solar energy (Carafa, 2011). With the support of the Greens and German industry, the German government supported the Desertec initiative in its 2007 Presidency of the EU. A few months later the Desertec (2008) White Book was presented at the European Parliament, and began to receive increasing support in Brussels. At that time, French President Nicolas Sarkozy was proposing his Mediterranean Union, facing strong opposition from Germany. Finally the Mediterranean Union was watered down to the UfM, which included the MSP as its flagship project but not all the institutional capabilities proposed by the French government. Instead it added six areas for UfM projects to the Euro-Mediterranean acquis: the MSP itself, transport corridors, water, small and medium-sized enterprises (SMEs) promotion, a Euro-Mediterranean College, and civil and (only recently) social affairs.

Tasked with the development of the projects, the UfM's Secretariat plays a central role in the institutional network. First, the delay in its operative constitution, and then the resignation of its Secretary Generals, has not allowed it thus far to stimulate the process. This was coupled with the financial crisis, which dried up financial markets and decreased enthusiasm for RES. The Arab Spring further distorted the institutional landscape and, more importantly, signalled the lack of adequacy of EU Mediterranean policy tools to deal with its consequences. The failure of the Desertec initiative and, finally, the Spanish opposition to the implementation of the MSP has led it to the brink of decline.²

Spain blocked the MSP Roadmap for two main reasons which illustrates the 'original sin' of RES-E's outward Europeanization: not practising at home what it preaches in its neighbourhood. First, the Spanish government complained that before building new interconnections with North Africa (Spain has two electricity interconnectors with Morocco and two gas pipelines with Algeria) the EU should work on attaining the ten percent

interconnection target for 2020 between France and Spain (in June 2015 barely three percent), which acts as a protectionist entry barrier for Spanish RES into France and the rest of Europe. Second, due to this, Spain's RES-E installed capacity was simply too big given the reduction of national energy demand prospects. Finally given the lack of a uniform and consistent RES-E support scheme across the EU financed at least partially by the European budget, RES costs remain too high for a Spanish economy suffering from the burden of high budget deficits and competitiveness erosion due to high electricity prices (See Chapter 8 by Solorio and Fernandez). This is even more the case if we talk of new RES-E imports without the possibility of exports attached.

13.4 RES-E promotion in the Mediterranean: a driver for the development of whom?

But aside from financial and institutional problems (governance of the MSP, the role of the European Commission and the UfM Secretariat, member states opposition, and decreased political tolerance to subsidise RES-E), the MSP has failed to provide a credible and recognisable framework mainly because it has not been able to take MPCs' preferences into account. These preferences consist of profiting from their structural comparative advantages (insolation or wind, abundant space and labour force) *and* building dynamic ones like industrial clusters, innovative regulation and technical skills. This section is devoted to the weaknesses of the current MSP approach as a driver for economic development in MPCs.

Directive 2009/28 provides the framework for the integration of RES-E into the Euro-Mediterranean region and the functioning of the MSP. However, the MSP should also reach the UfM's objectives inherited from the Barcelona process of achieving a shared space of peace and prosperity³. This was reiterated by the Joint Communication from the European Commission and the High Representative, stating the necessity for a 'Partnership for

democracy and prosperity with the Southern Mediterranean'⁴, which includes RES deployment as a channel for Euro-Mediterranean cooperation.

While the MSP has generated a lot of attention, little has been said on its human development impact for the European neighbourhood. A well-designed MSP should be conceived as a driver for economic development for MPCs in at least five aspects:

- 1 To provide part of the energy required by MPCs' economic growth.
- 2 To contribute to the supply of the modern energy services required by economic development.
- 3 Contributing to eradicate energy poverty.
- 4 To use solar and wind energy resources to generate new economic activities, new jobs and new incomes.
- 5 To provide technical cooperation, training and technology transfers in order for MPCs to be able to reap the benefits of RES deployment.

All these elements taken together constitute a consistent cooperation program for sustainable Euro-Mediterranean energy development. Energy development consists of increasing the provision and use of energy services, and is a key driver of economic development. Energy development also determines the manner in which energy is generated and used, and has a direct impact on sustainable development. It is important to highlight that such a comprehensive programme would constitute the first occasion in which energy is conceived as an instrument of economic development in the Mediterranean. The question is whether the MSP has the potential to become a driver for MPCs development or can instead be better considered as an EU-centric project aimed at achieving its own environmental objectives together with the promotion of European industries and engineering firms. The answer is that it depends upon the conditions under which RES deployment is implemented.

A study on the impact of RES deployment in Morocco can help to illustrate the complex policy choices involved in the process (de Arce et al., 2012). The general conclusion

is that RES-E deployment entails significant economic opportunities for Morocco in terms of gross domestic product (GDP) and employment. In the proposed scenarios, the figures for economic impact on GDP vary from 1.17 percent to 1.9 percent at the end of the period (2040), with employment figures for full-time equivalent direct and indirect impact on the economy between 267,000 and 482,000 jobs. It shows that policy decisions regarding exports and improving local capacities are crucial to profit as much as possible from the opportunities RES-E offers to Morocco. The best economic performance is attained with exports (be it virtual or physical) based upon improved local capacities.

The former results are similar to the ones obtained by other researchers. Mahía et al. (2014) show that the concentrated solar power (CSP) industry in Morocco is viable under certain conditions, principally the removal of policy-related barriers and increased legislative and administrative support. Without such measure, current installed CSP capacity in the region does not reach the critical level to become economically viable. Calzadilla et al. (2014) find that an integrated Euro-Mediterranean power system based on RES will be economically viable. However, the costs and benefits for both regions depend on the type of strategy adopted to finance power plants, the development of electricity costs for the different technologies and on international climate policy. Brand and Zingerle's (2011) simulations point out that optimizing RES-E goals can decrease overall energy system costs. Indeed, the opportunities for European companies have also been analysed in the economic literature (Vallentin and Viebahn, 2010).

All this points to the fact that in order to maximize economic gains MPCs need to participate more fully in the industrial dimension of the initiative. This means improving their absorption capacity at the industrial level, integrating the RES sector in a comprehensive industrial policy, upgrading infrastructures and regulation. For the EU, it is important to highlight the significance of supporting the country's absorption capacity through technical

cooperation programs, including activities such as training, twinning, scientific exchanges or networking, at every level related to RES deployment.

The Moroccan case clearly illustrates the case for approaching the MSP as a comprehensive sustainable development strategy. In designing regulatory, trading and financing schemes, the focus should be on MPCs development (Escribano and San Martín, 2012). If the benefits are not to be captured by EU companies and their MPC partners, several measures should be adopted. One of them is the focus on alleviating energy poverty in rural households, which has a positive impact on sustainability and human development. This calls for supporting individual decentralized photovoltaic (PV) systems, but also delivering modern energy services not necessarily related with RES (for instance Liquefied Petroleum Gas [LPG] and other modern fuels). Another prerequisite is supporting the training of Moroccan manpower to attract investments. However, training should not be exclusively provided for the purposes of maintenance, an activity which generates fewer jobs and added value. A meaningful participation in the construction and operation phases should be attained in the medium term. At the same time the EU should establish a long-term mechanism for promoting technology transfers and for enhancing local innovation capabilities. Without such measures, the developmental impact of introducing technologies such as CSP in countries like Morocco could be minimal.

Without such pre-requisites in mind, the whole discussion on the MSP risks deviating from its main objective. As a project included in the UfM, it should aim for the creation of a shared prosperity area in the Euro-Mediterranean region. This could only be achieved by accompanying MPCs reform efforts and strengthening their economic opportunities, like RES-E exports. Southern Mediterranean countries have shown their interest in RES but have also clearly pointed out the kind of European support they require: investments, training and technology transfers. Without the upgrading of MPC's institutions, human capital and rural energy poverty situation, the MSP risks getting reduced to an EU strategy to achieve its own

environmental objectives together with promoting European RES-E industries, energy companies and engineering firms. This scenario would add very little to the development within MPCs and therefore should neither be defended nor pursued as a development strategy. In principle it can be thought that this poses no problem for the EU, but this is a short-sighted vision insofar as it does not consider matching MPCs' preferences as a pre-requisite for the MSP to succeed.

13.5 RES-E and risk in the neighbourhood⁵

Together with economic difficulties, the fatigue of subsidies in the northern shore of the Mediterranean and a lack of fit with preferences in the southern shore, RES-E deployment in the Southern Neighbourhood has been hampered by misperceptions regarding energy security. Obviously, domestic RES deployment contributes to the improvement of energy security indicators related to geographic diversification and energy dependence, reducing vulnerability by diversifying energy sources and origins. However, this picture becomes less clear if RES are deployed beyond national boundaries, such as importing RES-E from North Africa (or Brazilian biofuels). International RES trade flows may affect the level of risk perceived by consumer countries compared to a system where RES are located within national borders. The EU's renewable energy policy aims at promoting both sustainability and energy security by substituting polluting and imported energy sources. This section argues that international RES-E flows do not necessarily harm European energy security, but rather the opposite.

The energy security implications of international RES-E flows can be analysed through the risk-cost framework of portfolio choice theory and its applications to energy.⁶ Assuming that electricity from solar origin generated in North Africa is added to the available energy

portfolio of the EU under the same risk conditions prevailing in the EU (same return/cost variability), this technology happens to yield higher returns in North Africa thanks to higher insolation levels. The efficient risk/cost frontier is then pushed upwards. Thus, the returns of the EU energy portfolio without including solar energy from North Africa are lower than in the case where the solar contribution is also considered. With the same set of preferences, the equilibrium shifts from a new portfolio with lower risk and cost levels. Depending on preferences regarding risk-aversion, the level of risk could be reduced further.

By contrast, if lowering the expected cost is accompanied by an increase in risk levels, the equilibrium will not achieve any improvement in the cost-risk trade-off. There is also a worst-case scenario in which the integration of non-EU RES resources into the EU energy system outpaces cost reduction with higher risk levels. This scenario leads to the issue of risks inherent to the nature of extra-EU RES corridors. A frequent claim is that transnational RES-E corridors suffer from the same geopolitical weaknesses that call for a reduction of imported fossil fuels in the national energy mix: being dependent upon foreign resources. However, this argument is not supported by careful economic analysis.

If access to international RES-E corridors implies further diversification of either geographical origins, energy sources, or both, the vulnerability of a country can actually decrease for a given energy dependence ratio (Aslani et al., 2012). With new resources and/or technologies from new exporting countries diversification increases and vulnerability decreases, even if the RES-E corridors came from the same countries from which conventional energies are already imported. For instance, importing solar electricity from Algeria into the EU does increase both diversification and dependence for both the EU (supply) and Algeria (demand). From a portfolio perspective, however, the diversification of sources does actually reduce vulnerability.

The nature of RES-E also limits their capacity to serve as a driver for power politics. RES used for electricity generation can neither be stored as easily nor as long as fossil fuels.

Furthermore, storage costs would definitively be much higher with current storage technologies. Therefore, a North African country could not interrupt its RES-E supply to the EU without simply wasting the resource, at least in the short-term. In the longer run, redirecting RES-E supply towards domestic markets would require transmission investments and, equally importantly, in addition to the loss of revenues, it would increase the cost of domestic electricity above politically acceptable levels in these countries.

Presumably, the main risk dimension to be addressed in the European Neighbourhood is regulatory risk, which ultimately embodies a wider array of socio-political and institutional risks (this regulatory risk is far from being confined to non-EU countries, as recently seen in Germany and Spain, see Chapter 3 by Vogelpohl et al. and Chapter 8 by Solorio and Fernandez). RES returns depend on regulatory schemes, and expected returns are linked to the credibility of these schemes in the long run. Without a credible and enforceable regulatory and institutional framework, a RES producing country can try to raise the tariffs at which it sells electricity to its clients. Nevertheless, as explained in the above paragraph, the alternatives would be limited by small market power.

However, the relevant point here is that the shift in the risk/cost efficient frontier can only occur in an institutional framework that delivers similar levels of regulatory risk and property rights to the levels prevailing in the importing region. In the specific case of Europe, this fact leads to the question of whether the energy security of the EU's RES corridors depends upon its Europeanization, as described in a previous section. This led to the regulatory challenges implied by the integration of North African RES (wind and solar) into the European electricity system.

Directive 2009/28 introduces the institutional framework to reduce regulatory risks, allowing the upward shift of the risk-cost efficient frontier to lower risk-cost combinations. However, to align regulatory risks with those risks prevailing in the EU, normative convergence towards the EU acquis in the field of RES-E would also be needed. Without

some degree of normative convergence, these joint projects and support mechanisms can fail to become operational. Issues such as the interoperability of electricity systems, support mechanism control, grid access, transparency in public procurement, authorisations and certifications, among many others, require a minimum degree of normative harmonisation, both at the regulatory and technical level. In short, these elements call for the Europeanization of Mediterranean energy corridors.

In fact, for the purpose of integrating RES-E in the EU energy space, a rigid and complete implementation of the EU energy acquis is most likely not required. On the contrary, the MSP illustrates the case of a more restricted, differentiated convergence over a relatively fringe issue (RES versus the more sensitive issue for energy actors and lobbyists – of conventional energies). This differentiation has a normative and a geographical dimension, with eventual joint projects and support schemes being implemented with different third countries under diverse agreed normative convergence conditions.

In this regard, the MSP can be understood as an essay to design an institutional model for the integration of non-EU RES corridors into the EU energy market (Escribano and San Martín, 2012). It is an institutional and market approach, but it can be projected geographically in a differentiated manner. If well designed, it could leave both producers and consumers better off in terms of combinations of costs and risk. The regulatory dimension of the RES corridor, which could be described as a normative corridor, is key to evaluate the contribution of RES to EU – and North African – energy security.

13.6 Conclusions: revamping the Mediterranean Solar Plan

The financial crisis has had a deep impact on the public appetite for RES-E support schemes. The EU risks paying the costs of being a pioneer of RES-E deployment without getting the benefits of becoming a leader, not only within Europe, but also in its neighbourhood. The

abandonment of the Desertec Initiative and the blocking of the MSP should be framed in the transformation of the European RES-E sector. This chapter has tried to show that the Europeanization of RES-E sector in the neighbourhood is not only about export norms, technology and market designs. MPC's preferences regarding energy development and capacity building should be taken more seriously for a sustainable cooperative framework to emerge.

Second, the chapter has argued that RES-E deployment in the neighbourhood can actually increase European energy security, provided that some levelling of regulatory risk happens through sustainable Europeanization. This regulatory aspect is key for a credible comeback of the MSP and eventual new RES projects in the European Neighbourhood. Its design may well have suffered from a premature obsolescence in regulatory terms. Support schemes like Feed-In Tariffs (FITs) and quotas with Tradable Green Certificates (TGCs), which have dominated RES regulatory mechanisms, are being increasingly challenged by the experience of emerging RES producers. For instance, Brazil, Chile and Mexico recur to auctions, trying to limit RES deployment to areas with high load factors and then closer to grid parity. While energy scholars have traditionally dismissed auctions, there are new elements showing that under an appropriate design they can open an innovative regulatory path in RES support (Del Río and Linares, 2014). In this regard, a revamping of the MSP that includes these new regulatory developments and its relation to the energy risk/cost trade-off seems urgent.

The chapter also suggests that the political and regulatory design of the MSP may already be obsolete. Both aspects call for a reconsideration of the characteristics of the Plan, which will be difficult to isolate from the shortcomings of the European internal electricity market. The European economic crisis will eventually end and energy demand will grow again. When that time comes, RES deployment in the neighbourhood may be seen as a viable way to diversify European energy corridors from Russian supplies. But perhaps it would be

too late to build a coherent and integrated Euro-Mediterranean RES ring. The reconsideration of the role of RES in the neighbourhood, and of the neighbourhood in the European energy system, requires a similar rethinking of the role of the MSP in paving the way to integrate neighbours' RES in the European energy market.

Finally, regarding the outward Europeanization analytical framework, the chapter has shown, first, that inward and outward processes are deeply entrenched, in term of norms and physical infrastructure, and that outward cannot be done without inward. It is quite disturbing to watch the EU promoting a Mediterranean electricity ring while being unable to complete its own internal network. RES can constitute a source of soft energy power, but inward and outward Europeanization should be pursued in a more consistent manner, at home and abroad. Second, the chapter shows that partners' preferences should be integrated more fully and in a more inclusive manner, namely regarding energy development and modernization. When approaching it from an industrial policy perspective, it should be clear that without technology transfers, delocalization of industrial processes and more local value-added creation, few spill-overs will be created. It is not by creating another subcommittee at the MSP UfM Extended Technical Committee with that title that the value chain is going to be altered. Lastly, normative outward Europeanization can close the risk gap that is ultimately inhibiting private investment in the RES-E sector across the Mediterranean neighbourhood. Through anchoring regulation and offering credible commitments, it could significantly improve the cost-risk trade-off, and therefore energy security for consumers and producers, north and south of the Mediterranean.

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Notes

1 Article 9, directive 2009/28/EC of 23 April 2009 on the promotion of the use of energy from renewable sources. Official Journal of the European Union, L 140/16.

2 14 On October 2014, after a meeting in Rome, Desertec announced that only three of its 19 existing shareholders had decided to stay: Saudi Arabia's ACWA Power, Germany's RWE and China's State Grid. This does not seem the kind (nor the number) of partners to promote outward Europeanization.

3 The Barcelona Process was launched by the EU in 1995 to compensate the Eastern enlargement process that started after the fall of the Berlin Wall. It was intended to build an area of shared peace and prosperity in three ways: economic cooperation and free trade, political dialogue, and cultural dialogue.

4 March 8, COM (2011) 200 final.

5 This section summarizes the arguments developed in Escribano et al. (2013), which contains a more detailed and formal approach. On this debate see also Komendantova et al. (2011 and 2012), Cooper and Sovacool (2013), Kost et al. (2011), Lilliestam and Ellenbeck (2011) and Smith Stegen (2012).

6 There is a vast literature which develops such an approach. See for instance Awerbuch and Berger (2003), Awerbuch et al. (2006), Bar-Lev and Katz (1976), Bazilian and Roques (2008), and Varian (1993).

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14. External governance and Europeanization beyond borders – EU biofuel policies in Mozambique

Lorenzo Di Lucia

14.1 Introduction

In the past decade the European Union (EU) has intensively promoted and regulated transport biofuels. Since 2003, following the adoption of the first biofuels directive, EU member states have adopted support policies which have resulted in a rapid expansion of the sector. Between 2004 and 2013 the share of biofuels in the EU motor fuel market grew from 0.7 percent (COM, 2007) to 4.7 percent (EurObserver, 2014). In spite of this expansion, the EU remained substantially self-sufficient until 2007 when imports started to surge (USDA, 2014). In 2012 they accounted for nearly one third of the EU biofuels market (COM, 2012a). At the same time as imports grew, biofuels became the object of an intense debate following the publication of two controversial studies (Searchinger et al., 2008; Fargione et al., 2008). Based on these and the numerous studies which followed, critical concerns were raised over the desirability of biofuels due to the risk of competition with food supply, land clearing and resulting loss of habitat and carbon emissions (Pimentel et al., 2009; Fargione et al., 2008). Of particular attention was the deployment of large-scale biofuels programs in the EU and United States which, through the mechanisms of Indirect Land Use Changes (ILUC) and market competition, could generate negative impacts in distant regions and, in particular, developing countries (Banse et al., 2008).

In this context, the capacity of the EU to limit the risk of negative impacts in geographically distant regions has become a key point of contention in the debate about transport biofuels. Environmental non-governmental organizations (ENGOS) and other

sceptical stakeholders argued that without a proper system to ensure sustainable production of biofuels within and outside the EU, policy support for these technologies should be discontinued (Pilgrim and Harvey, 2010). In response to this, EU policymakers introduced within the renewable energy directive (RED, 2008) a certification scheme to ensure sustainable production of all biofuels consumed in the EU. However, the capacity of this policy instrument to achieve such an ambitious goal is challenged by the lack of EU jurisdiction to enforce compliance in third countries and the limited scope of the selected certification criteria (Di Lucia, 2010).

Against this background, I argue in this chapter that the capacity of the EU to ensure that an expansion of the biofuels sector does not generate unacceptable socio-ecological impacts in developing countries is a necessary condition for biofuels to remain on the post-2020 political agenda in the EU. Therefore, the aim of this chapter is to evaluate the influence exercised by the EU on national systems in countries and regions beyond EU borders and neighbouring countries. The analysis does not attempt to explain why third countries adopt certain policies, or choose to produce biofuels in compliance with EU-inspired sustainability requirements, but seeks to answer two key questions:

- 1 What mechanisms have been employed by the EU to export to third countries its rules and values about sustainable biofuels?
- 2 To what extent have EU rules and values about sustainable biofuels been adopted in domestic policy and applied in practice in third countries?

To answer these questions and advance the aim of this study, I employ an analytical approach derived from the literature of external governance (Lavenex and Schimmelfennig, 2009; Lavenex, 2004) in which scholars have evaluated the means and results of the EU's influence on countries which cannot become, or are not interested in becoming, EU member states.

Mozambique, a less developed country with biofuels ambitions and large production and export potentials, is selected as an empirical case for this study. Mozambique represents a

group of tropical developing countries which show weak institutional frameworks for environmental and social protection and, at the same time, high potential to benefit from deploying a domestic biofuels sector. In shedding some light on the case of Mozambique, this study seeks to contribute to the understanding of the potentials and challenges of the EU biofuels governance in developing countries.

The study relies primarily on written sources, including scientific and grey literature published on the topic, and interviews with involved actors. Interviews with officials of the Mozambican government (Ministry of Energy and Ministry of Agriculture) and the delegation of the European Commission in Maputo were carried out in 2007 and 2014. These interviews allow a deeper understanding of EU and Mozambican biofuels-related initiatives in the period under analysis.

In the remainder of the chapter, Section 14.2 describes the framework employed in the analysis and the theoretical bases upon which it is built. Section 14.3, illustrates EU rules and values about sustainable biofuels, while Section 14.4 provides an overview of the Mozambican biofuel sector. The results of the analysis of EU external governance in Mozambique are presented in Section 14.5 with attention to policy adoption and application in domestic practice. The chapter ends with Section 14.6 in which the results of the analysis are discussed and a set of conclusions put forward.

14.2 The study of EU external governance and Europeanization beyond EU borders

Traditionally, the study of Europeanization has been largely confined to the impact of European integration and governance on the member states of the EU (see for example Knill, 2005; Börzel and Risse, 2003; Knill and Lehmkuhl, 2002; see also Chapter 1 by Jörgens and Solorio). More recently the attention of scholars interested in Europeanization has also included the impact of the EU on neighbouring countries applying for membership

(Sedelmeier, 2006; Schimmelfennig and Sedelmeier, 2004; Grabbe, 2003; see also Chapter 12 by Escribano) However, much less attention has been paid to the impacts in countries that are not interested, or have no chance of joining the EU (Knill and Tosun, 2009; Schimmelfennig, 2009).

Emerging scholarly literature on EU external governance explores whether there is an expansion of the regulatory and organizational boundaries of the EU short of enlargement (Lavenex and Schimmelfennig, 2009; Bauer et al., 2007; Lavenex, 2004). The framework developed within this literature to analyse Europeanization both within and beyond EU boundaries emphasizes the relevance of three ideal modes of governance: hierarchy, networks and markets¹. In a nutshell, hierarchical governance is seen as a form of steering based on formal and precise rules that are non-negotiable and legally binding as well as enforceable upon actors (Lavenex and Schimmelfennig, 2009). Europeanization through hierarchy, or by compliance (Bauer et al., 2007), is thus a coercive mechanism whereby legally binding rules are implemented by national governments to avoid sanctions. Network governance is a broader category in which change is the result of coordination efforts, voluntary negotiations and bargaining, or the unilateral transfer of policies based on processes of imitation or learning. This mode of governance, similar to what Bauer et al. (2007) describe as communication, is marked by an institutionalized infrastructure for the exchange of information and policy learning (Knill and Tosun, 2009). The rationality of this mode is to secure and increase the legitimacy of particular models, through deliberative processes, co-ownership and interaction (Schimmelfennig and Sedelmeier, 2004). Finally, market governance is the third major mode of governance in this framework. Here change is the result of competition between formally autonomous actors. The adoption and application of EU rules take place in non-member states on a voluntary basis and the potential impacts foremost depend on the interest of actors in accessing the EU market (Lavenex and Schimmelfennig, 2009).

The analytical framework applied in this study relies largely on the framework developed by external governance scholars. In the framework hierarchical governance is assessed by examining international agreements concluded between the European Commission and the government of Mozambique addressing the sustainability of biofuels. The legal obligations introduced in these international agreements are evidence of hierarchical modes of external governance. Network governance is examined by evaluating the extent and quality of intergovernmental and transnational processes of collaboration and communication between the European Commission and the government of Mozambique in activities linked to the sustainable production of biofuels. Mozambique might adopt and apply EU rules and values if they are seen as appropriate in light of its own values and priorities. It is assumed that this can be triggered by providing an institutionalized structure for communication and policy learning either through intergovernmental interactions, or through transnational processes (Schimmelfennig and Sedelmeier, 2005, pp. 11–12,18). Finally, market governance is assessed by examining EU policies that change the opportunity structure of actors interested in participating in the EU market.

Although these three modes of governance are heuristic devices which cannot fully represent the complexity of the empirical reality where governance modes often work simultaneously, this framework can be used to characterize a set of EU policy initiatives suitable for exporting EU rules and values to Mozambique. However, before being able to do this we need to identify EU rules and values on sustainable biofuels. Finally, the influence of EU external governance in Mozambique is examined by assessing policy adoption and domestic practice in Mozambique. Policy adoption is evaluated by identifying cases of matching content between EU rules and values and Mozambique's domestic policy, and conducting a counterfactual analysis of such cases to establish whether the matching content is unlikely to be the result of EU (biofuels) governance. Domestic practice is evaluated by

examining the biofuel sector in Mozambique in terms of production, consumption and trade volumes.

14.3 EU rules and values on sustainable biofuels

In order to be able to assess the influence of the EU in Mozambique, it is necessary to identify EU rules and values on sustainable biofuels. A limitation of this approach is the assumption that common EU values exist, while it is in fact more likely that a wide range of positions exists among actors in the EU. This is addressed by considering as EU rules and values those expressed in official documents by EU institutions (the European Commission, the European Parliament and the Council of the EU).

The sustainability of transport biofuels has only become a contested issue among EU institutions in recent years (Solorio and Popartan, 2014). The RED contains the most accurate account of EU institutions' rules and values on the sustainability of biofuels. Firstly, it establishes a set of mandatory requirements for biofuel producers and distributors (art. 17, paragraph 2 to 5). These requirements include: (i) a minimum reduction of greenhouse gas (GHG) emissions of 35 percent (50-60 percent by 2018) compared to fossil-based fuels, and (ii) a ban on the use of feedstock produced from land of high carbon or biodiversity value. For the purpose of this study, these requirements are considered EU rules.

Furthermore, the RED introduces monitoring requirements upon the European Commission and national governments (art. 17, paragraph 7, and art. 23). These cover both socio-economic issues, namely impact on food security and food prices, respect of land-use rights and compliance with internationally accepted labour standards, and environmental issues including local impacts on biodiversity, air, soil and water. In this study these issues are considered EU values because, although seen as important by EU institutions, they do not create obligations upon economic actors.

14.4 An overview of biofuel developments in Mozambique

Located in the eastern part of southern Africa, Mozambique is one of the fastest growing economies in the region, but still one of the poorest countries in the world with approximately 80 percent of the population employed in the agricultural sector (UNCTAD, 2012). The country has relatively little experience with biofuels, but is considered a promising region due to the relative abundance of land and water resources, favourable climatic conditions and low population density (Econergy, 2008). According to government estimates, only about 10 percent of Mozambique's 36 million ha of potential agricultural land are currently under cultivation, while 7 million ha are 'available for allocation to land-based economic activities, including biofuels' (Econergy, 2008).

The Mozambican government has promoted the development of a national biofuels industry since 2004 attracting local and foreign investors interested in developing large tracts of land to produce biofuels feedstock. However, shortly after the first large-scale biofuels project (PROCANA) was approved in October 2007 (Schut et al., 2010), the land authorization process was placed on hold until May 2008 due to the high volume of large-scale land-requests². The process was reopened only after an agro-ecological land zoning exercise identified areas suitable for biofuels development (Schut et al., 2010). The surge of biofuels investments slowed after 2012 due to the financial crisis which resulted in a drastic reduction of funds for many of the proposed investments (Atanassov, 2013). However, by the end of 2013 a total of 18 projects (6 ethanol projects based on cassava, sugar-cane or sorghum feedstock and 12 biodiesel projects based on jatropha) were authorized to operate in the country. A combination of financial difficulties, bureaucratic red tape and conflict over land with local communities resulted in delays and small production volumes (Atanassov, 2013).

Despite the slow rate of implementation, Mozambique is recognized for having the most progressive biofuels legislation amongst its neighbours. Already in 2009, the government adopted a National Biofuels Policy and Strategy (NBPS) to guide the development of the sector (GOVMOZ, 2009). The policy emphasizes the importance of biofuels in contributing to reduced dependency on imported fuels, energy supply diversification, promotion of sustainable rural development and environmental protection, improved national trade balance as well as food and energy security. A key component of the NBPS is the definition of an appropriate decision-making system for land use, based on the results of two land zoning exercises.

Another major component of the country's regulatory framework for biofuels is the Biofuel Sustainability Framework (MBSF). Finalized in 2012, but still awaiting official approval at the time of writing (Schut et al., 2014), the framework consists of seven core principles and fifteen criteria to be upheld by all producers to ensure economic, social and environmental sustainability (NLAgency and Wageningen University, 2012).

14.5 EU external governance and the Mozambican biofuels sector

This section evaluates the instruments and models of governance employed by the EU to influence Mozambique and assesses the results obtained in terms of policy adoption and application domestically.

14.5.1 Instruments and modes of EU external governance

Policy instruments potentially suitable for the exporting of EU rules and values to Mozambique are identified by reviewing EU (internal and external) policies, programs and initiatives in the fields of energy, aid and development and trade. The evaluation of each instrument highlights the mode of governance employed and the level of application in the period from 2007 to 2013 (Table 14.1).

(TABLE 14.1 HERE)

Within the energy field, there are a number of initiatives that may be fitting for the export of EU rules and values to Mozambique. The RED, certainly the most important EU initiative on sustainable biofuels, provides two instruments to advance compliance with EU rules. The first, illustrated in art. 18.1, relies on changes to the domestic opportunity structure via market access and trade incentives. This instrument, applied since 2010, employs a market mode of governance to promote voluntary compliance among economic actors interested in accessing the EU market. The second instrument (art. 18.4) consists of the international agreements concluded between the European Commission and the governments of third countries. Once adopted and implemented these agreements may demonstrate compliance with the RED certification scheme, that is EU rules, for all the biofuel produced in the third country. This instrument employs a hierarchical mode of governance since the agreements become mandatory after ratification. However, in the period under analysis, the European Commission did not conclude any agreement under art. 18.4, or enter into negotiations with third countries.

In addition to the RED, other energy-related initiatives offer the opportunity to influence Mozambique. In particular, the Africa-EU Energy Partnership (AEEP) is a long-term framework for structured political dialogue and cooperation on energy issues with the aim of increasing the provision of reliable and sustainable energy services in both continents, enhancing access to modern energy services and expanding RES and energy efficiency in Africa (AEEP, 2010). With regard to biofuels, the AEEP invites African and EU authorities to develop programs and projects for the deployment of sustainable biofuels to advance economic development and social progress in African countries (AEEP, 2010). An important instrument to achieve the aims of the AEEP is the Africa-EU Renewable Energy Cooperation Program (RECP). The RECP implements and coordinates activities which could be used to promote sustainable biofuels in Mozambique, in accordance with EU rules and values. RECP

activities employ a network mode of governance since projects rely on collaboration and coordination among European and African donors and actors. However, there is no evidence in the RECP project database of activities in the field of biofuels or bioenergy in Mozambique (RECP, 2014).

Another important external policy initiative in the field of energy is the EU Energy Initiative (EUEI) (EUEI, 2012). Established in 2002 the EUEI aims broadly at poverty eradication and sustainable development through two key initiatives: the ACP (Africa, Caribbean and Pacific)-EU Energy Facility and the Partnership Dialogue Facility of the EU Energy Initiative (EUEI-PDF). The ACP-EU Energy Facility's goals are to increase energy access in poor areas by deploying RES and promoting energy efficiency, and to improve governance in the energy sector at regional, national and local levels (COM, 2012b). The Facility's projects are typically proposed and conducted in collaboration with local partners. Reliance on collaboration and communication among local and international partners means that these projects employ a network mode of governance. However, although potentially suitable for funding projects that promote sustainable biofuels, none of the projects funded in Mozambique addressed biofuels or bioenergy³. Another instrument active within the EUEI is the EUEI-PDF. Created in 2004 the EUEI-PDF is a flexible instrument used to promote collaboration between European and African partners in the field of renewable energy. Among the projects implemented in Mozambique⁴, the BEST project (2012-13) aimed to contribute to the design and implementation of a national Biomass Energy Strategy in Mozambique (Eco-consult, 2012). Although offering opportunities to introduce EU-inspired rules about sustainable biofuels in the Mozambican Biomass Energy Strategy, the project's focus was limited to solid biomass and charcoal (Eco-consult, 2012).

A different type of initiative in the field of energy takes the form of technical cooperation programs with developing countries (UNCTAD, 2009). The Trilateral Agreement EU–Brazil–Mozambique on bioenergy, signed in 2010, is a specific initiative for technical

cooperation on bioenergy and biofuels, which aims at providing Mozambique with technical expertise from Brazil and the EU (AIM, 2010). Cooperation activities under the agreement offer suitable means for the export of EU rules and values to Mozambique. The agreement relies on a network mode of governance since activities are typically conducted and designed in collaborations between Mozambican, EU and Brazilian parties. However, in the period under analysis the agreement produced only one feasibility study on sustainable bioenergy production in Mozambique (Cabral, 2014) with the European Commission not actively involved in the related activities (Interview – European Commission, 2014).

In addition to the energy field, the field of aid and development offers opportunities for the EU to influence the Mozambican biofuels sector⁵. Mozambique is highly dependent on international assistance and the EU (European Commission and member states) accounts for a large share of development assistance to the country. The European Commission is responsible for the implementation, operation and delivery of EU development aid to Mozambique within the framework of the European Commission-Mozambique Country Strategy Paper (CSP) financed through the European Development Fund (EDF). Between 2008 and 2013, about half of the funds allocated in the 10th EDF were directed to General Budget Support (GBS) and 30 percent to Sector Budget Support (SBS) which covers, in particular, infrastructure, health, agriculture and rural development (COM-GOVMOZ, 2007). The aid and development work funded through the EDF relies largely on a network mode of governance, in which the European Commission collaborates with Mozambican actors to implement the actions outlined in the CSP. However, although biofuels are explicitly mentioned in the 2008-13 CSP, no projects addressing the biofuel sector were supported via the 10th EDF in Mozambique (ODAMOZ, 2014; Interview - European Commission, 2014).

Finally, the policy field of international trade also offers opportunities to influence biofuel developments in Mozambique since the EU is a major trade partner of the African country (COM, 2014b). Under the ‘Everything But Arms’ arrangement, Mozambique has enjoyed

duty-free and quota-free access to the EU market for all goods (except arms) since 2001. By limiting free market access to those biofuels that were in compliance with EU sustainability rules and values, that is applying a market mode of governance, the EU could influence the Mozambican biofuels sector. However, the duty-free access granted to Mozambique, which was renegotiated in 2009 as part of the Interim Economic Partnership Agreement (EPA) concluded between the EU and Southern Africa Development Community (SADC) countries, did not establish special trade and market access conditions for biofuels (EU Council, 2009).

In summary, the analysis shows that in the period between 2007 and 2013 the EU favoured a market mode of external governance to influence the sustainability of the biofuel sector in Mozambique. Network and hierarchical modes of governance were not exploited in spite of an extensive range of opportunities in the fields of aid and development, and energy.

14.6 Results of EU external governance

The results of EU external governance in Mozambique are assessed here by examining both the level of adoption of EU rules and values into domestic policy and programs and the level of application in domestic practice. Adoption is evaluated in terms of the two primary components of Mozambique's biofuels policy framework: the National Biofuels Policy and Strategy (NBPS) and Mozambique Biofuel Sustainability Framework (MBSF), both illustrated in Section 14.4.

With regard to the NBPS, the results show that as a strategic policy document for the development of the biofuels sector in the country, the NBPS does not directly introduce standards or monitoring systems to address environmental impacts. It broadly states that its execution should promote a positive environmental impact and that any negative impact should be mitigated. However, the NBPS requires the establishment of a biofuels sustainability framework, and elevates as key priorities the need to ensure sufficient food

production and access to land. Furthermore, it specifically highlights the climate benefits of biofuels in terms of GHG emissions reductions, although only in connection with financing opportunities through the Clean Development Mechanism. As a result, the content of the NBPS can be considered as partly matching EU values, primarily, because of the reference to a sustainability framework and the strong concern with the impact on food security and land use.

In the case of the MBSF, the analysis shows limited matching between the content of EU rules and values and the majority of the principles of the MBSF (Table 14.2). This level of content mismatch can be interpreted as a substantial lack of agreement between EU and Mozambican policy makers about concerns related to biofuel expansion. However, three Principles (1, 3 and 7) show matching content.

- Principle 1 (legality) requires biofuels projects to comply with all applicable domestic laws, regulations and legal procedures including: (i) environmental laws, in particular, related to Environmental Impact Assessment - EIA (Law n.20/1997; Decree n.45/2004), water use (Law n.16/1991; Ministerial Order n.7/2010), pollutants discharge (Decree n.18/2004); and (ii) laws regulating land use (Law n.19/1997 and Decree n.66/1998), human rights protection (Constitution of the Republic of Mozambique; International Human Rights Law acceded by Mozambique) and labour (Law n.23/2007). The analysis shows that although Principle 1 does not match EU rules, it matches to a large extent EU values due to its concern with biodiversity, local environments, human rights, labour conditions and land use. However, the influence of EU external governance can be questioned. Most of these Mozambican laws and regulations were adopted before biofuels became an important issue in the EU, and/or in compliance with international law ratified by the country before the surge in the debate on biofuels.

- Principle 5 (food security) requires biofuels operations to define a plan to avoid negative impact on the local availability and access to staple food. This principle matches EU values on food security. However, the influence of EU external governance is, once again, questionable. Our interviews with government officials confirm that food security has been a key concern of the government since at least the end of the civil war in 1992 (Interview - Ministry of Energy and Ministry of Agriculture, 2007).
- Principle 7 (environmental protection) requires biofuels operations to demonstrate that biofuels provide reduced GHG emissions compared to fossil fuels. This Principle matches EU rules about GHG emissions reductions, even though it does not adopt the same minimum saving thresholds established in the RED. There is evidence that the matching content is to some extent linked to the EU's biofuels external governance. While in 2007 climate protection was not an important issue for the Mozambican government (Interview - Ministry of Energy, 2007), Principle 7 contains a verifier that obliges domestic biofuels operators to use an internationally recognized calculation method to demonstrate GHG emissions reductions. The use of a recognized calculation method is a condition for export to the EU market. This suggests that EU governance influenced policy adoption in Mozambique. Moreover, Principle 7 matches EU values when it requires operators to demonstrate evidence of an EIA and actions to minimize negative impact on soil, air, water and biodiversity. However, the matching does not appear to be a consequence of EU external governance since the EIA regulation and, more generally, concerns with the environmental impact pre-exist the surge in biofuels in Mozambique and apply to a broad range of projects.

(TABLE 14.2 HERE)

A second component of the assessment is the evaluation of the level of application of EU rules and values in domestic practice. Domestic practice, examined in terms of the volumes of biofuels produced, consumed and traded in compliance with EU rules and values, is an indicator of EU influence on economic actors in Mozambique. However, the domestic biofuels sector was characterized in the period under analysis by very limited production volumes. Although a large area of nearly 210 000 ha was authorized by the government for feedstock cultivation, only 2-3 percent of that area was effectively cultivated for the production of biofuels feedstock in 2013 (Atanassov, 2013). The resulting production volumes were negligible with only two companies supplying biofuels to the domestic market. Cleanstar Mozambique produced 3500 tonnes of ethanol for the domestic cooking fuel market, while NIQEL supplied 152 tonnes of jatropha biodiesel (Locke and Henley, 2013). At the same time, their production was not certified as employing schemes recognized by the European Commission (Atanassov, 2013). As a consequence of the low production volumes, the government decided to postpone the enforcement of the national consumption targets adopted in 2011 (decree 58/2011) when the wave of investments in biofuels projects convinced the government that a flourishing domestic sector was at hand. The sector did not develop as its proponents had expected due to a combination of factors, including a lack of financial capital following the global financial crisis, delays in the authorization processes and conflicts over land rights (Atanassov, 2013).

(TABLE 14.3 HERE)

Under these circumstances, production, consumption and trade volumes are not the most appropriate indicators of the influence of EU external governance in Mozambique. On the one hand, no production of biofuels certified in compliance with EU rules and values could be interpreted as demonstrating the limited impact of EU governance. On the other hand, the small volumes produced could be interpreted as evidence of negligible impact in violation of EU rules and values. Yet this latter interpretation overlooks the fact that land that

was assigned to biofuels companies was often converted causing deforestation. This appears to be incompatible with EU rules and values. Under the current conditions an assessment of land-use changes would be more appropriate. However, the lack of reliable data makes this evaluation impractical at this time.

14.7 Discussion and conclusions

The aim of this chapter is to evaluate the influence of EU external governance on the development of the biofuels sector in Mozambique in relation to the sustainable production of biofuels. The findings of the analysis show that between 2007 and 2013 the EU sought to influence the biofuels sector in Mozambique, primarily by employing market governance and the instruments offered by the RED. The most evident results of this governance strategy can be seen in the level of adoption of EU rules and values in domestic biofuels policies. There is evidence of matching content between EU rules on GHG savings and values about biodiversity, the local environment, labour conditions, food security and land use rights, and Mozambican policies. However, except for the case of GHG emissions savings, the matching content appears to be independent of EU (biofuel) external governance. This is not necessarily bad news since there is little scope for influence in cases that show no or little mismatch between EU and domestic policy. However, the findings of the analysis are less encouraging with regard to the practical application of EU rules and values in domestic practice. In the period under analysis, none of the biofuels produced in Mozambique were certified in compliance with EU rules and values. Furthermore, although comprehensive data about the land-use changes associated with biofuels investments is lacking, anecdotal evidence suggests that biofuels projects caused negative land-use changes in Mozambique (see for example Nhantumbo and Salomão, 2010; Borrás et al., 2011). Biofuels projects in conjunction with other activities such as mining, forestry and tourism further exacerbate competition for land, water and other resources. Important advances have been made on the assessment and

modelling of land-use changes caused by biofuels expansion (Ahlgren and Di Lucia, 2014). However, many developing countries still lack the data needed to feed these models. The rapid evolution of the biofuels sector in many countries and the growing interest in land acquisitions for agricultural purposes call for further research and continued monitoring of developments in this field.

The case of EU (biofuels) external governance in Mozambique bears important lessons for EU renewable energy policy. Although the necessity to ensure sustainable production of the biofuels consumed in the EU has been widely recognized, the capacity to effectively influence production in developing countries in accordance with EU priorities remains a major challenge. This study puts forward some evidence in support of the idea that such influence is indeed possible. Three sets of potentials deserve attention. Firstly, the EU is an attractive market for producers in developing countries. Many developing countries enjoy duty-free EU market access for their produce. This opens up important trade opportunities and with them the possibility for the EU to influence product and non-product related Process and Production Methods (PPMs) by making the signature of trade agreements conditional on third countries' respect for certain market, environmental or human rights norms (Lavenex, 2014). In the case of Mozambique where biofuels producers enjoy duty-free access to the EU market, 65 percent of the projects currently active consider the EU as their major market for export (Atanassov, 2013). Secondly, the EU has established numerous cooperation frameworks which could be used to address issues related to the sustainability of biofuels in developing countries. In the case of Mozambique, the AEEP and the EUEI offer established policy and institutional frameworks which, together with the European Commission aid and development work in Mozambique, could promote projects and activities in cooperation with local actors. Finally, the European Commission has the competence to conclude bilateral agreements with countries producing biofuels and feedstock for the EU market. Introduced by the RED in 2009 but never employed by the European Commission, this instrument offers the

possibility to take a broader, more holistic approach to fulfilling EU sustainability requirements, which is particularly relevant for developing countries (Westberg and Johnson, 2013). This instrument can be used to simultaneously expand the scope of the RED certification scheme and overcome the limitation of a lack of EU enforcement power in third countries.

The results of this study also provide insights into some of the challenges and limits of EU external governance. Firstly, in the case of sustainable biofuels the EU has not been able effectively to coordinate efforts in different policy fields. In agreement with previous studies from other policy fields, for example in energy (Tosun and Solorio, 2011; Selianko and Lenschow, 2015; Nilsson et al., 2012) and aid and development (Carbone, 2008), the EU also suffers from weak policy coherence when it comes to biofuels. EU energy, trade and development policies and activities were not coordinated to advance the goal of sustainable biofuels production in Mozambique. Our interviews revealed that within the European Commission there were no detailed instructions and procedures regarding the coordination of development goals and policies and biofuels-related activities (Interview – European Commission, 2014). Related to this lies a second major challenge for EU external (biofuels) governance: the limited use of the instruments available within the realm of EU external energy and development policy⁶. As discussed above, external energy and development policy can provide the framework to promote sustainable biofuels systems in developing countries, such as Mozambique, where biofuels can significantly contribute to development objectives, economic development and poverty reduction. However, EU policymakers have for too long viewed biofuels as an internal policy issue, in spite of the growing concern with the extra territorial impacts of biofuels on the natural environment. This view should change. In agreement with the EU biofuels strategy presented in 2006 (COM, 2006), biofuels should not only be a means of climate protection, energy security and rural development in the EU

but also, and more importantly, a motor for development and poverty reduction in developing countries.

The EU has been widely described as an environmental champion and normative power. Yet the track record of its action beyond its borders remains overall disappointing (Afionis and Stringer, 2012; Adelle and Jordan, 2009). This study confirms these conclusions, but also suggests that there is a wealth of opportunities for the EU to contribute to the development of a sustainable biofuels sector in developing countries. Current EU biofuels policy focuses on fulfilling an internal consumption target, through certified biofuels alone cannot be expected to achieve this (AETS, 2013). However, the European Commission seems convinced that more of the same will address the problems and thus proposes stricter certification requirements (see for example the latest European Commission proposal to address ILUC – COM, 2012c). The results of this study suggest that a more coordinated use of the available modes of external governance is likely to yield more positive outcomes. In particular, further involvement of developing countries through the use of the instruments of network governance (for example within the frameworks of AEEP and EUEI) and hierarchical governance (for example bilateral agreements excluding RED) would go a long way especially in countries such as Mozambique, which have shown real interest in developing a sustainable biofuel sector, and made significant investments in the policy and institutional frameworks needed for that purpose. The study of the synergetic coordination of the instruments of network, hierarchical and market governance remains a key challenge for future research in the field of EU biofuel external governance.

Notes

¹ The notion of governance, understood as a broad term which encompasses all the purposeful mechanisms and measures aimed at steering social systems (Jagers and Striiple, 2003), is employed to describe the process of rules expansion beyond EU formal membership.

² According to the Constitution, all natural resources in Mozambique, including land, belong to the state. Land can be leased following procedures regulated by the Land Law (n.19/1997).

³ See the projects database of the Facility (COM, 2014a)

⁴ See the projects database of the EUEI (EUEI, 2014)

⁵ Initiatives in the fields of energy and development often overlap due to the importance of energy to socio-economic development, for example the AEEP and the EUEI are energy initiatives with clear development objectives.

⁶ This does not refer to EU member states, such as the Netherlands and Germany, which actively engaged in development activities in Mozambique, offering financial and technical cooperation in the field of sustainable biofuels (Interview – European Commission, 2014).

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Table 14.3. Overview of biofuel projects in Mozambique for the year 2013

Source: (Atanassov, 2013)

	Ethanol	Biodiesel	Total
Projects authorized	6	12	18
Projects implemented	3	10	13
Total area authorized (ha)	97530	111797	209327
Area cultivated (ha)	2080	4030	6110
Biofuel production (t/y)	3500	152	3652
Planned biofuel production (t/y)	422000	89412	511412

Table 14.2. Matching content between Mozambique’s policy and EU rules and values of sustainable biofuels

Principle	EU Rules	EU Values
1. Legality	NO	YES
2. Social Responsibility	n/a	n/a
3. Energy Security	n/a	n/a
4. Economic and Financial Sustainability	n/a	n/a
5. Food security	n/a	YES
6. Industrial and Agricultural Productivity	n/a	n/a
7. Environmental protection	YES (GHG emissions)	YES

Table 14.1. Policy instruments and modes of EU external governance applicable in Mozambique

FIELD	POLICY INITIATIVE	POLICY INSTRUMENT	GOVERNANCE MODE	APPLIED
Energy	Renewable Energy Directive (internal policy)	<i>Art. 18.1</i> – Certification of sustainable biofuel. Only certified biofuels receive policy support in the EU	Market	YES
		<i>Art. 18.4</i> – International agreements. Biofuels produced in countries signatory of these agreements comply with the requirements of the RED	Hierarchy	NO
	Africa-EU Energy Partnership	<i>The Africa-EU Renewable Energy Cooperation Programme (RECP)</i> promotes activities to (i) enhance industrial and business cooperation between the two continents, (ii) improve policy and regulatory frameworks for renewable energy in Africa, (iii) deploy renewable energy, and (iv) educate energy professionals in Africa (AEEP, 2010)	Network	NO
	EU Energy Initiative	<i>The ACP-EU Energy Facility</i> is a co-financing instrument which supports projects aiming to increase and improve access to modern, affordable and sustainable energy services for the rural poor in African countries (EC, 2012a)	Network	NO
		<i>Partnership Dialogue Facility of the EUEI (EUEI-PDF)</i> is a flexible instrument for the development of policies and strategies that contribute to improved access to affordable and sustainable energy services in Africa (EUEI, 2012)	Network	NO
	International Technical cooperation	<i>EU-Brazil-Mozambique Trilateral technical cooperation agreement for bioenergy</i> provides technical assistance for the deployment of bioenergy in Mozambique.	Network	NO
Aid & development	EU – Mozambique development cooperation	<i>European Development Fund (EDF)</i> is the main instrument for EU aid for development cooperation in ACP countries.	Network	NO

Trade	Economic Partnership Agreement	<i>EU-SADC Economic Partnership Agreements</i> are trade and development agreements negotiated between the EU and SADC region to promoter trade and integration of SADC countries into the world economy.	Market	NO
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15. Conclusions: Patterns of Europeanization and policy change in the renewable energy policy domain

Helge Jörgens, Eva Öller and Israel Solorio

15.1 Introduction

The great transformation of the energy systems of the European Union (EU) and its member states towards a greater incorporation of renewable energy sources (RES) that has started in the late 1970s has come to a crossroads. After a slow start, the 1990s and most of the 2000s have witnessed a rapid increase in policies and programmes aimed to promote the production and consumption of energy from RES, both at the level of EU member states and at the European level. These policies have resulted in an equally rapid growth of the share of RES in national and European energy mixes. However, since the late 2000s, the speed of transformation has slowed down considerably and instances of policy dismantling are becoming more frequent.

The preceding chapters analysed this development from a member-state perspective. Drawing on this rich empirical and analytical background, the concluding chapter adopts a comparative perspective in order to identify more general patterns of Europeanization and policy change in the renewable energy policy domain over the past decades. In the next section, important steps in the Europeanization of RES-E policies in EU member states are examined. Reference points that help to make the diverse national actions comparable are the major legislative or programmatic decisions taken at the EU level, that is, the RES-E directive of 2001, the renewable energy directive (RED) of 2009 and the 2030 climate and energy framework of 2014. Section 15.3 compares Europeanization processes in the field of biofuels. Here, the major reference points around which Europeanization dynamics are observed are the biofuels directive of 2003 and again the RED of 2009. The external dimension of RES Europeanization is addressed briefly in Section 15.4 while Section 15.5 addresses differences between the two policy domains – RES-E and biofuels – in an attempt to explain why the promotion of RES-E has generally been more successful and more sustainable than the promotion of biofuels. Finally, Section 15.6 rounds up the analysis by taking an independent and comparative look at the role of two major groups of non-state actors – utilities and environmental NGOs (ENGOs) – and their power, preferences and strategic choices in the RES-E and biofuels sectors.

15.2 Patterns of Europeanization in RES-E policy

15.2.1 Europeanization dynamics related to the 2001 RES-E directive

The first EU legislation explicitly designed to promote RES was the renewable electricity directive of 2001 (RES-E directive). Its development dates back to a first Commission Green Paper on RES published in 1996 (see Chapter 2 by Solorio and Bocquillon). Which countries were influential in the design of the directive? And how did it impact on the RES-E policies of EU member states? Table 15.1 summarizes the major Europeanization dynamics related to the negotiation and implementation of the RES-E directive.

First of all, and somewhat surprisingly, our cases show that the RES-E directive had only a limited direct (top-down) impact on national policies to promote RES-E. In other words, *top-down Europeanization* in the first phase of European RES-E policy occurred

indirectly rather than directly. In most countries, it was the EU-driven liberalization of the electricity markets rather than the RES-E directive that triggered the most important national policy changes. It did so by significantly changing domestic opportunity structures. On the economic side it removed structural and institutional barriers to market entry for (potential) producers of RES-E. On the political side, it set the course for domestic policies and programs aimed at gradually and incrementally increasing the share of RES-E in domestic energy production and consumption without raising the opposition of powerful 'natural' opponents such as the big power utilities. As Table 15.1 shows, indirect top-down Europeanization through the liberalization of electricity markets constitutes a major Europeanization dynamic both in old and highly industrialized member states like Germany (Chapter 3 by Vogelpohl et al.), the Netherlands, (Chapter 4 by Hoppe and van Bueren), France (Chapter 9 by Bocquillon and Evrard) or Italy (Chapter 7 by Di Nucci and Russolillo) and newer EU members such as Spain (Chapter 8 by Solorio and Fernandez), Poland (Chapter 10 by Jankowska and Ancygier) or Bulgaria (Chapter 12 by Hiteva and Maltby). Hoppe and van Bueren's observation that in the 1990s '(t)he Netherlands became one of the forerunners in [the liberalization of energy markets] and Europeanization was much more focused on this process than on the upcoming RES-E directive' characterizes the RES-E priorities of many EU member states at this time.

In addition to the liberalization of electricity markets, EU structural funds also had some impact. Initially, European programmes, such as JOULE, THERMIE and ALTENER played a significant role in fostering research on the domestic level. The promotion of RES-E was also incorporated in the EU's regional and competition policy. For instance, the Valoren programme strengthened structurally disadvantaged regions to trigger RES-E development and EU liberalization policies embarked a far-reaching re-arrangement of energy systems and markets (see e.g. Chapter 8 by Solorio and Fernandez on Spain and Chapter 9 by Bocquillon and Evrard on France). Similarly, in Chapter 7 Di Nucci and Russolillo show that in Italy from the late 1980s the European structural and investment funds strengthened local governments' expertise in the RES-E field and provided funding for investments. The role of regional policy and structural funds was predominantly a capacity-building one, creating or strengthening actors in favour of RES-E promotion.

Finally, and contrary to what has been observed in much of the literature on national compliance with EU directives, our case studies show top-down Europeanization to be strongest before – and not after – a European directive was adopted. For example, in Italy, the Bersani decree of 1999 introduced an ambitious support scheme for RES-E based on mandatory quotas, Tradable Green Certificates (TGCs) and priority access to the grid for RES-E that replaced previous Feed-In Tariffs (FITs). A key driver for the change in RES-E policy was the publication in October 1998 of a first unofficial draft of the EU's 2001 RES-E directive. In this draft the European Commission had expressed its strong preference for a support model based on quota systems (see Chapter 2 by Solorio and Bocquillon). As Di Nucci and Russolillo argue in Chapter 7, it was this (rather remote) possibility of an EU-wide harmonization towards a system based on RES-E quotas and TGCs, and the resulting threat that support schemes based on FITs might cease to be in compliance with EU law, that triggered the Italian policy change. In France, the negotiations of the EU RES-E directive built momentum for the inclusion of RES-E promotion in the Electricity Bill of 2000 (Chapter 9 by Bocquillon and Evrard).

<<Insert table 15.1 here>>

While direct top-down Europeanization, that is, the implementation of institutional and governance prescriptions regarding the definition, goals and instruments of RES-E promotion, occurred mainly in new member states, *bottom-up Europeanization* was driven by older member states that at the same time were forerunners in RES-E promotion and already had elaborated support schemes in place. Their main rationale during the negotiation of the directive was to protect national interests, both economic and political. For example, countries that had a functioning RES-E support scheme based on FITs in place prior to the adoption of the directive tried hard to avoid any EU-wide harmonization of support schemes. The reason was that the European Commission had pronounced a clear preference for more market-oriented support schemes based on TGCs and chances were high that any harmonization of national instruments would follow this model. Thus, rather than trying to upload their domestic system to the European level, countries like Germany (Chapter 3), Denmark (Chapter 5) and Spain (Chapter 8) opted for the more secure strategy of negative coordination by simply trying to veto any kind of harmonization of support schemes. In contrast, the UK (Chapter 6) that was in favour of TGCs schemes pushed hard, but unsuccessfully, for an EU-wide harmonization. Other national interests that shaped individual strategies of bottom-up Europeanization related to the definition of RES-E – for example the Dutch attempt to extend it to electricity from waste and biomass incineration (Chapter 4) – or the level of ambition of RES-E targets (Chapter 8 by Solorio and Fernandez on Spain). Whereas bottom-up Europeanization was dominated by domestic economic and political concerns and characterized by strategies of foot-dragging and negative coordination, it was processes of *horizontal Europeanization* that positively influenced the instrumental design of many domestic RES-E policies. By setting a concrete and widely visible example for an effective support scheme, the pioneers and proponents of FITs, Denmark, Germany and Spain, were able to influence the shape of RES-E policies in other member states. The observation of Vogelpohl et al. (Chapter 3) that 'Germany's support scheme served as a model for other countries and thus provided for horizontal Europeanization by learning and imitation processes' characterizes not only the first phase of European RES-E policy, but also the second phase that centered around the negotiation and implementation of the 2009 RED (see Table 15.2). However, our cases also show that horizontal Europeanization is not a unidirectional process and that its potential for the cross-national harmonization of policies is limited. At the same time that the FITs system spread to countries like Italy (Chapter 7), Poland (Chapter 10) took inspiration from the UK and adopted support schemes based on quotas and TGCs. Thus, rather than harmonizing national support schemes, horizontal Europeanization resulted in a continuous oscillation of support schemes between the more environmentally effective FITs and the more economically efficient TGCs or feed-in-premiums (FIPs).

15.2.2 Europeanization dynamics related to the 2009 renewable electricity directive

The second major legislative step in EU RES promotion occurred in 2009 with the adoption of the RED. It established an integrated framework RES promotion, not only for the electricity sector but also for transport and heating and cooling. It set an overall EU RES target of 20 percent by 2020 as well as mandatory national RES targets, but refrained from harmonizing support schemes and the breakdown of national RES targets into specific targets for RES-E and other types of RES were left to the member states (see Chapter 2 by Solorio and Bocquillon).

Table 15.2 summarizes the main Europeanization dynamics with regard to the negotiation and implementation of the RED. Again, direct *top-down Europeanization*

plays an important role only in a relatively small number of countries, namely Italy and France as well as the new member states Poland, Romania and Bulgaria. The main reason was that – apart from the mandatory national RES targets that were perceived as a great challenge for example in Italy and France – the directive created only very limited direct adaptational pressure in the member states.

Consequently, the 2009 RED had its biggest impact on those member states that joined the EU after 2004. In other words, the classical mechanism of top-down Europeanization, the direct prescription of institutional or governance models, has been strongest in countries that only recently joined the EU. This can be explained by the fact that accession countries were under special scrutiny to comply with entire body of EU secondary law (including those laws that were still in the making). Even in the case of relatively vague programmes like the RED (and also the previous RES-E directive), which lacked concrete instrumental prescriptions and specific mandatory RES-E targets and therefore didn't lead to strong adaptational pressures, accession countries needed to actively demonstrate that and how they had transposed the directive. Against this backdrop, Hiteva and Maltby (Chapter 12) characterize Bulgaria's accession to the EU as a 'period of intense top-down Europeanization' as it 'involved preparing the national legislation for EU accession'.

As in the previous period, policy change both at the European level and in the member states was strongly affected by processes of *bottom-up Europeanization*. With regard to the harmonization of national support schemes, once again a coalition of foot-draggers led by Germany and Spain successfully vetoed a shift towards a common EU-wide approach. At the same time, the level of ambition of national RES targets as well as their breakdown into specific sub-targets for the different types of RES was highly controversial. For the first time, new member states that had entered the EU in the first and second round of Eastern enlargement undertook serious attempts to upload their domestic policy preferences to the EU level (for Poland see Chapter 10 by Jankowska and Ancygier; for Romania see Chapter 11 by Davidescu). Interestingly, the conflicts over support schemes and targets were attenuated and compromise was made possible in part because some member states – such as the UK (see Chapter 6 by Solorio and Fairbrass) and France (Chapter 9 by Bocquillon and Evrard) – changed their negotiation strategy from one based on national preferences to one of coalition-building.

With regard to *horizontal Europeanization*, this second phase of EU RES-E development was characterized by the parallel diffusion of two types of support schemes: the FITs where Germany continued to be the European role model and TGCs with the UK being the main point of reference for domestic adoptions. For example, Di Nucci and Russolillo observe that the successful cross-national diffusion of FITs lead Italy in 2005 to adopt a support scheme for photovoltaics based on FITs although a support scheme based TGCs was the dominant instrument at the time (Chapter 7 by Di Nucci and Russolillo).

Moreover, the Italian case shows that horizontal Europeanization does not only occur at the level of support schemes, but also at the level of specific settings. An example is the cross-national transfer of limits for installed photovoltaics (PV) capacity. For Italy, Di Nucci and Russolillo observe that annual limits on installed PV capacity introduced in the mid-2010s were 'in line with the activities in other European countries such as Spain'.

Finally, in cases where policy development at the national level is blocked or stays behind the expectation of domestic proponents, the horizontal diffusion of ambitious policies may shift to the subnational level. An example are the Netherlands where proactive local governments drew inspiration for ambitious RES-E programmes from their counterparts in Germany (see Chapter 4 by Hoppe and van Bueren).

<<Insert table 15.2 here>>

15.2.3 Europeanization dynamics related to the negotiation and adoption of the 2030 climate and energy framework

The most recent step in the development of the EU RES-E policy was the adoption of the EU's 2030 climate and energy framework and a revision of its guidelines on state aid for environmental protection and energy, both in 2014 (see Chapter 2 by Solorio and Bocquillon). The Europeanization dynamics that evolved around these policy changes are summarized in Table 15.3. Although, at the time of writing, it is still too early to assess the dynamics of *top-down Europeanization* resulting from these decisions, there are indications that indirect Europeanization may – once again – play a major role in shaping future national RES-E policies. After various unsuccessful attempts to harmonize national RES-E support schemes towards a concrete governance model – a strategy that could be described as ‘positive coordination’ (Kassim 2001) – the European Commission and member state governments have started to apply a logic of ‘negative coordination’ to reach a greater uniformity of national RES-E policies. Rather than directly prescribing a concrete governance model, the new strategy of negative coordination focuses on indirectly reducing the range of permissible alternatives. The periodic revision of the guidelines on state aid for environmental protection provided an opportunity to change the rules for state aid in such a way that FITs-based support schemes would no longer be permissible. Similar to the liberalization of electricity markets since the mid-1990s, the modified state aid rules changed the opportunity structure for domestic actors in the RES-E policy domain. Member state governments as well as a wide range of domestic actors could now oppose environmentally effective FITs without automatically damaging their environmental image. The fact that Germany used this opportunity to opt out of its FITs that had increasingly been contested domestically in 2014 (Chapter 3 by Vogelpohl et al.) shows the potential of this indirect form of top-down Europeanization for harmonizing domestic RES-E support schemes. With regard to *bottom-up Europeanization* it is striking that, in the aftermath of the economic and financial crises, economic concerns with high electricity prices, costly infrastructure investments and the competitiveness of domestic industries have become dominant motives for many countries to actively oppose ambitious RES-E targets and to push for greenhouse gas targets (GHG) that leave greater leeway for other forms of reducing carbon emissions such as increasing the share of nuclear power. At the same time, the former pace-setters have gradually shifted towards a strategy of fence-sitting (Germany and Spain) or coalition-building (Denmark). The reasons for this shift are manifold, but various case studies draw a picture self-defeating success of RES-promotion that was aggravated by the economic and financial crises. For example, in Bulgaria, within a short period of time, an ambitious system of relatively high FITs with a long duration and combined with cost-free and guaranteed grid access was established in order to achieve the EU RES target as well as national RES-E targets. However, this development, driven by fast and relatively hierarchical Europeanization, resulted in a problematic gap between an overly successful incentive mechanism for RES-E generation and a domestic grid infrastructure that was insufficient for accommodating the rapidly growing share of RES-E. The consequence was a partial non-implementation and subsequent dismantling of the RES-E support scheme, both of which became possible because the successful compliance with the EU's RES-E targets had not been accompanied by an equally successful alteration of the beliefs and

expectations of key actors at the national level. As Hiteva and Maltby (Chapter 12) write: ‘The period of favourable market conditions for RES-E prompted by top-down Europeanization was too brief to build a strong coalition in support of RES’. In a similar vein, Davidescu (Chapter 11) characterizes the Europeanization of RES policies in Romania as ‘shallow’, meaning that a fast and very effective transposition of EU directives was later counteracted by ‘non-compliance, creative compliance and policy reversal’. Especially in the post-accession period after 2007, changed opportunity structures had strengthened the proponents of an ambitious support scheme for ‘new’ RES-E, that is, wind and solar power, resulting in the parliamentary adoption of law 220/2008 on the promotion of energy production from RES that significantly strengthened the previous green certificate system. However, neither the grid capacity nor the political system’s regulatory capacity were able to cope with the rapid growth in RES-E generation triggered by the new support scheme. As in the Bulgarian case, a dynamic Europeanization triggered by relatively ambitious EU targets, a political system concerned with the flawless transposition of the EU’s *acquis*, and the emergence of new and beneficial opportunity structures for RES proponents, had led to a steep increase in RES-E production that overstrained the existing grid infrastructure and raised electricity prices. At the latest with the onset of the economic and financial crisis, RES-E opponents gained the upper hand, leading to a partial dismantling of the RES-E support schemes. However, the financial and budgetary strains caused by a successful promotion of RES-E is by no means restricted to the less affluent members of the EU. A pioneer with respect to the dismantling of FITs were the Netherlands who abolished their successful support scheme in 2006, only three years after it came into force. As in the case of Bulgaria and Romania, the main reason was that the support scheme had threatened to become very costly and lacked support in a sector that had traditionally ‘focused on large-scale, centrally produced fossil and nuclear power’ (see Chapter 4 by Hoppe and van Bueren). A similar development can be observed with regard to Spain whose very successful FITs underwent a stepwise dismantling in the aftermath of the economic and financial crisis of 2007/2008 (Chapter 8 by Solorio and Fernandez). With regard to France, Bocquillon and Evrard (Chapter 9) observe that “(i)n 2010, the high level of the solar PV FITs was made responsible for a ‘speculative bubble’ and rising electricity prices, and criticized for favouring technology imports over national industry support. Following a moratorium, the PV FITs was substantially decreased and its gradual reduction made steeper”.

Finally, *horizontal Europeanization* continues to play a role also in this third phase of European RES-E development. On the one hand, the modelling of a French feed-in premium for large facilities based on the British and the new German support schemes (see Chapter 9 by Bocquillon and Evrard) indicates a possible EU-wide diffusion of this instrument in the coming years. In any case, the comparative analysis of RES-E policies suggests that a combination of indirect top-down Europeanization (i.e. the ban of FITs support schemes through the EU guidelines for state aid) and horizontal Europeanization (i.e. the crystallization of best practice within the range of permissible support schemes through processes of cross-national diffusion) might lead to a greater *de facto* harmonization of national support schemes than has been achieved so far.

<<Insert table 15.3 here>>

15.2.4 Summary: Europeanization dynamics in the RES-E sector

Our analysis of the Europeanization of national RES-E policies is in line with findings of the broader Europeanization literature and adds some new insights. At first glance the cross-country comparison reveals patterns that – at least to some extent – resemble the traditional leader-laggard dynamics of environmental policymaking in the EU and its member states. However, the picture becomes considerably more complex if we differentiate between the overall RES policy targets and the concrete instruments used to reach these targets. While, with regard to policy targets, most of the ‘green’ member states have opted for a strategy of pace-setting, trying to upload ambitious national targets to the EU level, these same countries, with regard to policy instruments, have refrained from trying to upload their domestic support schemes to the EU level. Instead, they adopted a strategy of foot-dragging by actively fighting any attempt of an EU-wide harmonization of instruments for RES promotion (see Chapter 3 by Vogelpohl et al. on Germany, Chapter 5 by Dyrhaug on Denmark and Chapter 8 by Solorio and Fernandez on Spain). The reason why these countries refrained from trying to upload their preferred policy design lies in the European Commission’s clearly articulated preference for market-oriented support schemes. Against this background, a strategy of negative coordination aimed at vetoing any kind of harmonization appeared to be a safer option than pushing for harmonization and running the risk that a pro-TGCs coalition backed by the European Commission prevailed. Thus, our cases point to a surprisingly strong influence of the European Commission in a policy domain characterized by intergovernmental rather than supranational logics of policymaking.

A second and still widely unexplored finding of the RES-E case studies in this book relates to the directedness of Europeanization processes. Implicitly, much of the Europeanization literature regards policy development in the European multi-level polity as a one-way-street where regulations in place in a few forerunner countries first spread to other EU member states and then get harmonized across the EU while being continuously ratcheted up throughout this process. The first decade and a half of RES-E promotion matches this pattern. The Spanish example is a case in point (see Chapter 8 by Solorio and Fernandez): early domestic initiatives to support RES-E triggered by the oil crises of the 1970s were strengthened by the EU-driven liberalization of the electricity sector and the resulting structural changes. Spain, in turn, began pushing for ambitious targets in the negotiations leading to the 2001 RES-E directive. Once the directive was adopted, it transformed the beliefs and expectations of domestic actors in such a way that for several years it seemed ‘politically incorrect not to support RES’. Horizontally, the Spanish FIT support scheme – together with the German one – was imitated by various other EU member states. The resulting boost in RES-E generation across the EU, finally, increased momentum for more ambitious and mandatory targets in the 2009 RED directive.

However, as described above, in the wake of the global economic downturn that started in 2007, we observe an increasing opposition to the most effective support schemes, in particular to systems based on high FITs and/or long-term priority access of RES-E to the grid, and a slow, but steady, dismantling of national and even European support schemes. Interestingly, this dismantling of RES-E support schemes seems to follow a similar sequence of Europeanization mechanisms as the previous strengthening and harmonization of RES-E policies. It began with instances of horizontal Europeanization, that is, some ‘pioneer’ countries starting to suspend, weaken, or abolish their support schemes and others subsequently imitating this behaviour – for example when the Romanian government points to Spain and Poland in order to legitimise the dismantling of its own RES-E support policy (Chapter 11 by Davidescu). Then, a combination of bottom-up and top-down Europeanization set in where an increasing number of

countries attempted to upload their preferences for less ambitious (or less specific) policy targets to the European level. Interestingly, our cases show that this uploading of reduced levels of environmental ambition may be accompanied with a strategic downloading of restrictive interpretations of EU rules provided by the European Commission. This has been the case, for example, with Germany that – pressured by a rapidly growing domestic opposition against its FITs and rising electricity prices – readily welcomed the revision of the EU guidelines on state aid for environmental protection and energy to legitimize a partial dismantling of its FITs. As Vogelpohl et al. write: the EU guidelines on state aid 'were a welcome argument for the German government to opt out of FITs in the longer term' (Chapter 3). In other words, while in phases of 'upwards'-Europeanization, member states explicitly state their domestic policy preferences, 'downwards' Europeanization is characterized by 'blame-shifting' and subterfuge.

A third noteworthy finding of our study relates to the mechanism of horizontal Europeanization. There is no consensus in the Europeanization literature whether the horizontal transfer of policies between EU member states should be referred to as Europeanization or not. However, the comparative analysis of the Europeanization of national RES policies in this book makes a strong argument for taking horizontal diffusion processes seriously and conceiving of them as a distinct mechanism of 'horizontal' Europeanization.

Strong support for this argument comes from Germany, the country in our sample that relied most strongly on horizontal Europeanization (see Chapter 3 by Vogelpohl et al.). By being a pioneer and pusher by example in RES-E promotion (and to a lesser degree also in the field of biofuels), Germany, since 1990, successfully managed to cross-load its domestic policy for RES-E promotion to other EU member states while at the same time refraining from trying to upload it to the European level (see above). In doing so, Germany wanted to avoid the watering-down of its ambitious FIT-based support scheme in the course of the EU decision-making and harmonization process. Nevertheless, this strategy had repercussions at the EU level as the European Commission, some member states and domestic, and European industrial lobby groups critically eyed the spread of FITs across the EU (by 2007, more than two thirds of the EU member states had adopted FITs as their main RES-E support scheme). Thus, the horizontal transfer of the German model showed at least two typical traits of Europeanization: first, it resulted in a partial convergence of national RES-E support policies across EU member states, and second, it showed a spill-over effect at the EU level in that opponents of FITs started to lobby for an EU-wide harmonization towards a more market-oriented support scheme based on RES-E quotas and TGCs.

As a consequence, Germany could not simply rely on the horizontal diffusion of its domestic support scheme and ignore developments at the EU level. In order to continue its path and for other member states to be able to adopt similar FIT-based support schemes, Germany had to make sure that any future European policy framework left enough leeway for member states to follow the German example. During the negotiations of both the 2001 RES-E directive and the 2009 RED, Germany successfully forged alliances with other member states to veto the top-down prescription of a certificate-based support scheme. Against this backdrop, Vogelpohl et al. in Chapter 3 conclude that any strategy of 'cross-loading [of] pioneer policies has to be accompanied by the uploading strategy of foot-dragging – that is, avoiding legal harmonization at the supranational level which would compromise the pioneer policy'.

15.3 Patterns of Europeanization in biofuels policy

With regard to the promotion of biofuels, Europeanization has generally set in later and has been less dynamic than in the RES-E domain. This section describes how Europeanization processes have shaped biofuels policy in the EU and its member states whereas a more detailed explanation of the differential impact of Europeanization in the RES-E and the biofuels sector is given in Section 15.5.

15.3.1 Europeanization dynamics related to the negotiation and implementation of the 2003 biofuels directive

As in the RES-E case, direct *top-down Europeanization* played only a limited role in the shaping of member state's biofuels policies. By 2003, when the EU biofuels directive entered into force, most EU member states already had their own support schemes in place so that adaptational pressures resulting from the directive's modest targets were generally low. An exception was the UK where, due to the exploration of North Sea oil, the production and consumption of biofuels had been insignificant. Consequently, the UK adopted a role of a foot-dragger during the entire negotiation process and was very reluctant to transpose and implement the directive once it was adopted (Chapter 6 by Solorio and Fairbrass). Another country that opposed the directive and was reluctant to comply after it was adopted were the Netherlands. Here, as Hoppe and van Bueren observe in Chapter 4, the constraining factor was 'the scarcity of land to grow biofuel crops'.

The main reason why top-down Europeanization played hardly any role in the first phase of biofuels policy was that in the course of negotiations the directive had been considerably watered down through processes of *bottom-up Europeanization*. In particular, the targets that member states finally agreed upon were neither ambitious nor mandatory (see Chapter 2 by Bocquillon and Solorio). In addition, a proposed support scheme, based on reduced rates of excise tax on biofuels, was dropped in the second draft of the directive. The dynamics of bottom-up Europeanization summarized in Table 15.4 reflect these debates.

However, in addition to targets and instruments, a more essential question, that later on became the dominant controversy in biofuels promotion, emerged: serious doubts as to the overall sustainability of biofuels. The dynamics of bottom-up Europeanization in the first and especially in the second phase of biofuels promotion (see Section 15.3.2 below) reflect this. Already in the run-up to the 2003 biofuels directive, Denmark opposed ambitious biofuels policies and targets because it perceived them as environmentally unsustainable (see Chapter 5 by Dyrhaug). At that time, however, countries like Denmark, Germany, France and Italy backed biofuels policy as a golden opportunity to support their domestic agricultural sectors (see Chapter 3 by Vogelpohl et al., Chapter 7 by Di Nucci and Russolillo and Chapter 9 by Bocquillon and Evrard).

Finally, *horizontal Europeanization* played only a minor role in this period. Here, the most important development related to the horizontal diffusion of tax exemptions for biofuels as an instrument to support the production and consumption of biofuels. Interestingly, this process where various member states voluntarily modelled their support schemes on the German and Spanish examples turned to some extent into a functional equivalent to the top-down prescription of support schemes that had previously failed.

<<Insert table 15.4 here>>

15.3.2 Europeanization dynamics related to the negotiation and implementation of the 2009 renewable energy directive

In the second phase of EU biofuels policy, *top-down Europeanization* again played only a minor role. Again, the relative vagueness of the directive combined with the fact that most countries had continued to develop their domestic biofuels policies, strongly limited the adaptational pressures that emerged from the directive. As a result, it was mainly countries like Italy that due to domestic factors had difficulties in developing a coherent national policy (see Chapter 7 by Di Nucci and Russolillo) or a country like Poland that didn't regard biofuels promotion as an environmental, but rather as an agricultural policy (Chapter 10 by Jankowska and Ancygier), that only late and reluctantly complied with the directive.

The dominant issues in biofuels promotion since the mid 2000s were, first, the potential impact of biofuels promotion in the EU on food prices and food security in developing countries, and second, the question whether biofuels can be produced in a sustainable way. These doubts apply in particular to first-generation biofuels. Consequently, from the mid-2000s onwards, *bottom-up Europeanization* mainly centered around the inclusion and design of sustainability criteria and the shift from first-generation to second-generation biofuels. While the Netherlands (Chapter 4 by Hoppe and van Bueren), Germany (Chapter 3 by Vogelpohl et al.) and France (Chapter 9 by Bocquillon and Evrard) acted as pace-setters, Poland wanted to maintain the policy support for first-generation biofuels as it opened a window of opportunity to invest in the agricultural industry and create jobs in the farming sector (see Chapter 10 by Jankowska and Ancygier). Overall, as will be argued in more detail in Section 15.5, the doubts about the ecological sustainability of biofuels and their impact on global food security have shifted the debate from a technical or instrumental one to a moral or ethical one. This shift towards a debate over first principles where 'value conflicts are more important than instrumental considerations of policy design' (Knill 2013, 309) has stifled policy development both at the EU level and domestically. Consequently, *horizontal Europeanization* has played a rather negligible role in EU biofuels policy since 2009, being most important in the cross-national spread of German sustainability criteria in the run-up to the RED (Chapter 3 by Vogelpohl et al.).

<<Insert table 15.5 here>>

15.4 EU RES policy beyond borders

Europeanization studies usually focus on the EU's impact on its member states. In recent years, this focus was complemented by studies looking at the EU's attempt to transfer its policies and institutions to countries beyond its borders. Chapters 13 by Escribano on the Mediterranean Solar Plan and Chapter 14 by Di Lucia the external EU biofuels policy in Mozambique focus on the ways in which ambitious EU RES-E and RES-T policies exert influence on the domestic energy policies of neighbouring and developing countries. As these examples highlight, concepts of '*outward Europeanization*' are still in their infancy and build, similar to *horizontal Europeanization*, on a body of literature on 'policy diffusion', 'policy transfer' and 'external governance' (Börzel and Risse 2012; Delreux and Van Den Brande 2013). The findings of the empirical parts do not substantially differ across the two cases, reflecting the failure of the EU to develop a strategy to influence domestic RES production beyond its borders.

While Germany is recognized as an active leader facilitating the worldwide diffusion of RES and has gained followers for its FITs support scheme around the world, the EU seems to experience problems with establishing a comprehensive leadership strategy in the RES-E sector. This is somewhat surprising given that RES-E deployment across the Mediterranean neighbourhood would actually increase the EU's energy security and help to diversify its energy corridors from Russian supplies, as Escribano shows based on the examples of the Mediterranean Solar Plan (Chapter 13).

Looking at the biofuels case, the EU's capacity to develop a system that ensures the sustainable production of biofuels in developing countries is the crucial issue. Most of the chapters in this book emphasized the rise of critical voices like ENGOs and other sceptical stakeholders that started to campaign against policy support for biofuels due to the risk of negative impacts in countries beyond EU borders. In this context, concerns about the sustainability of biofuels were expressed in terms of food security, land clearing and their CO₂ balance. Yet, the development of the EU's capacity to effectively influence production in developing countries in accordance with EU priorities remains a major challenge, but will probably be a 'necessary condition for biofuels to remain on the post 2020 political agenda in the EU' (see Chapter 14 by Di Lucia).

While our cases are by no means representative and external EU governance in the RES policy domain has not been the key focus of our study, the analysis suggests that outward Europeanization is still far from being a major driver of international policy change – at least in areas such as RES-E and biofuels policy where the EU itself hasn't yet established a clearly defined policy model and member states are still competing to upload their preferred policy design to the European level.

15.5 Explaining the differential success of RES-E and biofuels policies:

One of the findings of our analysis of RES-E and biofuels policies was that the promotion of RES-E has generally been more successful and more sustainable than the promotion of biofuels. How can this imbalance be explained? First and foremost, our case studies point to the fact that domestic capacities for the production of biofuels were very unevenly distributed among EU member states. While a few countries with a strong agrarian sector and large areas of agricultural land such as France, Germany, Italy or Spain were able to produce first-generation biofuels domestically, most member states were forced to import biofuels, mostly from outside the EU. This had an important impact on the constellation of domestic actors. While in the field of RES-E strong domestic actor coalitions formed in most member states that were in support of effective promotion schemes, the same did not happen with regard to biofuels (see for example Chapter 4 by Hoppe and van Bueren and Chapter 5 by Dyrhaug). Only a few countries with a strong agrarian sector with surplus capacities, such as France (see Chapter 9 by Bocquillon and Evrard), saw the emergence of an influential pro-biofuels coalition.

Besides impeding the formation of domestic advocacy coalitions, the scarcity of domestic production capacities and the resulting need to import biofuels from non-EU member states was problematic also in a second way. While the EU decided to increase the share of fuels derived from RES, it wasn't immediately able to set sustainability criteria for their production. Consequently, the growing demand for first-generation biofuels based on energy crops and the resulting competition between the production of food and fuels in non-European countries triggered a fierce public 'food vs. fuels' debate that shed a negative light on the ambitious European biofuels targets. This partly moral, partly economic debate weakened the case for ambitious biofuels quotas and

constituted another obstacle to the formation of strong biofuels advocacy coalitions in the member states (see for example Chapter 5 by Dyrhaug and Chapter 6 by Solorio and Fairbrass).

But even in countries with the agrarian potential to produce biofuels domestically, early RES support policies were adopted in the RES-E field rather than with regard to biofuels. This was the case, for example, in Spain or Italy who, in the wake of the oil crises of the 1970s, took first steps towards RES-promotion (see Chapter 7 by Di Nucci and Russolillo and Chapter 8 by Solorio and Fernandez), but even in Poland measures to promote RES-E preceded attempts to foster biofuels (Chapter 10 by Jankowska and Ancygier). A potential explanation could be that the decision-making powers necessary for RES-E support measures were all concentrated in the energy policy domain while biofuels support would have required the more difficult and time-consuming task of policy coordination between three policy domains – agriculture, transport and energy. The Polish president's veto of the 2002 biofuels law on the grounds that biofuels might be harmful to car engines is a case in point (Chapter 10 by Jankowska and Ancygier). Arguably the most paradoxical driver of RES-E policies was the promotion of nuclear power by various EU member states, especially in the 1970s and 1980s, and its subsequent decline since the late 1980s. At least three pathways of influence can be distinguished here. First, the pioneering role of countries like Denmark and Germany in RES-E promotion cannot be explained without a very strong domestic movement that had evolved in opposition to nuclear power and that pushed for RES-E as a clean and less risky alternative to nuclear energy (see Chapter 3 by Vogelpohl et al. and Chapter 5 by Dyrhaug). Conversely, the weakness of the French anti-nuclear movement vis-à-vis a nuclear-friendly policy network centred around the monopolist *Électricité de France* (EdF) spilled over to the RES-E sector, as Chapter 9 by Bocquillon and Evrard shows. Second, in some countries instruments originally designed to promote nuclear power were opened to RES-E mainly to lend them a 'greener' image. However, as Solorio and Fairbrass (Chapter 6) write with regard to the early British Non-Fossil Fuel Obligation (NFFO), '(o)nce the door was opened (...) it was impossible to impede support for RES-E'. Finally, decisions to phase out nuclear energy in various EU member states in combination with ambitious national climate targets dramatically increased the demand for carbon-free electricity that could only be produced from RES (for Germany see Chapter 3 by Vogelpohl et al. as well as Mez 2012 and Glaser 2012; for Denmark see Chapter 5 by Dyrhaug; for Italy see Chapter 7 by Di Nucci and Russolillo).

Another factor that has favoured RES-E promotion over measures to support biofuels is the former's greater compatibility with the aims of international climate policy. Since the late 1990s, the environmental policy domain has increasingly been marked by a predominance of climate mitigation goals and strategies over all other environmental goals. Consequently, the potential to reduce GHG emissions was a decisive criterion for evaluating and comparing different policy options. While there is little doubt about the GHG reduction potential of RES-E compared to electricity from fossil fuels, the same is not true for biofuels. Land-use change, fertilizer production, agricultural practices and processing are just some of the factors that can impair the GHG reduction potential of biofuels. Consequently, domestic policymakers committed to reducing GHG emissions, regularly gave priority to RES-E policies over biofuels promotion (see, for example, Chapter 6 by Solorio and Fairbrass on the UK).

Policy development may also be constrained by irreconcilable conflicts between opposing actor coalitions. In the case of RES-E promotion, the major divide between EU member states related to the design of support schemes. While the pros and cons of different support schemes were controversially discussed since the 1990s, this didn't

lead to policy stalemate as the EU could simply refrain from harmonizing national support schemes. Being mainly a question of instrument choice it was only marginally relevant for the overall aims and legitimacy of the policy. In contrast, the most controversial issue regarding biofuels, the environmental sustainability of biofuels and the question of global food security, was an inherently moral one that questioned both the goals and the legitimacy of the policy as a whole. Here, disagreement between member states pushing for second-generation biofuels (e.g. the Netherlands, see Chapter 4 by Hoppe and van Bueren) and those with a strong national interest in the production of first-generation biofuels (e.g. Poland, see Chapter 10 by Jankowska and Ancygier) had a greater potential to slow down policy developments at the European and the national levels. Moreover, as in many moral debates, compromise between the opposing views usually doesn't resolve the underlying conflicts.

15.6 The role of domestic actors: vested interests of utilities and the power of ENGOs

While the Europeanization perspective adopted in this book has been crucial for understanding of the complex causal mechanisms of policy change in the interdependent European multi-level polity, one might argue that such an approach underestimates the role of purely domestic factors, in particular of the power, interests, and strategic choices of domestic actors. Although we are convinced that our distinction of three mechanisms of Europeanization has been helpful for detecting the role of domestic actors, in particular in our analysis of bottom-up and horizontal Europeanization, this section will take an independent and comparative look at the role of utilities (or incumbent actors) and ENGOs and their support and opposition in the RES-E and biofuels cases.

RES-E policies developed within an energy system dominated by powerful vested energy interest in fossil fuels and nuclear utilities. The analysis of RES policies in the different EU member states has shown that the extent to which governments can put these vested interests under control determines the success or failure of RES-E development. As the cases of France, Poland and the Netherlands demonstrate, RES-E do not get much attention in a political system, if the utilities do not experience any loss of influence nor power through, for instance, the liberalisation of the energy market. In France and in Poland vested interests of utilities still have a prominent position in the political system. Both have a state-owned centralized power industry, nuclear and coal based, which is hostile to the development of RES-E policy and acts accordingly. They have therefore failed to stimulate the large-scale deployment of RES-E (see Chapter 9 by Bocquillon and Evrard on France and Chapter 10 by Jankowska and Ancygier on Poland).

Utilities do not always adopt a veto position against RES-E from the start, but most of them became active very late, when RES-E started to become competitive on the market and began to replace traditional sources of energy from the electricity mix (see Chapter 8 by Solorio and Fernandez on Spain). Another common characteristic of power utilities is the opposition against FIT schemes and the support of quota models at the domestic and European level. FIT schemes demand a more decentralized energy system with multiple actors, while quotas rather prevent a more fundamental transformation that might be accompanied by losing their dominant position in the energy landscape. Special cases in this context constitute the power utilities in the new eastern member states as these states were obligated to adopt the 'acquis communautaire' in order to comply with the requirements for EU membership. This might explain, why the utilities

in these member states did not oppose top-down Europeanization after their EU accession. However, the question is whether conditionality-induced institutional and policy change in the pre-accession phase has been sustainable. As the case of Bulgaria and Rumania show, its utilities did actually start to oppose RES-E development and blamed RES-E support scheme for increases in prices of electricity some years after the accession (see chapter 12 by Hiteva and Maltby on Bulgaria; chapter 11 by Davidescu on Rumania). This finding contradicts earlier studies that showed that even in the post-accession phase new EU member states maintained their commitment to the policies they had to adopt as a precondition for EU accession (see for example Sedelmeier 2008). Conversely, the behaviour of incumbent actors for the biofuels case has been less visible than for the RES-E case given that they are diffused across three policy domains – agriculture, transport and energy (e.g. farming associations, car producers and oil distributors).

On the other side, ENGOs were crucial for the raise of RES-E policies in the EU and its member states by, first and foremost, contesting the dismantling of the national FITs schemes via a harmonization along TGCs supported by the European Commission. Strong ENGOs together with interest groups and RES-E producers kept pressing for ambitious RES-E policies and targets on the EU and domestic level. Moreover, ENGOs use European institutions like the European Court of Justice and the European Commission to express their concerns in order to bring member states back on the track towards a rapid energy transition (e.g. see chapter 8 by Solorio and Fernandez on Spain; and chapter 11 by Davidescu on Romania). Several case studies have also demonstrated the importance of ENGOs in the process of disclosing the environmental and social impacts of biofuels. They actively campaigned against biofuels and raised awareness for negative impacts in developing countries.

Overall, RES debates in the EU and its member states show that this is a complex policy domain where a constellation of actors from the different levels of governance (i.e. European, national, sub-national) converge. This constellation is characterized by a divergence of interests and values that only accentuates the complexity of the policy process, which in this book has been disentangled by means of adopting a Europeanization perspective. In this regard, this book has to be taken as an invitation to further discuss policy change in the EU's energy sector and the structural and practical barriers that a RES-based energy transition presents in Europe and abroad.

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Table 15.1: Major Europeanization dynamics with regard to the 2001 RES-E directive

Type of Europeanization	Country	Aims and Mechanisms
<i>Top-down</i>	Germany	Indirect Europeanization through EU liberalization policy
	Netherlands	Indirect Europeanization through EU liberalization policy rather than RES-E directive
	Italy	Indirect Europeanization through structural funds and EU liberalization policy
	Spain	Indirect Europeanization through structural funds and EU liberalization policy; change of actors' beliefs and expectations
	France	Indirect Europeanization through EU liberalization policy and weak adaptational pressure from RES-E directive
	Poland	Indirect Europeanization through EU liberalization policy; partial change of actors' beliefs through creation of EU RES research centre in Poland; 'superficial' implementation of RES-E directive
	Romania	Indirect Europeanization through EU liberalization policy; direct Europeanization through transposition of EU acquis
	Bulgaria	Indirect Europeanization through EU liberalization policy; direct Europeanization through transposition of EU acquis
<i>Bottom-up</i>	Germany	Foot-dragger, concerned that EU-wide harmonization might rule out the national FITs scheme
	Netherlands	Incorporate domestic interests in directive (RES-E from waste and biomass)
	Denmark	Defensive forerunner, concerned that EU-wide harmonization might water down national policies
	UK	Pace-setter, pushing hard for harmonization of national support schemes based on TGCs; defensive forerunner with regard to RES definition
	Spain	Pace-setter with regard to RES-E targets, foot-dragger with regard to a harmonized support scheme
	France	Strategic fence-sitter, concerned with keeping implementation costs of RES-E directive as low as possible
<i>Horizontal</i>	Germany	German FITs served as model for other countries' support schemes
	Netherlands	Introduce FITs in order to strengthen domestic RES-E producers vis-à-vis their counterparts in other EU member states
	Denmark	Pioneer in RES-E development which served as abstract model for other countries
	Italy	Shift from a FITs scheme to a TGCs scheme following the UK example
	Spain	Early adopter of FITs which served as model for other countries
	France	Peer pressure and cross-national policy learning led to the adoption of a tender scheme for wind power in 1996 and a FITs in 2000
	Poland	Choice of quota-based support scheme influenced by other member states

Source: Own elaboration based on country case studies.

Table 15.2: Major Europeanization dynamics with regard to the 2009 renewable energy directive (RES-E)

Type of Europeanization	Country	Aims and Mechanisms
<i>Top-down</i>	Italy	Reluctant compliance with RED targets
	France	Compliance with the RED goals
	Poland	Incomplete ('superficial') implementation
	Romania	Reluctant compliance with RED
	Bulgaria	Direct Europeanization through fast, but uncoordinated, implementation of EU directives
<i>Bottom-up</i>	Netherlands	Foot-dragger, protecting interests of Dutch electricity sector
	Denmark	Pace-setter with regard to mandatory national targets
	UK	From pace-setter to coalition-builder with regard to a harmonization of support schemes
	Spain	Foot-dragger regarding an EU-wide harmonization of support schemes; fence-sitter with regard to RES-E targets
	Germany	Foot-dragger regarding an EU-wide harmonization of support schemes; pace-setter with regard to RES-E targets
	France	From foot-dragger with regard to RES-E targets to 'circumstantial' coalition-builder
	Poland	Foot-dragger with regard to RES-E targets
	Romania	Fence-sitting and building tactical coalitions with foot-draggers regarding RES-E targets
<i>Horizontal</i>	Netherlands	Cross-national diffusion of best practice at the subnational level (e.g. from German to Dutch provinces)
	UK	British TGCs serves as model support scheme for various EU member states
	Italy	Adoption of a FITs in addition to existing TGCs scheme, following the example of Spain and Germany
	Germany	German FITs served as model for other countries' support schemes

Source: Own elaboration based on country case studies.

Table 15.3: Major Europeanization dynamics with regard to the 2030 climate and energy framework

Type of Europeanization	Country	Aims and Mechanisms
<i>Top-down</i>	Germany	Indirect Europeanization through EU state aid rules, pre-emptive phasing out of FITs
<i>Bottom-up</i>	Poland	Foot-dragger vetoing binding national RES targets
	Germany	Fence-sitter, giving up resistance against a greater harmonization of support schemes
	Denmark	From pace-setter regarding target ambition to compromise-builder
	UK	Pace-setter for GHG targets, foot-dragger regarding binding national RES targets
	Italy	Cautious pace-setter supporting the proposed GHG and RES targets
	Spain	Fence-sitter due to strong domestic opposition against RES-E policy and dismantling of the national FITs scheme
	France	Pace-setter for GHG targets, foot-dragger regarding ambitious national RES targets
	Romania	Joint foot-dragging with other central and eastern European countries regarding ambitious targets, pushing for side-payments or compensatory measures
	Bulgaria	Fence-sitting due to limited capacity for action
<i>Horizontal</i>	France	Adoption of a feed-in-premium for large facilities, inspired by German and British support schemes
	Romania	Legitimization of dismantling of national RES-E support scheme by referring to similar developments in other member states

Source: Own elaboration based on country case studies.

Table 15.4: Major Europeanization dynamics with regard to the 2003 biofuels directive

Type of Europeanization	Country	Aims and Mechanisms
<i>Top-down</i>	Netherlands	Reluctant compliance with biofuels directive
	UK	Reluctant compliance with biofuels directive
	Poland	Slow compliance with biofuels directive, attempt to reinterpret original EU goals to serve divergent national interests
	Romania	Direct Europeanization through transposition of EU acquis
	Bulgaria	'Superficial' Europeanization due to limited domestic administrative capacities
<i>Bottom-up</i>	Denmark	Foot-dragger due to contradicting domestic RES priorities
	UK	Foot-dragger with regard to mandatory targets and an environmental fuel tax
	Italy	Pace-setter with regard to EU targets in line with domestic industry preferences
	Spain	Pace-setter for biofuels targets and green energy taxation
	France	Pace-setter for ambitious and mandatory biofuels targets
	Germany	Pace-setter with regard to overall goal of biofuels promotion, foot-dragger with regard to restrictive mineral oil excise tax legislation
<i>Horizontal</i>	Spain	Model for the diffusion of tax exemptions for biofuels as a means of implementing the biofuels directive
	Germany	Model for the diffusion of tax exemptions for biofuels as a means of implementing the biofuels directive

Source: Own elaboration based on country case studies.

Table 15.5: Major Europeanization dynamics with regard to the 2009 renewable energy directive (biofuels)

Type of Europeanization	Country	Aims and Mechanisms
<i>Top-down</i>	Netherlands	Reluctant compliance (“wait-and-see strategy”)
	Italy	Reluctant and incoherent ad-hoc compliance
	Spain	Compliance with EU biofuels targets and sustainability criteria
	Poland	Reluctant and late implementation
<i>Bottom-up</i>	Netherlands	Pace-setter for sustainability criteria and a “double count” for 2 nd and 3 rd generation biofuels
	Denmark	Foot-dragger due to incompatibility with Danish RES policies and priorities
	UK	Fence-sitter due to domestic public debate
	France	Pace-setter with regard to biofuels targets and sustainability criteria in accordance with domestic interests
	Poland	Foot-dragger opposing strong sustainability criteria and 2 nd generation biofuels
	Germany	Pace-setter with regard to sustainability criteria
	Romania	Fence-sitting and coalition-building in order to achieve compensation
<i>Horizontal</i>	Germany	Model for sustainability criteria for other countries

Source: Own elaboration based on country case studies.