



INTERNATIONAL
POLITICAL ECONOMY SERIES
SERIES EDITOR: TIMOTHY M. SHAW

New Political Economy of Energy in Europe

Power to Project, Power to Adapt

Edited by
Jakub M. Godzimirski



palgrave
macmillan

International Political Economy Series

Series Editor
Timothy M. Shaw
Visiting Professor
University of Massachusetts
Boston, USA

Emeritus Professor
University of London, UK

The global political economy is in flux as a series of cumulative crises impacts its organization and governance. The IPE series has tracked its development in both analysis and structure over the last three decades. It has always had a concentration on the global South. Now the South increasingly challenges the North as the centre of development, also reflected in a growing number of submissions and publications on indebted Eurozone economies in Southern Europe. An indispensable resource for scholars and researchers, the series examines a variety of capitalisms and connections by focusing on emerging economies, companies and sectors, debates and policies. It informs diverse policy communities as the established trans-Atlantic North declines and ‘the rest’, especially the BRICS, rise.

More information about this series at
<http://www.palgrave.com/gp/series/13996>

Jakub M. Godzimirski
Editor

New Political Economy of Energy in Europe

Power to Project, Power to Adapt

palgrave
macmillan

Editor

Jakub M. Godzimirski
Norwegian Institute of
International Affairs (NUPI)
Oslo, Norway

International Political Economy Series

ISBN 978-3-319-93359-7

ISBN 978-3-319-93360-3 (eBook)

<https://doi.org/10.1007/978-3-319-93360-3>

Library of Congress Control Number: 2018953337

© The Editor(s) (if applicable) and The Author(s) 2019

Open Access Chapter 4 is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>). For further details see license information in the chapter.

This work is subject to copyright. All rights are solely and exclusively licensed by the Publisher, whether the whole or part of the material is concerned, specifically the rights of translation, reprinting, reuse of illustrations, recitation, broadcasting, reproduction on microfilms or in any other physical way, and transmission or information storage and retrieval, electronic adaptation, computer software, or by similar or dissimilar methodology now known or hereafter developed.

The use of general descriptive names, registered names, trademarks, service marks, etc. in this publication does not imply, even in the absence of a specific statement, that such names are exempt from the relevant protective laws and regulations and therefore free for general use. The publisher, the authors and the editors are safe to assume that the advice and information in this book are believed to be true and accurate at the date of publication. Neither the publisher nor the authors or the editors give a warranty, express or implied, with respect to the material contained herein or for any errors or omissions that may have been made. The publisher remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Cover image © Rob Friedman/iStockphoto.com

This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

ACKNOWLEDGEMENTS

This book is one of the deliverables of the EUNOR project, financed by the Research Council of Norway (RCN). The authors and the editor are deeply grateful for this funding, which made publication of this volume possible. The EUNOR project—‘Europe in transition: Small states and Europe in an age of global shifts’—has involved prominent Norwegian and international experts on the EU and its broader interactions. The aim has been to elucidate aspects of EU policy with implications for various groups of countries, focusing on how the EU and small states—including Norway—go about adapting to changing EU, and global, conditions.

Dr Pernille Rieker at the Norwegian Institute of International Affairs (NUPI) has served as project coordinator. In addition, many other members of the project team have provided invaluable comments on earlier drafts of the chapters presented in this volume. In particular I wish to thank Ulf Sverdrup, Kristin Haugevik, Arne Melchior, Nina Græger and Christophe Hillion at NUPI, as well as Finn Arnesen and Frederik Sejersted at the University of Oslo, and many other colleagues, for their comments and inspiration.

The EUNOR Project Energy Work Package has focused on how the EU and other actors with stakes in energy policy have been reacting to the changing framework conditions of the global energy market. How are energy relations between the EU and various groups of actors influenced by the EU’s use of its regulatory and market power? And how have external suppliers of energy to the EU and its member states been dealing with these issues?

This volume is the result of the collective efforts of members of the core EUNOR energy team and the scholars who were invited to contribute to this book, to broaden its geographical scope and provide additional insights into the complex field of EU energy policymaking and its wider impacts. Activities in this Work Package have been coordinated by Dr Jakub M. Godzimirski, Research Professor at NUPI. The core EUNOR energy team included Dr Svein S. Andersen of the Norwegian Business School (BI); Dr Ole Gunnar Austvik, who during the realization of the project divided his time between the Norwegian Business School (BI), the Belfer Center for Science and International Affairs at Harvard Kennedy School and the Inland Norway University of Applied Sciences; Dr Andreas Goldthau from the Central European University in Budapest, who also spent some time during the realization of the project at the Belfer Center for Science and International Affairs at Harvard Kennedy School and is now Professor of International Relations at the Royal Holloway, University of London; Dr Nick Sitter, Professor of Political Economy at the Norwegian Business School (BI) and Professor of Public Policy at the Central European University in Budapest; and finally Dr Indra Overland, Research Professor and Head of the Energy Programme at NUPI.

When after several rounds of deliberation we decided to go for publication of a fully fledged volume in the Palgrave International Political Economy (IPE) series, we co-opted several leading national experts on energy to make contributions and to shed light on national adaptations to EU energy regulatory requirements and expectations. Dr Kirsten Westphal of the Berlin-based Stiftung Wissenschaft und Politik (SWP) has contributed a chapter on Germany's approaches to these questions; the chapter by Dr Aleksandra Gawlikowska-Fyk of the Polish Institute of International Affairs deals with Poland's adaptation; and Dr Vija Pakalkaitė of the Central European University (Budapest) and Joshua Posaner of POLITICO were invited to cover the approaches of the three Baltic states in this context.

My deepest thanks go to all members of the project team for their contributions—without you and your efforts, this volume would never have been possible.

The current form of the book owes very much to Susan Høivik, our long-standing language editor and guide, who has done a great job of removing the linguistic and occasional logical inconsistencies in the ten chapters presented here.

This book could not have been written without the support of many other colleagues. Helge Blakkisrud has—as always—been a great motivator, and others at NUPI have also provided valuable inputs.

Let me also express my gratitude to Tim Shaw, editor of the IPE series, who has again placed his trust in me as an author and an editor. Christina Brian at Palgrave Macmillan has guided us through the editorial process and shown great support at critical junctures; also other Palgrave partners involved in the editorial process have assisted in this work.

That being said, overall responsibility for this volume, and for any editorial shortcomings, rests entirely on my shoulders.

CONTENTS

1	Introduction: The EU and the Changing (Geo)Politics of Energy in Europe	1
	Jakub M. Godzimirski and Ole Gunnar Austvik	
Part I	Inside Out: Projecting EU Rules and Ideas	25
2	Regulatory or Market Power Europe? EU Leadership Models for International Energy Governance	27
	Andreas Goldthau and Nick Sitter	
3	The EU's Strategy Towards External Gas Suppliers and Their Responses: Norway, Russia, Algeria and LNG	49
	Svein S. Andersen and Nick Sitter	
4	EU Climate and Energy Policy: New Challenges for Old Energy Suppliers	73
	Indra Overland	

Part II Outside In: National Adaptations	103
5 Channels of Influence or How Non-Members Can Influence EU Energy Policy	105
Jakub M. Godzimirski	
6 Norway: Small State in the Great European Energy Game	139
Ole Gunnar Austvik	
7 Germany's <i>Energiewende</i>: Climate Change in Focus—Competitiveness and Energy Security Sidelined?	165
Kirsten Westphal	
8 Poland: Coping with the Challenges of Decarbonization and Diversification	195
Aleksandra Gawlikowska-Fyk	
9 The Baltics: Between Competition and Cooperation	215
Vija Pakalaitė and Joshua Posaner	
10 Conclusions: What Has the EU Achieved, and What Is in the Offing?	239
Jakub M. Godzimirski	
Index	255

NOTES ON CONTRIBUTORS

Svein S. Andersen is Professor of Organization Studies at Oslo Business School, BI. He has been Director for Centre for EU Research, University of Oslo, and Chair of Department of Leadership and Organizational Behaviour at Norwegian Business School. He holds a PhD from Stanford University and has been a visiting professor at UC Berkeley, UC Santa Barbara and Centre des Hautes Etudes, Paris. He has authored numerous articles. His 12 books and edited volumes include *Energy Union. Europe's New Liberal Mercantilism?* (Palgrave Macmillan, 2017).

Ole Gunnar Austvik is Professor of Political Economy at Inland University Norway, Lillehammer, and a senior researcher at the Norwegian Institute of International Affairs (NUPI). He has been an M-RCBG senior fellow at the John F. Kennedy School of Government, Harvard University, and has also been affiliated with Statistics Norway and BI Norwegian Business School. He holds a Doctorate in Political Science from the University of Oslo, a Master's degree in Public Administration (MPA) from Harvard and a Master's degree in Economics (cand.oecon) from the University of Oslo. Austvik has written numerous articles and books within the fields of international political economy, European integration, and global energy economics and policy.

Aleksandra Gawlikowska-Fyk is Head of the Energy project at the Polish Institute of International Affairs (PISM). She holds a PhD in Economics and an MA in Administration. Her research interests concentrate on the EU's energy policy, with particular emphasis on the internal market, both in electricity and gas, as well as EU energy security and the

concept of Energy Union. Her recent work focused on the research project ‘Nuclear Energy in Poland: Balance Sheet and Future Outlook’, which resulted in the report covering findings of public opinion research, both quantitative and qualitative, taken by the PISM. As a former employee of the Energy Regulatory Office, she dealt with the issues of domestic energy sector and regional electricity markets.

Jakub M. Godzimirski holds a PhD in Social Anthropology. Since 2012 he has been a research professor at the Norwegian Institute of International Affairs (NUPI), where he had previously been since 1995 a senior research fellow at the Department of Russian and Eurasian Studies. In 2009/2010 he headed the NUPI Energy Programme; in 2012/2013 he headed the Research Group on European Affairs. In 2014 he returned to the Research Group on Russia, Eurasia and the High North at NUPI. His research interests include Russian and European foreign and security policy, with a focus on the role of energy and Russia’s relations with the West. He has authored, co-authored, edited and coedited several volumes on these issues and published many peer-reviewed articles and book chapters with leading academic publishers such as Palgrave Macmillan, Routledge and Ashgate. His most recent major publications include *Russian Energy in a Changing World. What Is the Outlook for the Hydrocarbons Superpower?* (2013), *EU Leadership in Energy and Environmental Governance: Global and Local Challenges and Responses* (Palgrave Macmillan, 2016) and *The Political Economy of Russian Aluminium. Between the Dual State and Global Markets* (Palgrave Macmillan, 2018).

Andreas Goldthau is Professor of International Relations at Royal Holloway, University of London, and Director of the [Centre of International Public Policy](#). He is also an associate with the [Geopolitics of Energy Project](#) at Harvard University’s Belfer Center for Science and International Affairs and a fellow at the [Global Public Policy Institute](#). His publications include *The Politics of Shale Gas in Eastern Europe. Energy Security, Contested Technologies and the Social License to Frack* (2018), the *Handbook of the International Political Economy of Energy and Natural Resources* (2018), *Energy Union. Europe’s New Liberal Mercantilism?* (Palgrave Macmillan, 2016), *A Liberal Actor in a Realist World: The EU Regulatory State and the Global Political Economy of Energy* (2015), *The Global Energy Challenge: Environment, Development and Security* (Palgrave Macmillan, 2015), the *Wiley Handbook on Global Energy Policy* (2013), *Dynamics of Energy Governance in Europe and Russia* (Palgrave Macmillan,

2012), *Global Energy Governance: The New Rules of the Game* (2010), *Imported Oil and US National Security* (2009) and *OPEC* (2009).

Indra Overland is Research Professor and Head of the Energy Programme at the Norwegian Institute of International Affairs (NUPI). He holds a PhD from the University of Cambridge and has since published extensively on energy issues. His recent publications include ‘[Energy: The Missing Link In Globalization](#)’, ‘[Future Petroleum Geopolitics](#)’ and ‘[Financial Sanctions Impact Russian Oil](#)’. He has been quoted by the *Financial Times*, *The Wall Street Journal*, *Newsweek*, *Associated Press*, *Bloomberg*, *Hokkaido Shimbun*, *Toronto Star*, *Het Financieele Dagblad*, *Radio Free Europe*, *The Diplomat*, *The Conway Bulletin*, NRK Dagsrevyen, Urix, TV2, *Dagens Næringsliv*, *Verdens Gang*, *Dagbladet*, *Aftenposten* and *Mandag Morgen*.

Vija Pakalkaitė is a Doctor of Philosophy in Political Science and graduated in 2017 from the Central European University (CEU) in Budapest. At CEU, she wrote a PhD thesis about the Europeanization of the natural gas sectors in Hungary, Lithuania and Romania. She holds a major in public policy and a minor in social science methodology. Pakalkaitė holds a Master of Arts in Economic Policy in Global Markets from the same university in 2012. She also holds a Master of Science in Economic Policy and a Bachelor in Communications from Vilnius University in Lithuania. During her studies at CEU, Pakalkaitė worked at the Bank of Lithuania on the country’s euro adoption and was a trainee in the cabinet of Maroš Šefčovič, the Vice President of the European Commission in charge of the Energy Union. She was also a visiting researcher at the Oxford Institute for Energy Studies in England in 2016 and Fraunhofer-Institut für System- und Innovationsforschung (ISI) in Germany from 2016 to 2017. Pakalkaitė’s current main research interests are energy policy and security of supply, especially in the natural gas markets of the EU. She also does research on the electricity sector and its transition to renewable sources, as well as the EU Emissions Trading System (EU ETS).

Joshua Posaner completed a doctorate at the Free University of Berlin looking at the terms of long-term gas contracts from external suppliers to four Central European countries. He holds an MA from the School of Oriental and African Studies at the University of London and a BA from the University of Greenwich. Posaner’s current research interests include energy networks and the transition in the transport sector to digitization and automation. He works as a journalist.

Nick Sitter is Professor of Political Economy at BI Norwegian Business School and Professor of Public Policy at the Central European University. Before obtaining his PhD from the London School of Economics, he worked as a political consultant in the gas industry. His research interests include European integration, regulatory politics and EU energy markets. His work on European integration and energy policy has been published in several journals, including the *Journal of European Public Policy*, *Journal of Common Market Studies* and *Journal of European Integration*. Sitter is the co-author, with Andreas Goldthau, of *A Liberal Actor in a Realist World: The EU Regulatory State and the Global Political Economy of Energy* (2015).

Kirsten Westphal is a senior associate at the German Institute for Politics and Security in Berlin (SWP). In the Global Issues Division, she works on international energy relations and energy security issues. Her expertise is in global energy issues and security of supply (oil and gas), renewables, international energy governance, nonconventional oil and gas, and German and EU foreign energy relations with the US, Russia, Caspian region, MENA and emerging powers Brazil, China, India and South Africa.

ABBREVIATIONS

AA	Association Agreement
ACER	Agency for the Cooperation of Energy Regulators
AEA	Annual Emission Allocation
AEB	Association of European Businesses
AEEP	Africa–EU Energy Partnership
AP	Action Plan
AST	Augstsprieguma tīkls (Latvian Transmission System Operator)
Bcm	billion cubic metres
BEMIP	Baltic Energy Market Interconnection Plan
BNetzA	The Regulatory Authority (Bundesnetzagentur)
BP	British Petroleum
BRELL	Belarus, Russia, Estonia, Latvia and Lithuania Energy Ring
CBCA	Cross-Border Cost-Allocation
CCS	Carbon Capture and Storage
CEC	Council of the European Communities
CEF	Connecting Europe Facility
CEN	Continental Energy Network
CEO	Chief Executive Officer
CESEC	Central and South Eastern Europe Connectivity
CETA	Comprehensive Economic and Trade Agreement
CIEP	Clingendael International Energy Programme
CIS	Commonwealth of Independent States
CNPC	Chinese National Petroleum Company
CSDP	Common Security and Defence Policy
DENA	The German Energy Agency
DG	Directorate General

EC	European Commission
ECT	Energy Charter Treaty
EE	Eastern Europe
EEA	European Economic Area
EEA	European Environment Agency
EEAS	European External Action Service
EEC	European Economic Community
EEPR	European Energy Programme for Recovery
EEZ	Exclusive Economic Zone
EFTA	European Free Trade Association
EGS	European Global Strategy
EIA	Energy Information Agency
EIB	European Investment Bank
Elering	Estonian Electricity and Gas Transmission System Operator
ENP	European Neighbourhood Policy
ENTSO-E	European Network of Transmission System Operators for Electricity
ENTSO-G	European Network of Transmission System Operators for Gas
EP	European Parliament
ESA	EFTA Surveillance Authority
ESDP	European Security and Defence Policy
ETS	Emissions Trading System
EU	European Union
FDI	Foreign Direct Investment
FEP	First Energy Package
FSRU	Floating Storage and Regasification Unit
FTA	Free Trade Agreement
FU	Forsyningsutvalget, the Supply Committee (Norway)
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GFU	Gassforhandlingsutvalget, the Gas Negotiation Committee (Norway)
GHG	Greenhouse Gases
GIPL	Gas Interconnector Poland–Lithuania
IEA	International Energy Agency
IFI	International Financial Institution
IISS	International Institute of Strategic Studies
IPEEC	International Partnership for Energy Efficiency Cooperation
IPS/UPS	Integrated/Unified Power Systems
IRENA	International Renewable Energy Agency
ITRE	Committee on Industry, Research and Energy, European Parliament

JINR	Joint Institute for Nuclear Research
JV	Joint Venture
Litgrid	Lithuanian Electricity Transmission System Operator
LITPOL	Lithuania Poland Grid Interconnector
LNG	Liquefied Natural Gas
MFA	Ministry of Foreign Affairs
MOU	Memorandum of Understanding
MPE	Ministry of Petroleum and Energy (Norway)
NATO	North Atlantic Treaty Organization
NCS	Norwegian Continental Shelf
NDC	Nationally Determined Contributions
NOC	National Oil Company
NP IRT	Round Table for Cooperation with the European Union
NPM	New Public Management
NTNU	Norwegian University of Science and Technology
NUPI	Norwegian Institute of International Affairs
NVE	Norges Vassdrags- og Energidirektoratet (Norwegian Water Resources and Energy Directorate)
PCA	Partnership and Cooperation Agreement
PCI	Projects of Common Interest
PGNiG	Polskie Górnictwo Naftowe i Gazownictwo
PSE	Polskie Sieci Elektroenergetyczne (Polish Power System)
REN21	Renewable Energy Policy Network for the 21st Century
SAWS	State Administration of Work Safety
SDFI	State's Direct Financial Interest
SEM	Single European Market
SEP	Second Energy Package
SGC	Southern Gas Corridor
SM	Single Market
tcm	thousand cubic metres
Tcm	trillion cubic metres
TEC	Thermoelectric Production Unit
TEN-E	Trans-European Networks for Energy
TEP	Third Energy Package
TFEU	Treaty on the Functioning of the European Union (Lisbon Treaty)
TOP	Take or Pay
TPA	Third-Party Access
TSO	Transmission System Operator
UCTE	Union for the Coordination of the Transmission of Electricity
UK	United Kingdom
UN	United Nations

UOKiK	Urząd Ochrony Konkurencji i Konsumentów (Office of Competition and Consumer Protection)
USA	United States of America
USD	US dollars
USN	University of Southeast Norway
WTO	World Trade Organization

LIST OF FIGURES

Fig. 2.1	Models of EU external energy governance	41
Fig. 3.1	Share of EU gas import, by source. (Source: Authors' calculations, data from Eurostat)	51
Fig. 3.2	Norway's gas exports to the EU, 2004–2015. (Source: Data from Eurostat)	57
Fig. 3.3	Export of Russian gas to the EU 2004–2015, bcm/year. (Source: Data from Eurostat)	61
Fig. 3.4	Algeria's gas exports to the EU, bcm/y. (Source: Data from Eurostat)	64
Fig. 3.5	Global LNG exports to the EU. (Source: Authors' calculations, data from Eurostat ('Others' = Trinidad & Tobago, Peru, Oman, Russia, Equatorial Guinea, Egypt, Libya, USA, Malaysia, UAE and Australia, in descending order for 2015))	65
Fig. 4.1	EU28 coal, oil and gas imports by origin, recalculated as terajoules, by country of origin (data source: Eurostat, 2017a)	75
Fig. 4.2	Cost of electricity in European countries, in purchasing power standardized currency units, adjusted for taxes (data source: Eurostat, 2017b)	87
Fig. 7.1	<i>Energiewende</i> target architecture	169
Fig. 10.1	Conceptual framework	244

LIST OF TABLES

Table 3.1	Key importers of Norwegian gas in EEA area, 1994–2016	58
Table 4.1	Major exporters to the EU	76
Table 5.1	Key external suppliers of energy to the EU, 2015	108
Table 5.2	Number of registrants with interests in energy from key external energy suppliers, as of late August 2016, EU Transparency Register	112
Table 5.3	Key Norwegian and Russian energy lobbyists and their use of Twitter, as of 30 December 2017	122
Table 7.1	Actors and attitudes in German energy policy	174
Table 8.1	Poland: gross domestic consumption of energy, 1990–2015 (% of total consumption)	196
Table 9.1	Key energy market indicators in the Baltic countries	217
Table 10.1	Energy-related risks among top five risks in terms of likelihood/impact (WEF The Global Risks Reports 2008–2018)	250



CHAPTER 1

Introduction: The EU and the Changing (Geo)Politics of Energy in Europe

Jakub M. Godzimirski and Ole Gunnar Austvik

EU energy policy seeks to achieve three main goals: to secure its energy supplies, make the energy system more sustainable and promote EU economic competitiveness through an energy policy that will not impact negatively on the EU's ability to compete with other global centres of economic power (Commission of the European Communities, 2006; European, 1995; European Commission, 2000, 2006, 2014a, 2014b, 2014c; European Commission Directorate-General for Energy, 2010). Combining all three goals has proven difficult, and the EU has had to adapt to changing geopolitical, market and environmental conditions by modifying its approaches (Bressand, 2012, 2013; Goldthau & Witte, 2010; Grätz, 2012; Jong, Linde, & Smeenk, 2010; Micco, 2014). The EU faces huge challenges with respect to security of supply: it must import more than

J. M. Godzimirski (✉)

Norwegian Institute of International Affairs (NUPI), Oslo, Norway

e-mail: jmg@nupi.no

O. G. Austvik

Norway University, Lillehammer, Norway

e-mail: ole.gunnar.austvik@kaldor.no

© The Author(s) 2019

J. M. Godzimirski (ed.), *New Political Economy of
Energy in Europe*, International Political Economy Series,
https://doi.org/10.1007/978-3-319-93360-3_1

50 per cent of its energy; since 2013, all EU member states have become dependent on energy imports. Here is essential to be able to deal effectively with different types of external energy suppliers—Norway (a member of the European Economic Area (EEA)), Russia (an external imperial power deeply involved in the EU gas and oil market) and states that sell fossil fuels at the borders of the EU (Algeria, Libya, LNG suppliers).

In this volume, we ask:

- How the EU can project its power—regulatory or market—beyond and within its borders?
- How do external suppliers and member states respond to these EU attempts?

We focus on two key external actors, Norway and Russia, viewed in the broader context of the EU's external energy relations as well as on several member states representative of the whole EU—one European great economic and political power, Germany; one mid-size EU power with a specific approach to energy policy, Poland; and three small EU members facing specific energy-related challenges.

Norway's strategies vis-à-vis the EU and its successes and failures in energy policy are particularly pertinent to the current challenges facing European integration, for three reasons.

- First, Norway is the EU's most important partner in the regional energy relationship between the EU and Russia.
- Second, analysis of Norway's relationship with the EU can bring out important dynamics of relevance to the EU's relations with other non-member states, including Russia and other external suppliers of energy to the Union.
- Finally, the broader dynamics in the EU–Norway relationship can offer lessons that have become increasingly salient with the UK poised to leave the EU, not least because the UK will have to establish a regime for managing its energy relations with the EU.

In addition, all external suppliers of fossil energy will have to cope with the challenge of decarbonization, which is the long-term goal of the EU. Some of them, like Norway, are well positioned to transit smoothly to a new, greener energy reality; others, Russia among them, may suffer heavy losses with the decarbonization of the European energy

market. How these external actors respond to the challenges and seek to influence the EU's energy choices is therefore of high interest in this broader context.

The EU's capacity to project power beyond its borders depends also on the internal cohesion of the EU and on its ability to influence the energy policies of member states. Member states may have energy preferences not necessarily compatible with those of the EU and may build bilateral energy relations directly with some external suppliers of energy in ways not always in line with EU priorities. The national energy policies of member states and their strategies for adapting to EU energy goals deserve closer academic scrutiny, as they may provide important clues to the EU's chances of constructing a common energy policy that can combine the wider EU goals with national priorities.

This volume originates in the research project 'Europe in Transition – Small States in an Age of Global Shifts' (EUNOR), funded by the Research Council of Norway and conducted between 2014 and 2017. As the EU has become important policy agenda setter and economic actor (Hirschman, 1970; Sandholtz, 2004; Sweet & Sandholtz, 1997), the EUNOR project examined how states balance between autonomy and integration in their dealings with the EU. The empirical focus was on Norway as an example of a small state, and on legal, economic, security and energy relations between Norway and the EU, examining how Norway has coped with the autonomy–integration tension in its relations with the EU in these four crucial areas (Egeberg & Trondal, 1999; Eriksen, 2015).

With the relationship between the EU and the outside world growing more complicated, the questions that the project originally set out to address have become increasingly significant. The crisis in Ukraine appears to have caused substantial damage to EU–Russia relations, thereby impacting on EU security as well as energy policy. Hopes that Russia could transform itself into a liberal democracy have failed to materialize, and the future of Russia–EU relations does not look bright. The decision of British voters to leave the EU, taken on 23 June 2016, has triggered a dynamic that may in the longer term lead to the demise of the European integration project itself.

Further, the still-ongoing migration crisis poses practical as well as political problems. The EU and its member states need to find ways of dealing with the massive influx of forced and economic migrants. Moreover, the

crisis has led to growing tensions within the EU, fuelling xenophobic, populist and anti-establishment sentiment in Europe.

And finally, the election of Donald Trump as the 45th president of the USA has added a new challenge to the EU external relations: how to deal with an American president whose actions may undermine the axiological foundations of the transatlantic partnership?

One of the work packages of the EUNOR project focused on Norway's energy relations with the EU. Although a small state in demographic and geographic terms, Norway is a medium-sized—even great—power in terms of energy, supplying one-third of the gas and more than 10 per cent of the oil imported by the EU, making it the second-largest external supplier of energy to the EU market (Godzimirski, 2014b).

The special energy relationship between Norway and the EU has therefore been central in a project aimed at mapping various aspects of relations between Norway and the EU (Archer, 2005). In fact, Norway's energy relationship with the EU is more balanced than the case is in many other areas (Austvik & Claes, 2011; Ministry of Foreign Affairs Norway, 2012). For infrastructural, market and geographical reasons, Norway depends on access to the EU energy market—and that gives the EU a certain leverage in its relations with Norway. On the other hand, Norway is viewed as a highly reliable and almost indispensable energy supplier—which in turn provides it with a certain structural energy power (to learn more about structural power see Strange, 1988) to promote its own interests in relations with the EU (DIFI Norway, 2016). That being said, the energy game played in Europe involves more actors than only Norway and the EU itself (Godzimirski, 2014a). The study of the nature of Norway's energy relations with the EU calls for a comparative approach, with examination of the EU's other energy relations as well.

In this study of energy relationships between the EU and other actors with stakes in EU energy policy, the case of Norway provides a background against which to paint a more complete picture of EU energy relations with three groups of energy actors: key external energy suppliers who are not EU members; EU member states that must pursue their national energy policies in line with EU regulations; and Norway, which is not formally an EU member but generally follows the rules set by the EU due to its participation in the European Economic Area (EEA) (Godzimirski, 2014a).

EU RULES AND STATE ADAPTATIONS

International economic and political integration makes the nation state subject to various types of regulation, legal and normative. Questions otherwise dealt with by national policies become subject to legal and normative considerations, as they must be handled in accordance with the rules set by supranational frameworks (Arnesen, 1995, p. 659). Trade liberalization and political integration reduce the freedom of each individual nation to choose policies independently of other states. The functioning of the international and European system, in terms of decision-making as well as markets, becomes increasingly important in the formulation of national policies. National independence to formulate policies based on domestic preferences alone must be balanced and often changed to reap the benefits of conducting trade in larger markets—not least, to achieve higher economic standards of living.

The response of states to this loss of independent policy-making can be passive or defensive, aggressive and exploitative—or constructive and cooperative. States may decide to opt for greater integration or higher levels of autonomy in response to these developments. Large states can often be more aggressive and exploitative than small states because of asymmetric relations. For the small country, such an asymmetric interdependence may turn into something close to one-sided dependence. Small states have economies that depend on fewer export products than do large states, and they often have no significant share in international or EU markets. Small states are dependent states and require functional international institutions and law—which are normally shaped by large states (Panke, 2010, 2012; Toje, 2011). Small states are generally defensive in policy-making, with a narrower range of interests than larger states (Fox, 1959, p. 3). Large countries like Germany and France, for example, obviously have more influence over EU policy than do small member states and find it easier to work at shaping the rules of the game to their own benefit. When common institutions are established, they constrain and shape national room for political manoeuvre.

How to understand these processes? *Neo-functionalists* and *constructivists* argue that the merging of identities and preferences will gradually lead to increasingly greater political similarities across countries and the transfer of power to common institutions to make it work so as to benefit all.

By contrast, *intergovernmentalists* and *institutionalists* explain policy differences by the fact that many nation states and domestic institutions resist and undermine the gradual transfer of power out of their domains. Neo-functionalists and constructivists point to the potential for further integration: neo-functionalists through functional and political spillovers, constructivists through changes in identities and preferences that result from cooperation over time. Institutionalists and intergovernmentalists are more sceptical to spillovers and socialization alike: they consider institutional and policy integration unlikely to change in the foreseeable future (Moravcsik, 2001, p. 163) and hold that policy will continue to be defined by interstate processes. They see the bargaining and consensus-building techniques of international organizations as refinements of intergovernmental diplomacy that enable important domestic political autonomy to be retained rather than as involving the ultimate transfer of power to a supranational entity.

The compatibility between EU and domestic policy is increasing with structural convergence between institutions and policy (Cowles, Caporaso, & Risse-Kappen, 2001) but also through dynamic processes of adaptation. Europeanization has in this context been defined as ‘a set of processes through which the EU political, social and economic dynamics become part of the logic of domestic discourse, identities, political structures and public policies’ (Ladrech, 2001, p. 3). Similarly, globalization has been defined as ‘the norms, institutions, and laws that support global capital accumulation along neo-liberal principles’ (Laxer, 1995). These processes can lead to ‘re-evaluation of interests, re-formulation of conflicting issues and adoption of new perspectives or knowledge’ (Claes, 2002, p. 300). Europeanization and globalization exert influence on legal matters, institutions and norms and ideology as well.

While politics shape markets, markets also shape politics. In some cases, international markets are more important in determining the national political room for manoeuvre than are supranational regulations. The more a country is exposed to international economic challenges, the more likely is its policy to converge with other countries with the same international exposure, due to market integration and competition; and domestic change can be achieved only through international cooperation. International competition and supranational harmonization of laws and regulations push governments to solve common problems through common institutions and solutions—as with the construction of the EU internal energy market (Drezner, 2001, p. 60; Goldthau & Sitter, 2014; Padgett, 1992).

In a global context, the EU Single Market (SM) is the most advanced area for international economic integration, with policies intervening deep into domestic policies. The basic idea derives from international trade and microeconomic theory and neoclassical ‘contestable market’ principles. It assumes full factor mobility (capital and labour) within and across nations, combined with the exploitation of economies of scale (and scope), making firms bigger in absolute terms. Large firms often encounter competition at the European and global levels but may become dominant at the national level. Ideally, the SM is intended to operate as one perfectly competitive market with the same rules and regulations across the entire Community. SM policy is to be based on competition law and regulation, and (only) correct market distortions (e.g. caused by externalities or monopoly power), resulting in consistency between company desires to maximize profits and the EU desire to maximize European welfare—as in a perfectly competitive national market (Austvik, 2015; Train, 1991). As the EU is also a customs union, there is no traditional trade policy (tariffs, quotas) between participating nations. To prevent hidden and indirect trade barriers, comprehensive harmonization at the EU level of domestic policies affecting competition must be part of the policy package, if it is to function.

However, as national situations and interests are not fully shared within and between countries, a *de facto* common or fully harmonized policy is not in the interest of all. The EU common market aims at maximizing the benefits for the entire integration area, not for the benefit of each nation state, industrial sector, region and institution. Diverging income distributional and historical situations, levels of economic development, endowment with resources and institutional and cultural path dependencies and identities all indicate that the best overall societal outcome might differ from the one considered most efficient in economics (Austvik, 2015, pp. 117–121). Lefebvre and Victorisz note that the economically efficient pursuit of one particular goal may conflict with the realization of another equally or more important social interest: economic efficiency for its own sake cannot be a policy goal (Lefebvre & Victorisz, 2007). This applies also to EU energy policy, where concerns for sustainability and security of supply need to be balanced against the question of economic competitiveness (Bressand, 2012; Folkerts-Landau, 2013). National interests concerning degrees of autonomy and sovereignty, conflicting interests between and within countries, and inertia in markets and politics serve to slow down integration and policy convergence processes aimed at making economic,

political, social and cultural institutions and policies more similar, but not equal, over time (Bennett, 1991). They also influence the room for manoeuvre available to each country that strives to adapt to changing rules and market conditions, and here the transfer of policy-relevant knowledge through negotiations, interpretations and adaptations is important (Dolowitz & Marsh, 2000, p. 15).

The scale and scope of changes and challenges in policy goals and practices tend to increase with the number of countries and sectors involved (Holzinger & Knill, 2005, p. 778), and EU energy policy coordination is no exception. In complex matters—and energy policy is indeed complex—with considerable differences among member states, policy for integration areas may readily become more concerned about form and process than hard realities. However, if pushed too hard, the integration process may come to a halt or experience long-term setbacks—and countries will find ways of circumventing undesired change. Reactions against overly rapid market integration (with resultant unemployment and low wages in the losing sectors) are part of the reason for Brexit and anti-elite sentiments in other European countries. We can also note that the EU push for a more climate-friendly energy mix has resulted in resistance from Poland—a country whose energy policy is dealt with in Chap. 8 of this volume and that is well endowed with local coal resources.

In such situations, if rules and regulations stay the same, member states may seek to change the real content of the common policy through delays, innovative interpretation and implementation, and/or take compensatory domestic steps or put forward new requirements. Large countries have a greater say in international affairs and organizations than do small states—as shown in Chap. 7 of this volume, on German energy policy in the EU context. However, also small states may achieve their objectives, because they often benefit from a ‘complex interdependence’, where societies are connected in multiple ways and the issue hierarchy is absent or weak (Keohane & Nye, 1977, pp. 24–29). Peter Katzenstein (1985) argues that small countries—despite having less influence on the rules of the game—may adjust more readily to changes because it is easier for them to reach consensus-oriented decisions in corporate domestic structures.

That would indicate that a small country might be more dynamic than a large one when it comes to decision-making. This ability of small states to adapt is well documented in the case of Lithuania, which had to reorient itself after the closure of the Ignalina Nuclear Power Plant (INPP) and managed to make itself less dependent on Russian gas by building an LNG

terminal. On the other hand, small countries may also face coordination problems, as shown in Chap. 9 of this volume, on the energy policies of the Baltic countries. As Diana Panke (Panke, 2010, 2012) notes, in international organizations small states can punch above their weight if they are selective in negotiations and concentrate their capacities on the main issues rather than attempting to revise the established order (Vital, 1967, p. 134). Norway's adaptation to EU rules through the EEA—discussed in detail in Chap. 6—is a clear example of a country that is relatively small (albeit endowed with certain important resources) but has consistently managed to punch above its 'standard' weight.

When situations or interests differ, the processes of policy harmonization may trigger diverging adaptation responses aimed at creating different actual policy content. EU rules and regulations have a direct *de facto* harmonizing impact on the formal political practices of all member states, but same formal rules need not be translated into the same *de facto* policies with full political convergence across countries. If an EU policy is weakly formulated (e.g. in a directive), member states have greater opportunities to be innovative in interpreting and adapting to its formalities than when the formulation process is stronger (as in a direct regulation or law). If rules and regulations are relatively weak or opaque, domestic policy can more easily be revised to bring it in line with the formalities while simultaneously enabling the pursuit of important national (and not EU) goals. An optimal strategy for an individual country could be as follows: first, enter into economic integration with relevant partners to reap the benefits of free trade, while, second, optimize, formulate and promote national sectoral policies whenever relevant and possible to avoid the perceived disadvantages.

What defines a state's ability to deal with the EU, however, is not only physical size or importance for the EU in some fields but also its capabilities and powers, in absolute or relative terms. Depending on how it defines the importance of its relationship with the EU and how capable it is of shaping this relationship in accordance with national interests, a state may opt for greater autonomy or deeper integration. This autonomy-versus-integration dynamics is a characteristic feature of the situation developing in and around the EU. 'Autonomy' is here understood as the right to greater self-government; by contrast, 'integration' entails a higher degree of interconnectedness, contact density, shared rules, institutions and resources, as well as the extent of trust and shared values. When deciding between autonomy and integration, states must consider their capacity to

stand alone and their capabilities. Those that have chosen to become full-fledged EU members may seem to have opted for greater integration. However, also within the EU, there are various possibilities for retaining some autonomy—for instance, by not joining the Euro zone or by seeking exemption, as in the cases of Denmark and the UK. And—as the recent Brexit experience has clearly shown—this process of integration, harmonization and convergence can also be reversed, and states may decide to leave the EU in their pursuit of greater autonomy.

States with a broader set of capabilities may consider a broader set of options on this autonomy-versus-integration scale, because better capabilities increase the number of policy options available within and outside of the EU. Such capabilities may involve the control of strategic territories and resources, economic resources and financial assets, political resources such as status and reputation, as well as administrative resources, knowledge and expertise. Having greater organizational capabilities—understood here as the ability to sequence and combine different forms of policies in order to achieve specific policy goals—increases the scope of strategic choices to be made by states in choosing between greater autonomy and deeper integration/adaptation to the rules set by supranational bodies.

WHAT MAKES ENERGY INTERESTING IN THIS CONTEXT?

Energy policy is a relevant topic here, for several reasons. Firstly, the international political economy of energy has undergone dramatic changes in recent years. Geopolitics appears to play a greater role in regional and global oil and gas trade than only a decade ago. This change began with Russia's increasing assertiveness as the oil price rose above the 100-dollar mark in 2008, combined with the rise of shale oil and gas that made the USA all but self-sufficient in fossil fuels. The collapse of the oil price in 2014/2015, Saudi Arabia's new strategy of defending its market share and increasingly tense and controversy-ridden relations between the West and Russia—all have further strengthened the geopolitical dimension of energy in Europe. How can the EU and its 28 member states deal with this new challenge?

The second important reason is the role played by the EU in setting regional and global energy agendas and the process of adaptation of the EU and its member states to shifting internal and external conditions. The EU's overall international profile and grand strategy have long been liberal. The EU has focused on building institutions for international

trade and on improving the workings of international markets, also regarding energy. Today, however, with other great powers taking a more geopolitical (or realist) approach to energy cooperation, the EU's liberal approach to energy policy has been placed under considerable strain (Goldthau & Sitter, 2015; Smith, 2011). The Energy Union proposal launched in 2015 was designed to deal with this by defining both internal and external EU energy priorities in this new more demanding international environment (Egenhofer, Genoese, & Dimitrova, 2014; European Commission, 2015; Szulecki, Fischer, Gullberg, & Sartor, 2016). In practice, however, the adoption of this formal framework for realization of EU's energy policy has created new framework conditions—both for member states that must deliver on the energy goals set by the EU and for external energy suppliers that must adapt to this new situation. For non-EU states, participation in a liberal trade-oriented European integration project can be a means of securing a stable and predictable regional regime for energy governance. It therefore came as no surprise that Norway and the UK joined Germany as the main defenders of a liberal approach to external EU energy policy in 2015 and 2016.

The third important reason for paying special attention to energy policy is the growing tension between the necessity of meeting energy needs and dealing with the challenges posed by climate change (Egenhofer, Marcu, Núñez-Ferrer, Genoese, & Elkerbout, 2015; Heubaum & Biermann, 2015; Sartor et al., 2014; Slominski, 2016). The EU has been a key promoter of moving the global energy system in a more environment-friendly direction as a means of mitigating the risks related to climate change—but even within the EU, there is no consensus on how to do this, as the EU and its member states must depend on the import of fossil energy from beyond EU borders to meet their energy needs. Moreover, most of these energy imports come from countries that do not necessarily share the EU's climate concerns. As main exporters of fossil fuels, they are more interested in promoting their own fossil-fuel-related interests than in supporting the development of a greener energy system that could undermine their market position and create massive problems for their own economic, political and social development. The EU is the main global importer of energy (World Trade Organization WTO, 2010), so how the EU deals with its import dependence on fossil fuels, like building a more sustainable energy system within the EU and by promoting the development of a greener energy system beyond its borders, will have direct impacts on the main exporters of fossil fuels supplying the EU market today.

Finally, the fourth reason why the EUNOR project has focused on energy policy has to do with the stipulated focus on issues relevant for Norway as a country with a special form of relationship with the EU. Norway has remained outside the EU, but its membership in the European Economic Area (EEA) makes it a special case: a small country that has decided to address the integration-versus-autonomy dilemma by building a special relationship with its most important trade and political partner: the EU. A key element on the Norwegian–EU interest map is very close energy cooperation between the two entities. To a large extent, it is the EEA framework that shapes Norwegian energy policy (see in Chap. 6 of this volume)—but the choices made by Norwegian policy-makers also impact on EU energy policy, as Norway is the second most important energy supplier to the EU.

In addition, Norway has several specific features that make it particularly interesting in terms of state capacity for acting in the international environment. On the one hand, Norway is a classical small state with limited potential and capabilities that influence its many policy choices. On the other hand, Norway has a set of special capabilities that enable it to punch above its weight in the international sphere. Due to various historical, political and social developments, Norway has achieved organizational capabilities greater than many other classical small states, in Europe and elsewhere. In addition, Norway enjoys relatively high international status through its leading international role as provider of foreign aid and its self-appointed role as international peacemaker. Finally, Norway's natural resource endowment—especially petroleum, hydropower and maritime resources—and its ability to manage these resources in a balanced manner have put Norway in another category than that of 'classical small state'. Its endowment with energy resources has provided many opportunities while also bringing many challenges. That Norway has control of these resources, how it exercises that control and its geographical proximity to the EU that thirsts for energy supplies to meet its own energy needs—all these factors have made Norway an important energy partner for the EU.

But, as mentioned, Norway is not the only non-EU member to build an energy relationship with the EU. We need to examine Norway's energy relations with the EU in a broader context. This book aims at addressing three crucial questions: (1) How the EU projects its regulatory power and ideas beyond its borders and how this may influence the energy policies of its main external suppliers? (2) How these external suppliers adapt to changing framework conditions for their energy cooperation with the EU?

(3) How the EU's ability to project its regulatory power and ideas informs the policy choices of external suppliers of energy as well as the choices made by its member states, which must find ways of adapting to changing framework conditions, as defined by the EU actions and also by changes on the global energy market?

Norway and other major exporters of energy are in a very special position regarding the issues emerging in their energy relations with the EU, because they are faced with not one but two paradigmatic shifts at the same time:

1. The paradigmatic and structural shift underway in the international system, with possible negative consequences for smaller states, making them more vulnerable in a situation when there are no clear rules of the game—or the rules of the game are put under pressure or are about to be changed. In an international system where power seems to matter more than norms and institutions, smaller states like Norway and many other energy exporters become increasingly vulnerable and may feel more insecure. More focus on power politics means less security for smaller and weaker actors, especially those possessing resources in demand by others.
2. The paradigmatic shift and transition in the energy sector where Norway and other external suppliers of energy have a special interest due to their role as key suppliers of energy to the EU, which has embarked on policies aimed at reducing and potentially eliminating the role of fossil fuels.

With these factors—and others—in mind, the contributors to this volume examine how the relationship between autonomy and integration in the field of energy in the narrow Norwegian–EU and broader extra-EU and intra-EU contexts has evolved and is likely to evolve in the years to come. We investigate this relationship from two perspectives. The chapters in Part I gauge the possible impact of the EU's ability to project its regulations and ideas on its external suppliers of fossil energy—including Norway, which, as a non-EU member, is an 'external' supplier of energy but must also follow the rules set by the EU, due to its strong EU affiliation via the EEA. The chapters in Part II examine how external suppliers of energy and member states respond to EU rule-setting: in the case of external suppliers of energy, by seeking to influence the EU policy-making process (Chap. 5), and through various adaptation strategies implemented by member and quasi-member states (Chaps. 6, 7, 8 and 9).

The main exporters of fossil fuels to the EU, except for Russia, are all relatively small states, at least in economic terms. As many of them depend on access to the EU energy market for infrastructural, economic and political reasons, their situation is influenced by the EU's approaches towards energy and energy cooperation. To deal with their dependence on access to EU energy market, they may adopt various strategies—seeking closer integration by accepting EU-imposed rules and becoming rule-takers or seeking greater autonomy, by opposing EU regulations and looking for opportunities elsewhere. Or they may try to influence EU energy policy through various channels, in hopes of defending their narrower national and broader interests as exporters of fossil fuels.

The EU member states find themselves in an uncomfortable position in relating to EU energy regulations. They are at the same time rule-takers and rule-makers: rule-takers, because they are expected to follow EU regulations when designing and implementing their energy policies; rule-makers, because they participate in shaping EU energy policy through the process of experimentalist governance characteristic of the current stage of development of EU internal governance (Eberlein, 2010; Eberlein & Kerwer, 2004; Sabel & Zeitlin, 2010). As EU members, they are expected to seek integration rather than autonomy, but there are also examples of member states who do not play by EU rules (Marcinkiewicz & Tosun, 2015), seeking to loosen the EU grip or—as with the UK—to achieve greater autonomy by withdrawal from the EU.

And then there is the case of Norway, which finds itself in the somewhat awkward liminal position of belonging and not belonging to the EU at the same time. In theory it has structural energy power that makes it an important energy partner for the EU and could thus presumably seek greater autonomy and refuse to accept EU energy regulations. In practice, Norway appears to follow the path of greater integration by adopting EU regulations almost automatically.

How the EU can project its regulatory and market power beyond its borders is, however, also a function of how the member and quasi-member states, like Norway, act upon and react to internal and external energy-related challenges. As noted, all EU member states today depend on energy imports to meet their energy needs, so the external dimension of EU energy policy ranks high on national agendas. Member states choose various approaches and respond differently to 'the EU as a whole' priorities as well as to external energy challenges.

How the national policies of member and non-member states are influenced by the EU's shifting energy priorities and how these priorities are in turn reformulated and influenced by the interaction between the EU and member and non-member states are the issues in focus in Part II of this book. Here we explore how external actors can attempt to influence EU energy-policy choices and how several countries—Norway, a quasi-EU member and at the same time a key external energy supplier; Germany, the key European energy player and champion of energy transition; Poland, the key energy 'reactionary' power in the EU; and the three Baltic states which, until recently, formed an energy island within the EU—have been reacting to changing EU policy priorities and intra- and extra-EU energy influences. Although this may seem a relatively narrow geographical focus on developments in the northern part of the EU, we take up more general questions in connection with the creation of regional energy markets as a step towards establishing a well-functioning internal energy market in the EU. Many of the issues that must be dealt with at this specific regional level are of great importance for the realization of EU goals and the creation of regional energy markets more generally—so the analyses presented in this volume have relevance not only for a limited group of countries but more broadly as well.

STRUCTURE OF THE BOOK

The contributions to this book explore two key perspectives on the changing EU energy agenda and the EU's energy interactions. The first is an 'inside-out' perspective, which investigates how the EU acts vis-à-vis external actors (Chaps. 2 and 3) and how the EU's decarbonization agenda may influence the future of energy relations with current and future suppliers of fossil fuels (Chap. 4). The second perspective is the 'adaptation perspective', on how external actors can seek to influence EU energy policy without having direct access to EU policy-making forums (Chap. 5) and how member states adapt to external and internal (EU) policies and a changing energy world (Chaps. 6, 7, 8 and 9). Thus, this volume speaks to three different debates: on the EU's external power as energy agenda setter and regulator and its use of its regulatory and market power; on the role of several types of states, including small states with some structural energy power, like Norway, in the international political economy of energy in today's European context; and on the ongoing

debate about the impact of EU energy-policy choices on adaptation strategies of member states as well as on non-member states with high stakes in the EU energy market.

In examining EU energy policy and its impact on non-member and member states, the chapters focus on the overall energy picture but also pay attention to several issues that figure high on the agenda today: the construction and future of the single internal electricity and gas market, the future of the Energy Union as a tool in EU energy policy towards external suppliers as well as internally in the EU, the future of nuclear energy in Europe following Germany's decision to close down its nuclear facilities, the role of coal and renewable energy in EU and national energy mixes and the role of climate concerns in the process of shaping the energy policies of the EU and its member states.

In order to address all these important questions, we have divided the book into two parts and ten chapters. The first chapter—this Introduction—presents the rationale for the book and key concepts employed in our examination of the energy relationships between the EU and various groups of actors.

Part I, titled 'Inside Out: Projecting EU Rules and Ideas', examines how the EU is able to project its energy power beyond its borders and the possible impacts on the energy policies of external suppliers.

Chapter 2, by Andreas Goldthau and Nick Sitter, examines how the EU deals with the diversity of external actors that supply the EU with energy—ranging from Norway (a small open economy) to Russia (still feeling some lost-empire phantom pains)—by combining the development of a comprehensive rule-based regime for its regional and international trade in gas with reliance on regulation and market power, strategically applied. This chapter examines the range of policy tools that the EU has developed to deal with the various challenges it faces. The authors analyse four possible EU approaches to the governance of regional gas markets, arguing that the policy tools deployed in the last decade and the ongoing Energy Union debate amount to a form of 'external governance à la carte' in the energy sector. Although their main focus is on gas, they provide clues relevant also to other areas of EU energy cooperation with external actors.

Chapter 3, by Svein S. Andersen and Nick Sitter, scrutinizes the policy tools used by the EU in dealing with four major challenges it has faced in regional and international energy trade over the last two decades—how to integrate Norway into the Single European Market, how to cope with the dominant position of Russia in parts of the EU market, how to secure

a steady supply of Algerian gas and how to take advantage of the rising global trade in Liquefied Natural Gas (LNG). The authors focus on four approaches to the governance of regional gas markets that seem to pose the greatest challenges as far as security of supply is concerned, also in political terms. That the EU and some member states plan to respond by seeking even closer cooperation with Russia has become a central issue in the ongoing debate on the future of the EU's energy policy and its relations with its key external energy suppliers. How the EU tackles this issue may have crucial importance for internal and external EU energy policies for many years to come.

Chapter 4, by Indra Overland, deals with the crucial question of how the EU decarbonization agenda is to be translated into EU energy policy and how this process may influence the position of the EU's current fossil-fuel suppliers. Here the EU is seen as an energy agenda policy setter whose decisions on the development of a greener energy system will influence the energy policies of its member states and also those of external energy suppliers. Overland begins by examining the EU climate targets and their implications for the future energy mix and imports from beyond EU borders. Norway's options as the EU's second most important supplier of fossil fuels are then discussed and compared with the three other major suppliers: Algeria, Angola and Russia. Overland holds that Norway is better positioned than these other suppliers to handle the energy transition, not least because the EU sees natural gas from Norway as a politically safe source of energy that can help to facilitate the transition towards a greener energy system. Norway's hydropower resources and possibilities for functioning as a 'green battery', including pumped energy storage, are also options attractive to the EU. Further, Overland notes, the transition towards a greener energy system in Europe cannot be achieved over night, so Norway and other external suppliers will have time to adopt measures to strengthen their positions in the emerging new energy context. However, some suppliers of fossil energy will have to cope with far graver consequences, as they have fewer realistic options for dealing with the greening of the EU energy system.

Part II is titled 'Outside In: National Adaptations' and contains five chapters. Chapter 5, by Jakub M. Godzimirski, studies the responses and strategies of external suppliers seeking to influence EU energy policy-making processes to promote their own energy interests. Non-member states, including quasi-member Norway, must turn to various formal and informal channels to influence EU energy policy and promote their own

national energy interests within the EU. This chapter presents a more complete picture of the set of interactions that we believe contribute to shaping EU energy policy. Godzimirski examines the policy instruments and channels of influence available to external suppliers for promoting their energy interests in their most important energy customer: the EU.

Chapter 6, by Ole Gunnar Austvik, examines in detail Norway's strategies for adapting to shifting EU energy priorities and changes on the European and global energy markets. Drawing on theories of convergence, integration and international trade, and the small-state literature, Austvik drafts the scale and scope of a small state's room for political manoeuvre in an international economic integration area. His chapter explores how Norway shifted from conflict to innovative adaptation when challenged by EU law and regulations—eventually accepting formal changes in policy design and national law but without sacrificing too much real political content. National vision, the capacity to find ways of implementation, new policies to compensate for lost ones, as well as more state ownership—these have all been important as continuing national priorities. Austvik also discusses possible lessons to be drawn from Norway's EU energy experiences.

Chapter 7, by Kirsten Westphal, examines how Germany, the greatest consumer and importer of energy in Europe, has been adapting its energy policies to EU expectations by addressing the three key objectives—security of supply, sustainability and competitiveness. Westphal pays special attention to how Germany has sought to tackle several tensions characteristic of its approach. The *Energiewende* has not yet brought the expected results, and there are voices in Germany and elsewhere urging a more cautious approach to energy transition: the costs of *Energiewende* may prove prohibitively high in a short-term perspective and damaging to the country's ability to compete internationally. Further, Westphal discusses the impacts that Germany's decision to terminate the operations of its nuclear sector by 2022 may have on its future energy priorities and external energy relations and examines controversial issues such as the debate on Nord Stream 2 pipeline. Key questions addressed in this chapter are thus Germany's adaptation to policies proposed by the EU, the country's role as the most important strategic energy policy agenda setter in the EU context and the actual implementation of policy by national decision-makers.

Chapter 8, by Aleksandra Gawlikowska-Fyk, examines how Poland, the greatest consumer and importer of energy among the new EU members,

has adopted energy-related measures to adapt its energy policies to EU expectations by addressing the three key objectives—security of supply, sustainability and competitiveness. Gawlikowska-Fyk pays special attention to how Poland has coped with decarbonizing its economy and diversification of supplies, after joining the EU in 2004. Shifting Polish governments have pursued the country's energy interests in various way, but three issues have been recurrent themes in the energy debate: (1) the use of locally available energy resources, that is, Poland's highly polluting hard coal and lignite, (2) the question of diversification of supplies aimed at reducing energy dependence on Russia and (3) considerable scepticism towards the green European energy agenda. With the new government elected in 2015, the issues of energy security and diversification away from Russia again top the policy agenda, but there are also some new tones in the debate. This chapter takes up not only traditional questions pertaining to energy security but also how the negative environmental impacts of energy use at the local level may influence choices in energy policy and the question of reducing the role of imported oil in the country's transport sector—a key driving force behind the transition towards electromobility recently proposed by the Polish authorities.

Chapter 9, by Vija Pakalkaitė and Joshua Posaner, examines the strategies adopted by the three Baltic countries—Lithuania, Latvia and Estonia—for dealing with shared energy-related challenges. These include their energy insularity within the EU, heavy energy import dependency on Russia, lack of sources of sustainable energy and finally their need to adapt to the EU regulatory framework. Separately, the three are small energy consumers: only by working together can the Baltic countries create a more significant energy market that could ensure more energy security and benefits for end-consumers. In recent years, they have demonstrated an impressive ability to reduce their energy vulnerability under the harsh economic conditions caused by the economic crisis. They have embarked on energy projects that have put an effective end to their energy insularity by linking their electricity systems with those of neighbouring countries onshore and offshore and by building an LNG terminal to secure supplies from new sources, making them much less dependent on Russia. However, many of these projects are the result of single country-level efforts, not truly pan-Baltic cooperation. Pakalkaitė and Posaner examine how, faced with the wish to compete and the need to cooperate, the energy policies of the three Baltic countries have been driven by the adoption of the EU regulatory framework and their national responses to

energy security challenges. The authors also consider how the realization of national and EU policy goals in this exposed energy region has helped to strengthen energy cooperation at the regional level and how this may facilitate the creation of a more flexible internal EU energy market that can help all member states to cope with their energy-related challenges.

Chapter 10, by Jakub M. Godzimirski, presents the main policy-relevant conclusions from the book and sums up the EUNOR project findings. The project aimed at examining the relationship between the EU and three groups of energy actors: (1) key external energy suppliers that face a new energy reality emerging in Europe and must adapt to changing market and regulatory conditions as well as to the new EU energy and climate agenda, (2) EU member states that must internalize the ideas on the future of the European energy system promoted by the EU and learn how to manoeuvre in the changing regulatory and market environment and (3) Norway—a small European country but also an important European energy power that has built its relations with the EU by combining elements of membership with those characteristic of an external energy power and that has emphasized the importance of retaining some autonomy in shaping its own energy agenda.

REFERENCES

- Archer, C. (2005). *Norway Outside the European Union: Norway and European Integration from 1994 to 2004*. London/New York: Routledge.
- Arnesen, F. (1995). *Statlig Styring og EØS-Rettslige Skranker*. Oslo, Norway: Universitetsforlaget.
- Austvik, O. G. (2015). Negotiating and Adapting Optimal Integration: Transnational Economic Integration and the Public Management Challenge. In S. Kim, S. Ashley, & W. H. Lambright (Eds.), *Public Administration in the Context of Global Governance* (pp. 116–137). Cheltenham, UK: Edward Elgar Publishing.
- Austvik, O. G., & Claes, D. H. (2011). *EØS-Avtalen og Norsk Energipolitikk* (EEA Agreement and Norwegian Energy Policy). <http://europautredningen.no/Rap8-energi.pdf>. Retrieved December 15, 2017.
- Bennett, C. J. (1991). What Is Policy Convergence and What Causes It? *British Journal of Political Science*, 21(2), 215–233.
- Bressand, A. (2012). *The Changed Geopolitics of Energy and Climate and the Challenge for Europe. A Geopolitical and European Perspective on the Triple Agenda of Competition, Energy Security and Sustainability* (Clingendal Clingendal International Energy Programme).

- Bressand, A. (2013). The Role of Markets and Investment in Global Energy. In A. Goldthau (Ed.), *The Handbook of Global Energy Policy* (pp. 15–29). London: Wiley-Blackwell.
- Claes, D. H. (2002). The Process of Europeanization: Norway and the Internal Energy Market. *Journal of Public Policy*, 22(3), 299–324.
- Commission of the European Communities. (2006). External Energy Relations – From Principles to Action. COM(2006) 590 Final. Brussels. <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:52006DC0590>. Retrieved December 16, 2017.
- Cowles, M. G., Caporaso, J. A., & Risse-Kappen, T. (2001). *Transforming Europe Europeanization and Domestic Change*. Ithaca, NY/London: Cornell University Press.
- DIFI Norway. (2016). *Utenforskapets Muligheter. Om Norsk Påvirkning Innenfor EØS* https://www.difi.no/sites/difino/files/utenforskapets_muligheter_om_norsk_pavirkning_innenfor_eos_difi-rapport_2016-07.pdf. Retrieved December 16, 2017.
- Dolowitz, D. P., & Marsh, D. (2000). Learning from Abroad: The Role of Policy Transfer in Contemporary Policy-Making. *Governance*, 13(1), 5–24.
- Drezner, D. W. (2001). Globalization and Policy Convergence. *International Studies Review*, 3(1), 53–78.
- Eberlein, B. (2010). Experimentalist Governance in the European Energy Sector. In C. F. Sabel & J. Zeitlin (Eds.), *Experimentalist Governance in the European Union: Towards a New Architecture* (pp. 61–78). Oxford, UK: Oxford University Press.
- Eberlein, B., & Kerwer, D. (2004). New Governance in the European Union: A Theoretical Perspective. *Journal of Common Market Studies*, 42(1), 121–141.
- Egeberg, M., & Trondal, J. (1999). Differentiated Integration in Europe: The Case of EEA Country, Norway. *Journal of Common Market Studies*, 37(1), 133–142.
- Egenhofer, C., Genoese, F., & Dimitrova, A. (2014). Making the Most of Energy Union. *CEPS Commentary*. Brussels: CEPS. <http://www.ceps.eu/system/files/Energy%20Union.pdf>. Retrieved December 16, 2017.
- Egenhofer, C., Marcu, A., Núñez-Ferrer, J., Genoese, F., & Elkerbout, M. (2015). EU Climate and Energy Governance: There's More to It Than Meets the Eye. *CEPS Commentary*. Brussels, Belgium: CEPS. <https://www.ceps.eu/system/files/EU%20Climate%20and%20Energy%20Governance.pdf>. Retrieved December 16, 2017.
- Eriksen, E. O. (2015). *The European Union's Non-Members: Independence Under Hegemony?* London/New York: Routledge.
- European, C. (1995). *An Energy Policy for the European Union*. Luxembourg/Lanham, MD: Office for Official Publications of the European Communities/UNIPUB.
- European Commission. (2000). *Green Paper – Towards a European Strategy for the Security of Energy Supply* (E. Commission Ed.). Brussels: European Commission.

- European Commission. (2006). *Green Paper. A European Strategy for Sustainable, Competitive and Secure Energy*. Brussels: European Commission.
- European Commission. (2014a). *European Energy Security Strategy. Communication from the Commission to the European Parliament and the Council*. http://ec.europa.eu/energy/doc/20140528_energy_security_communication.pdf. Retrieved December 16, 2017.
- European Commission. (2014b). *In-Depth Study of European Energy Security*. http://ec.europa.eu/energy/doc/20140528_energy_security_study.pdf. Retrieved December 16, 2017.
- European Commission. (2014c). *A Policy Framework for Climate and Energy in the Period from 2020 to 2030. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions*. http://ec.europa.eu/energy/doc/2030/com_2014_15_en.pdf. Retrieved December 16, 2017.
- European Commission. (2015). *Energy Union: Advancing the Integration of European Energy Markets*. IP/15/5142. Brussels: European Commission. http://europa.eu/rapid/press-release_IP-15-5142_en.htm. Retrieved December 16, 2017.
- European Commission Directorate-General for Energy. (2010). *European Energy and Transport – Trends to 2030: Update 2009*. Retrieved from http://ec.europa.eu/energy/observatory/trends_2030/doc/trends_to_2030_update_2009.pdf. Retrieved December 16, 2017.
- Folkerts-Landau, D. (2013). *Energiewende 2.0 – Don't Risk Competitiveness*. http://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD000000000324468/Energiewende+2_0+-+don%27t+risk+competitiveness.PDF. Retrieved December 16, 2017.
- Fox, A. B. (1959). *The Power of Small States: Diplomacy in World War Two*. Cambridge, UK: Cambridge University Press.
- Godzimirski, J. M. (2014a). *Mapping Eu Countries' Relationships with Energy Suppliers. GR:EEN Policy Brief*. University of Warwick. http://www2.warwick.ac.uk/fac/soc/csgr/green/papers/policybriefs/green_policy_brief_godzimirski_eu_countries_relations_with_energy_suppliers_final.pdf. Retrieved December 16, 2017.
- Godzimirski, J. M. (2014b). *The Norwegian Energy Security Debate*. In E. Moe & P. Midford (Eds.), *Common Challenges, National Responses: The Political Economy of Renewable Energy and Energy Security in Japan, China and Northern Europe* (pp. 116–136). London/New York: Palgrave Macmillan.
- Goldthau, A., & Sitter, N. (2014). *A Liberal Actor in a Realist World? The Commission and the External Dimension of the Single Market for Energy*. *Journal of European Public Policy*, 21(10), 1452–1472.
- Goldthau, A., & Sitter, N. (2015). *A Liberal Actor in a Realist World: The European Union Regulatory State and the Global Political Economy of Energy*. Oxford, UK: Oxford University Press.

- Goldthau, A., & Witte, J. M. (Eds.). (2010). *Global Energy Governance: The New Rules of the Game*. Berlin, Germany/Washington, DC: Global Public Policy Institute/Brookings Institution Press.
- Grätz, J. (2012). Unconventional Resources: The Shifting Geographies and Geopolitics of Energy. In D. Möckli (Ed.), *Strategic Trends 2012. Key Developments in Global Affairs* (pp. 79–102). Zurich, Switzerland: Center for Security Studies.
- Heubaum, H., & Biermann, F. (2015). Integrating Global Energy and Climate Governance: The Changing Role of the International Energy Agency. *Energy Policy*, 87, 229–239.
- Hirschman, A. O. (1970). *Exit, Voice, and Loyalty: Responses to Decline in Firms, Organizations, and States*. Cambridge, MA: Harvard University Press.
- Holzinger, K., & Knill, C. (2005). Causes and Conditions of Cross-National Policy Convergence. *Journal of European Public Policy*, 12(5), 775–796.
- Jong, D. d., Linde, C. v. d., & Smeenk, T. (2010). The Evolving Role of LNG in the Gas Market. In A. Goldthau & J. M. Witte (Eds.), *Global Energy Governance: The New Rules of the Game* (pp. 195–220). Berlin, Germany/Washington, DC: Global Public Policy Institute/Brookings Institution Press.
- Katzenstein, P. J. (1985). *Small States in World Markets: Industrial Policy in Europe*. Ithaca, NY: Cornell University Press.
- Keohane, R. O., & Nye, J. S. (1977). *Power and Interdependence: World Politics in Transition*. Boston, MA: Little, Brown.
- Ladrech, R. (2002). Europeanization and Political Parties: Towards a Framework for Analysis. *Party Politics*, 8(4), 389–403.
- Laxer, G. (1995). Social Solidarity, Democracy and Global Capitalism. *Canadian Review of Sociology/Revue canadienne de sociologie*, 32(3), 287–313.
- Lefebvre, L., & Vietorisz, T. (2007). The Meaning of Social Efficiency. *Review of Political Economy*, 19(2), 139–164.
- Marcinkiewicz, K., & Tosun, J. (2015). Contesting Climate Change: Mapping the Political Debate in Poland. *East European Politics*, 31(2), 187–207.
- Micco, P. d. (2014). *The EU's Energy Security Made Urgent by the Crimean Crisis*. Brussels: European Parliament. [http://www.europarl.europa.eu/RegData/etudes/briefing_note/join/2014/522338/EXPO-AFET_SP\(2014\)522338_EN.pdf](http://www.europarl.europa.eu/RegData/etudes/briefing_note/join/2014/522338/EXPO-AFET_SP(2014)522338_EN.pdf). Retrieved December 16, 2017.
- Ministry of Foreign Affairs Norway. (2012). *Utenfor Og Innenfor: Norges Avtaler Med EU* (Outside and Inside: Norway's Agreements with the EU). NOU: Vol. NOU 2012:2. Oslo, Norway: Ministry of Foreign Affairs Norway. <http://www.regjeringen.no/pages/36797426/PDFS/NOU201220120002000DDDPDFS.pdf>. Retrieved December 10, 2017.
- Moravcsik, A. (2001). Federalism in the European Union: Rhetoric and Reality. In K. Nicolaidis & R. Howse (Eds.), *Federal Vision: Legitimacy and Levels of Governance in the United States and the European Union* (pp. 161–189). Oxford, UK: Oxford University Press.

- Padgett, S. (1992). The Single European Energy Market: The Politics of Realization. *JCMS: Journal of Common Market Studies*, 30(1), 53–76. <https://doi.org/10.1111/j.1468-5965.1992.tb00418.x>.
- Panke, D. (2010). *Small States in the European Union: Coping with Structural Disadvantages*. Aldershot, UK: Ashgate Publishing Group.
- Panke, D. (2012). Small States in Multilateral Negotiations. What Have We Learned? *Cambridge Review of International Affairs*, 25(3), 387–398.
- Sabel, C. F., & Zeitlin, J. (Eds.). (2010). *Experimentalist Governance in the European Union: Towards a New Architecture*. Oxford, UK: Oxford University Press.
- Sandholtz, W. (2004). *European Integration and Supranational Governance*. Oxford, UK: Oxford University Press.
- Sartor, O., Spencer, T., Bart, I., Julia, P.-E., Gawlikowska-Fyk, A., Neuhoﬀ, K., et al. (2014). The EU’s 2030 Climate and Energy Framework and Energy Security. *Climate Strategies*. http://www.iddri.org/Publications/Rapports-and-briefing-papers/CS%20IDDRI%20EU%202030%20framework_energy%20security.pdf. Retrieved October 10, 2017.
- Slominski, P. (2016). Energy and Climate Policy: Does the Competitiveness Narrative Prevail in Times of Crisis? *Journal of European Integration*, 38(3), 343–357.
- Smith, M. E. (2011). A Liberal Grand Strategy in a Realist World? Power, Purpose and the EU’s Changing Global Role. *Journal of European Public Policy*, 18(2), 144–163.
- Strange, S. (1988). *States and Markets*. London/New York: Pinter Publishers.
- Sweet, A. S., & Sandholtz, W. (1997). European Integration and Supranational Governance. *Journal of European Public Policy*, 4(3), 297–317. <https://doi.org/10.1080/13501769780000011>.
- Szulecki, K., Fischer, S., Gullberg, A. T., & Sartor, O. (2016). Shaping the ‘Energy Union’: Between National Positions and Governance Innovation in EU Energy and Climate Policy. *Climate Policy*, 16(5), 548–567.
- Toje, A. (2011). The European Union as a Small Power. *Journal of Common Market Studies*, 49(1), 43–60.
- Train, K. (1991). *Optimal Regulation: The Economic Theory of Natural Monopoly*. Cambridge, MA: MIT Press.
- Vital, D. (1967). *The Inequality of States: A Study of the Small Power in International Relations*. Oxford, UK: Clarendon Press.
- World Trade Organization WTO. (2010). *World Trade Report 2010. Trade in Natural Resources*. http://www.wto.org/english/res_e/publications_e/wtr10_e.htm. Retrieved October 12, 2017.

PART I

Inside Out: Projecting EU
Rules and Ideas



CHAPTER 2

Regulatory or Market Power Europe? EU Leadership Models for International Energy Governance

Andreas Goldthau and Nick Sitter

INTRODUCTION

By 2018 the world of energy had been through a series of changes in the course of only a few years that amounted to a fundamental shift in the international political economy of energy. The EU's position as a net

The authors would like to thank the participants of the NUPI's EUNOR workshop and of the LSE TransCrisis workshop for valuable feedback on earlier versions of this chapter.

A. Goldthau (✉)

Royal Holloway, University of London, Egham, UK

Belfer Center for Science and International Affairs, Harvard Kennedy School, Cambridge, USA

e-mail: Andreas.Goldthau@rhul.ac.uk

N. Sitter

BI Norwegian Business School, Oslo, Norway

Central European University, Budapest, Hungary

e-mail: Sittern@ceu.edu

© The Author(s) 2019

J. M. Godzimirski (ed.), *New Political Economy of Energy in Europe*, International Political Economy Series, https://doi.org/10.1007/978-3-319-93360-3_2

importer of oil and gas had not changed dramatically—but its internal market had. International oil and gas markets fragmented in the 2010s: first with China pursuing an energy strategy that involved trading in parallel to the open oil markets, then with the oil price collapse of late 2014 and—in Europe—with the emergence of a gas market increasingly shaped by spot trading rather than long-term contracts. Moreover, Russia's annexation of Crimea in 2014 dramatically soured the EU's relationship with its biggest gas supplier and cast the gas disputes with Ukraine a few years before in a geopolitical light. The EU responded with its 2015 proposal for an Energy Union—an initiative that placed security of supply at the top of the energy agenda. However, just as the EU began confronting a more assertive neighbour, serious cracks emerged in its internal unity. The election of right-wing populist governments in Poland and Hungary and their challenges to liberal democracy and the rule of law divided the EU, limiting its ability to elaborate a strategy for regional leadership. The UK government's decision to invoke Article 50 in March 2018, and leave the EU in two years, made the problem even more acute, tilting the balance between advocates of liberal and mercantilist approaches to EU power further in the favour of the latter. By the spring of 2018, the question of how the EU can exert leadership in international energy policy had become more pressing than ever. How, then, can we conceptualize the EU's approach to external energy governance?

The answer goes to the heart of a long-standing debate on which type of 'power' the European Union represents. On one hand, this debate has produced a considerable literature on the EU as a 'normative power', which both argues and recommends that the EU exercises power primarily by influencing or changing international norms and standards (Bickerton, 2011; Bretherton & Vogler, 2006; Manners, 2006; Sjursen, 2006a, 2006b; Smith, 2004; Whitman, 2011) rather than by seeking to enhance its hard-power capabilities (Howorth & Menon, 2009). A different strand of literature holds that the EU's international influence and 'actorship' is very much a function of leveraging its 'market power' (Birchfield, 2015; Damro, 2012, 2015) in order to achieve external policy goals. A third set of works examines 'how EU rules travel' internationally and finds that the EU represents a 'regulatory power', a halfway house between a market power approach and normative power (Bradford, 2016; Lavenex, 2014). Finally, and building on the idea that the EU is primarily a regulatory state, some scholars have argued that there exists a grey area between a rule-based and a coercive approach and that the EU has come to embrace an approach that effectively amounts to a selective, and to some extent also strategic, use of

its regulatory policy toolbox (Goldthau & Sitter, 2015b). This last approach is particularly evident in the field of energy policy. The EU has oscillated between its long-preferred strategies of building international regimes modelled on its own normative approach to energy policy (Goldthau & Sitter, 2015a), combined with openly assertive use of regulation in pursuit of its own interests, notably regarding contested pipeline projects. The EU's latest moves towards Energy Union indicate that measures that might even qualify as mercantilist are now part of the bloc's external governance toolbox (Andersen, Goldthau, & Sitter, 2017a, 2017b).

This chapter explores the principal options the EU has for dealing with external energy challenges. It sees the four available options as located on a continuum that runs from soft to hard power: trade neutrality, regulatory bias favouring consumers, double bias (favouring consumers but also singling out regulatory targets) and low politics becoming a function of high politics. This continuum sits well with the concept of normative power, regulatory power, market power and economic power and thus conceptualizes available strategies against the backdrop of pertinent scholarly debates. Our primary goal here is to not to add another concept to the power debate, but (1) to conceptualize the core elements that distinguish each type of power for the case of energy, (2) to theorize on the role of regulation in this context and (3) to explore the implications for EU leadership in international energy governance.¹

The next four sections elaborate on each of the four options, providing illustrative evidence for each option, mostly from the gas sector—the most politicized sector in the EU's external energy affairs. In the concluding section, we note that, although the EU's overall normative (liberal) outlook has not changed, the EU can now draw on a variety of policy tools as it sees fit and has at its disposal a range of models for global and regional energy governance.

EU NORMATIVE POWER AND INTERNATIONAL ENERGY GOVERNANCE

The first model the EU has at its disposal involves using regulation to build and manage markets in ways that are basically neutral as regards the specific interests of the EU in the energy sector (which, for gas, are

¹For an overview of the concept of global energy governance and the role of rules and institutions therein, see Goldthau and Witte (2010). For a discussion of EU–Russian energy governance dynamics, see also Kuzemko, Belyi, Goldthau, and Keating (2012).

overwhelmingly those of a consumer) versus those of its main trading partners. This is not to suggest that the EU would pursue a set of international rules that are somehow value-neutral but rather that its approach to energy trade would be shaped by its overall approach to trade liberalization. This is directly linked to the idea that the EU seeks to shape the global political economy not by pursuing its own narrow economic interests but by building rules and regulations intended to be attractive to all market-oriented global players. The EU's experimentation with policies to mitigate climate change, such as its Emissions Trading Scheme, is an example of this: an effort to develop a regulatory regime that can serve as a model for global governance or a model for other national or regional regimes (Goldthau & Sitter, 2015a).

Internally in the EU, this is the EU regulatory state model (Lodge, 2008; Majone, 1994; McGowan & Wilks, 1995). In the energy sector, this means building a Single European Market (SEM) for gas and electricity, improving cross-border trade in both gas and oil molecules and energy services, enhancing competition for consumer benefit and, to that end, strengthening interconnectors between national markets. It thus involves both infrastructure 'hardware' and regulatory 'software'. This is the liberal model enshrined in the EU's efforts at market integration. In this model regulation involves market creation and ensuring its proper functioning through strong enforcement mechanisms. This model is embodied in the competition policy regime, which arguably represents the EU's most supranational element. It formed the basis of the Commission's project for liberalizing the energy market in the 1990s—which drew widespread initial criticism from the member states because it challenged interventionist energy policy and the role of national champions in the electricity and gas sector. Liberalization progressed slowly, with three regulatory 'packages' of directives in 1996/1998, 2003 and 2009, and was initially a bigger triumph for a market liberalization as a paradigm than as an effective reform (Andersen & Sitter, 2009). However, the overall result was that the EU's overall 'regulatory state' approach to economic governance was gradually extended to the energy sector. Two decades after the first directive on gas liberalization, daily market-based spot prices had become more important in setting the terms of gas trade in Europe than long-term project-based contracts (Stern & Rogers, 2014).

Externally, this model comes with the idea that (binding) international rules serve to level the playing field and benefit everyone—which

in the energy sector includes net importers (like the EU) and exporters (like Russia). The neutral model proposes the creation of international regimes to foster free trade and a commitment to international law—precisely the paradigm that rose to prominence in the wake of the Cold War (Babb, 2013; Buch-Hansen & Wigger, 2010; Helleiner, 2003; Rupert, 1995). A key example in energy is the EU’s attempt to create a pan-Eurasian regime to regulate energy trade, transit and investment through the Energy Charter Treaty (ECT) (Dore & Bauw, 1995; Selivanova, 2012; Waelde, 1995). We can also note the EU’s efforts to extend WTO rules to the energy sector and to govern energy commodities and services under the umbrella of the international trade regime. As elaborated elsewhere (Goldthau & Sitter, 2015a), key energy exporters such as Russia and Saudi Arabia eventually joined the WTO without the regime being extended to oil and gas trade (see also Milthorp & Christy, 2011), while the ETC ended up having far less impact than intended, largely because of Russia’s second thoughts and concerns that the regime was too close to the EU’s own regulatory model (Belyi, 2009; Selivanova, 2012).

However, neutrality cannot be absolute, for the simple reason that there exist asymmetries between the EU and third parties. The sheer size of the EU economy allows it to act as a ‘rule-setter’ in the global political economy (Abdelal, 2006; Bruszt & McDermott, 2012; Went, 2004). Moreover, neutrality clearly cannot mean ‘value-free’, as the binding rules the EU wishes to establish globally would inevitably be informed by a liberal outlook, with the fundamental view that trade is a positive-sum game and that transparent and effective rules are a global public good. In that sense, there is a strong element of ‘normative power’ involved: the EU seeks to influence global governance regimes in line with its normative paradigm or its own ‘grand strategy’. If *strategy* is the link between aims and means, *grand strategy* is about an organization’s very identity and core preferences. And despite the long-running debates about the merits of free trade, in Brussels and in national capitals, both the EU’s institutional blueprint and the ‘lowest common denominator’ for member state trade policy give the EU a liberal identity. The central point here is therefore that in the ‘normative energy power’ strategy, it is the EU’s *approach* to regulatory governance which is essentially neutral: rules are binding and apply across the board, and policies as applied are not to favour or disfavour the EU or any third party.

EU REGULATORY POWER AND THE EXTERNAL REACH OF THE SINGLE MARKET IN ENERGY

The second model contrasts with the first in that the EU uses regulation to build and manage markets in ways that favour itself. In energy—as in most other sectors—this means putting in place regulatory regimes that generate consumer benefit. In the case of gas, this involves shifting the balance between the power of exporters and importers. The EU has done it by working through the attractiveness of its own large market and granting (or denying) others access to it. This model is fully in line with the EU’s liberal grand strategy: but states or companies that want to export to the EU must then conform with the SEM regime. Unlike in the ideal-type liberal ‘normative power’ model, the EU thus uses the size of its market to demand that third-party actors accept the rules set by the EU—or else face losing access to the market. This model was much debated in the context of the ‘conditionality’ approach that characterized the run-up to several waves of EU enlargement (Hyde-Price, 2006). This kind of regulatory power—as a ‘take it or leave it’ offer—effectively forced Norway to accept the EU’s energy market rules (and plans for liberalization) in 1994 as part and parcel of its access to the SEM through the European Economic Area.² In 2017 the British government began to experience the same dynamic, as its quest for a tailor-made regime for access to the SEM ran up against the regulatory power of the EU.

The EU’s regulatory power mainly involves passive use of power, as it requires third actors to adapt to and adhere to the EU’s rules and regulations—but only if they wish to export to the EU. In that case, the EU enjoys ‘extraterritorial regulatory capacity’ (Bradford, 2012), as the rules that it emplaces internally have external effects and change the behaviour of external actors. In the energy sector, for instance, this means that foreign gas companies must adapt their business model—by selling on a competitive spot basis rather than oil-indexed in long-term contracts, accepting the importers’ freedom to resell gas to other companies within the Single Market, or even having their bilateral contracts vetted by the European Commission. Thereby, external energy companies—and if they are state-owned, also their governments—become subject to EU rules if they operate downstream in the European market, even if only partially.

² Elsewhere in this volume, this process of Norway’s adaptation is discussed in detail in Chap. 6 by Ole Gunnar Austvik; its consequences for Norway’s role in the European energy game are discussed partly in Chap. 3 by Svein S. Andersen and Nick Sitter, and in Chap. 5 by Jakub M. Godzimirski.

This passive use of power may even affect the setup of some countries' energy sector governance. For instance, as shown in Chap. 6 of this volume, after joining the EEA, Norway—a prime gas exporter to the EU—had to remodel its gas sector and change its export regime (Austvik, 2001). Similarly, upon joining the Energy Community, a Vienna-based organization, non-EU countries in the Balkans and Ukraine had to accept EU energy market rules, even if they supervise themselves. This is the price they pay for being integrated more closely with the EU—even if only coming with a remote membership perspective (Prange-Gstöhl, 2009). With the Energy Community, the EU extends its liberal regulatory regime not only to producers but also to transit countries for gas, effectuating domestic (EU) consumer benefit.

For the EU, the regulatory power approach was a second-best option in the gas sector. That the organization fell back on a unilateral way of organizing regional European gas trade was in no small part a result of its failure to shape a global regime and universal rules on energy, under the WTO umbrella or as part of the regional ECT. What this represents, in essence, is regulatory power: a non-reciprocal way of shaping energy relations. This is what the present authors (Goldthau & Sitter, 2014) have termed the 'external dimension of the regulatory state'—the extension of the EU's own rules to external actors and the EU's effort to enforce these rules. It comes with a regulatory approach that is clearly biased towards consumer, not producer, interests.

To illustrate this point further: from a regulatory power perspective, the EU will treat Gazprom as a dominant market player and require it to sell gas in the European market in line with relevant competition policies—regardless of whether the company is viewed as Moscow's foreign policy arm. Accordingly, the European Commission instructed Gazprom to remove destination clauses from its contracts with European consumers, and launched an antitrust case against the Russian monopolist for its alleged discriminatory pricing practices. Also, the Commission did not shy away from demanding changes in the company's behaviour, even as this triggered legal counteraction in Russia, in the shape of a presidential blocking order (see Martyniszyn, 2015). The straightforward choice the EU offered to Gazprom was to either 'come and play' on the EU market (with the obligation to abide by the entire set of legal rules) or lose its prime export market. Still, and although the regime is biased favouring (domestic) consumer over (foreign) producer interests, both the regulatory rules and their application remain neutral, as the Commission treats all actors operating in the Single Market the same way—regardless of where their headquarters are located.

EU MARKET POWER AND THE EXTERNAL DIMENSION OF EU ENERGY POLICY

The common factor in the first two EU approaches to international energy leadership is that they are not targeted at specific actors but are applied universally and apolitically. In normative power the aim is international trade and the means are ideas, models and global rules. Regulatory power is geared towards extending the reach of the EU's own rules and regulations and is based on the principle of non-discrimination. When the EU applies its regulatory rules selectively, or uses other forms of economic power to influence the behaviour of another state (or firm), it crosses the line between soft and hard power. In Joseph Nye's terms (2004), the core feature of hard power is that it is coercive, regardless of whether this involves economic, political or military means. Applied to the EU, market and economic power is *targeted* at a selected actor—since even the kind of conditional market access that is applied equally to all states and firms entails an element of coercion. Indeed, it is sometimes argued that international trade generally involves deliberate exercise of economic power—since all trade power is about both “carrots” and “sticks” to enforce such norms on trading partners’ (Meunier & Nicolaidis, 2006, p. 920).

Our distinction between economic power and regulatory power goes some way towards clarifying this by emphasizing the aims and intentions behind EU policy. The Commission's main policy tools are regulatory, and its use of *regulatory power* abroad is defined as its application of these regulatory tools to build international or regional markets and to make them work better. This definition of *regulatory power* thus involves elements of both means (regulation) and goals (correcting or mitigating market failures). By contrast, for Nye, *economic power* is hard power—using threats or inducements (the means) to get a specific actor to pursue/not pursue a given course of action; and the goals may be regulatory, economic or political. Moreover, whereas regulatory power implies that the aim is to ensure the functioning of a given regulatory regime, market power and economic power can be deployed in the pursuit of a much wider range of goals. And in the last decade, the EU has begun to use regulation for political goals far beyond correcting market failures—such as counterbalancing the political and economic power of Russia. Ensuring that Gazprom's contracts with EU firms comply with SEM rules is an example of regulatory power: imposing sanctions on Russia over the Crimea crisis is economic power.

There is considerable academic debate on EU's use of its trade power and particularly about whether the sheer economic weight of the EU means that its very existence amounts to what Barnett and Duvall's (2005) classify as 'power to compel'. Is this primarily a matter of what Damro (2012, p. 683) calls 'market power Europe', which is exercised by 'externalization of economic and social market-related policies', or does it come closer to Nye's hard power? In this section and the next, we address that question by distinguishing between *market power* and *economic power*, by focusing on the two very different means by which the EU can and does use its economic might to pursue its wider economic and political interests in the rapidly changing world of energy.

The market power strategy is based on the idea that gas is a strategic good and that security of supply must be a paramount concern for a specific group of states that rely on a neighbouring empire for almost 40 per cent of their gas imports. Until the Energy Union debate began in 2014, after successive gas disputes between Russia and Ukraine, and Russia had annexed Crimea, the idea that the EU could or should use its economic might to counterbalance Russia was very much a minority view. However, with the deterioration in EU–Russia relations and the acrimonious competition between the EU-supported Nabucco pipeline (designed to diversify gas transit away from Ukraine and gas supply from Russia to the Caspian states) and the Russian South Stream alternative (designed as a second alternative to the Ukrainian transit route after Nord Stream but for Russian gas), these ideas gained traction. The model that we call 'liberal mercantilism' is liberal in the sense that it primarily involves means linked to the extension of the SEM and free-market principles to non-EU states or firms but is mercantilist in the sense that it involves the use of regulatory instruments and economic policy for broader economic and foreign policy ends (Andersen et al., 2017b).

EU market regulation can be applied strategically and selectively. This is where the boundaries between soft power, conditional market access and hard power are blurred in practice but where the line to hard power is crossed conceptually. A case in point is Russia's South Stream pipeline project for bringing Russian gas to Bulgaria and further downstream to the EU market—a rival to the EU's Southern Gas Corridor project that was to bring gas through the Turkey transit route to the same region. The Commission questioned the compliance of South Stream with EU law and particularly the Intergovernmental Agreements (IGAs) governing South

Stream's onshore parts in light of European third-party access and unbundling requirements. In addition, the Commission threatened to investigate Bulgarian procurement related to the pipeline. All this caused Russia to abandon the project in December 2014. It is important to note the timing of the Commission's actions, against the backdrop of the Ukraine crisis, Russia's annexation of Crimea and the emerging question of Ukrainian gas transit post-2019.

Moreover, in at least one case, the design of EU gas regulation can be interpreted as part of a broader foreign policy initiative. The case in question is the 'Gazprom clause' entailed in the Third Energy Package (TEP). The TEP's Article 11 defines 'security of supply risks' as a legitimate cause for national European transmission operators to reject the certification of a non-EU energy company. Not only does Article 11 target external firms only, it was arguably designed with Gazprom in mind (Cottier, Matteotti-Berkutova, & Nartova, 2010).

It was in the context of the 2014 Ukraine crisis that the Commission decided to freeze its decision procedure on OPAL, the onshore extension of Nord Stream, a 55 bcm pipeline connecting Russia and Germany. OPAL is crucial for marketing Nord Stream gas further downstream, but its use by Gazprom is capped at 50 per cent. (The technical reason is that no dominant supplier to the Czech gas market may book more than 50 per cent of OPAL's exit capacity at the Czech border (Bundesnetzagentur, 2009a, 2009b).) This made OPAL a bottleneck for Russia's Nord Stream gas exports, a consequence of which was that the pipelines reportedly ran at only half capacity (Reuters, 2015). The Commission's refusal to revisit the regulatory cap on OPAL's use, even against the backdrop of an auction in 2015 that demonstrated a lack of third-party interest in pipeline capacity, amounted to a political move rather than one that could be judged market-related—particularly as Ukraine was cited as a reason for maintaining the current exemption regime.

As argued by Goldthau (2016), Nord Stream 2—the planned expansion of the Nord Stream pipeline linking Russia and Germany across the Baltic Sea to 110 bcm capacity—will serve as a test case for whether the Commission will continue applying EU regulation selectively and in a targeted way, thus consolidating the EU's 'liberal mercantilist' approach to external energy governance. Nord Stream 2 will bring 55 bcm of natural gas a year into the European market, doubling the capacity of the existing Nord Stream link. It is politically contested particularly because it might make Ukraine redundant as a gas transit country, whereas the EU

officially seeks to extend the country's transit status and aims at building a strategic partnership on energy with it (European Commission, 2015). While a liberal regulatory state approach to Nord Stream 2 would concentrate on ensuring competition in the EU downstream market, a liberal mercantilist approach would presumably seek to ensure that the politically favoured supply route is chosen. The EU authorities have repeatedly stressed that Nord Stream 2 must comply with EU law, although offshore import pipelines have not yet been made subject to these rules. The Commission's 2017 move to overhaul the Third Energy Package and make EU energy rules apply to upstream pipelines (European Commission, 2017) may level the playing field here. Still, making Nord Stream 2 subject to EU unbundling and TPA requirements would probably mark the end of the project and hence ensure that Russian gas must keep on flowing through Ukraine.

The public discourse surrounding Nord Stream 2 has been heavily divisive from the beginning, with Nord Stream 2 being presented as a purely economic project, or one that would revive the 'Cold War line as an economic one' (Politico, 2016a). The debate around Nord Stream 2 comes against the backdrop of Russian gas supplies being contested for reasons related to long-standing East European fears of dependency and energy security but also Russia's annexation of Crimea in 2014. Regulation emerged as a central element in the Nord Stream 2 conundrum. On the one hand, the Commission was on record as being 'vigilant about the rigorous application of EC law' (European Parliament, 2015) as regards operating new pipelines. The main point of contestation here was whether Nord Stream 2 would be subject to the EU's Third Energy Package and therefore, *inter alia*, to TPA provisions. Beyond the legalities involved, this contestation was very basically about whether the project could be stopped for not being compatible with EU energy laws. The Commission also proposed to negotiate 'a specific legal regime' with Russia for the pipeline, to be informed by 'some fundamental principles stemming from EU energy law' (Reuters, 2017). In November 2017 the Commission went even further and announced the imminent revision of the Gas Directive, so as to make upstream pipelines subject to the EU legal regime. This would set a new precedent, making upstream gas pipelines like Nord Stream subject to EU's internal energy market law (Goldthau, 2016; Pirani & Yafimava, 2016). It also indicates that regulatory considerations are being driven by (geo)political motives—which may in turn call into question the primary function of regulation: 'levelling the playing field'. Such political use of

regulation seems to have been the case when the Polish antitrust body UOKiK used national competition rules to reject the notified joint venture involving Austria's OMV, France's Engie, Germany's Uniper and Wintershall and UK–Dutch firm Shell, Gazprom's European partners in financing and building Nord Stream 2. The comments of the UOKiK president made it clear that the primary concern was not necessarily Polish gas market competitiveness but to 'stop the [Nord Stream 2] deal' (EUObserver, 2016). Thus, national regulation—in this case in competition policy—was used to deal with what was viewed as a broader geopolitical threat.

The Energy Union, the EU's latest policy initiative for streamlining and unifying its scattered energy policy, began in the context of the Ukrainian crisis and Polish and Baltic concerns about Russia's increasingly aggressive foreign policy. At the very least, the Energy Union seems set to sharpen the politicization of EU energy regulation. According to a Council Decision of December 2015, new energy infrastructure, in addition to being in line with TEP requirements, 'should entirely comply with [...] the objectives of the Energy Union' (European Council, 2015). In effect, this Decision makes the Energy Union goals—with security of supply topping the list—the explicit political context in which regulation is to be interpreted. EU regulation thereby becomes a potentially formidable instrument for advancing EU foreign policy priorities, particularly regarding the fate of Ukraine's energy economy (including Kyiv's ability to retain some USD 2 billion in annual gas transit fees) and Russia's capacity to service its contractual gas export obligations—including its ability to earn money on the European market. Up until 2015, the EU experimented on an ad hoc basis with a range of forms for regulatory and market power in the energy sectors; the development of the EU Energy Union has added 'market power' tool to the EU's energy tool box on a more systematic basis.

EU ECONOMIC POWER AND THE REGIONAL GEOPOLITICS OF ENERGY

Finally, the EU could in theory use its economic power in a more directly mercantilist way—whether for security and foreign policy goals or to protect its industries and give them an advantage over non-EU rivals. Indeed, the EU (or, rather, its predecessors) did just that for several industries in the 1960s and 1970s, thereby giving rise to the literature on 'fortress

Europe’ (see Hanson, 2003). It used both its regulatory and economic power to set tariffs and import quotas for a range of products, from textiles to cars. In the sphere of energy, this was hardly necessary at a time when the gas and electricity sectors were dominated by regional or national state-owned monopolies and the content of EU energy policy remained firmly in the hands of national governments. However, in the liberalized and privatized political economy of gas in the new millennium, some of the countries that are most dependent on Russian gas and that fear political intervention from Moscow for historical reasons—primarily Poland and the Baltic states—have called for a far more assertive EU gas policy, to be targeted directly at Russia.

The fourth and final strategy available to the EU for managing the international political economy of energy is the direct use of economic power as a tool of foreign policy. This strategy is informed by a combination of the realist school of international relations and interventionist approaches to domestic political economy that envisage a strong state supporting selected industries for political and economic reasons closely linked to the quest for a strong and secure state—or empire (Kissinger, 2014). This approach to international political economics fits Russia and China’s external economic policy rather well but has not yet been much debated in the EU. Nevertheless, a series of international events in 2016 and 2017 served to propel mercantilist ideas to the fore, promoting new ideas about the EU’s potential to use hard economic power for security reasons. The Crimea crisis in the spring of 2014 placed Russian foreign policy and the Russian security threat at the top of the EU foreign policy agenda. Increasingly aggressive intrusions into EU and NATO airspace in the Baltics and Nordic regions in 2016 and 2017 only exacerbated the issue. When, on the other side of the Atlantic, Donald Trump openly questioned the US commitment under NATO’s Article 5 to defend the Baltic states, he—perhaps unintentionally—gave a boost to the case for a stronger EU security policy and profile. On top of this, the British government’s decision to leave the EU following the consultative referendum on Brexit in June 2016 provided an opportunity for, as well as new urgency for, stronger EU security cooperation. With the liberal UK out of the picture, there likely will be a shift in the balance between the defenders of the EU’s current (mostly) liberal approach to energy markets and security of supply of gas and the advocates of a more assertive liberal mercantilist approach. And there are ample precedents for the EU’s use of hard economic power—notably the energy sanctions against Iran and

Russia (in the case of Iran, over its nuclear programme; in the case of Russia, over the eastern Ukraine and Crimea).

The initial Energy Union proposal as presented by Donald Tusk, the former Polish prime minister and current president of the European Council, entailed barely hidden mercantilist elements. A main building block of Tusk's initiative, launched in the context of the Russian annexation of Crimea, was to pool EU consumer power for gas purchases from third countries (Tusk, 2014). That would have made EU energy policy explicitly and inextricably linked to energy geopolitics, as the EU would utilize its sizeable gas market to twist the Kremlin's arm (i.e. Gazprom), and hence as a means to force Russia to change its foreign energy policy behaviour. While this proposal was eventually dropped—like its predecessor, the Caspian Development Corporation (IHS CERA, 2010), which concerned Caspian energy supplies destined for the Southern Corridor—the idea as such has retained some traction. For instance, Commission Vice President for the Energy Union Maroš Šefčovič has voiced the conviction that '[...] we should also use our political and economic weight as the biggest energy buyer in the world a little bit more vehemently in our relationship with our principle energy suppliers' (Politico, 2016b).

This is in line with the more general findings that energy has been increasingly securitized (Boersma & Goldthau, 2017). And if Russian—and Gazprom's—energy policy is seen as an aspect of Russian foreign policy, that erases borderline between energy geopolitics and the security aspect of geopolitics. The Danish parliament's adoption of a law that permits the government to take security concerns into account when deciding on allowing pipelines to cross its territorial waters (as Nord Stream 2 would) is a case in point: in the debate the Social Democrat opposition foreign policy spokesman made it clear that in the present context Nord Stream 2 is a much more geopolitical project than Nord Stream 1 was a decade earlier (Politiken, 2017b). As Danish MP Nick Hækkerup put it: 'It is odd that we can be in a situation where the Russians are behaving so aggressively that we have to send Danish soldiers to the Baltic states, and at the same time consider facilitating their investments' (Politiken, 2017a).

CONCLUSIONS

The analysis of EU external energy policy presented here indicates that, in dealing with external energy partners, the EU has gradually moved from a neutral approach to a strategic one. This is not so much the

consequence of changes in the EU identity and organization as it is the result of global shifts in energy policy—indeed, in geopolitics more generally. Since the 1980s EU energy policy has involved balancing three sets of concerns: the quest for a single market for energy, the need to protect the environment and security of supply. But whereas in the 1980s and 1990s security of supply was primarily a question of uninterrupted supply to households and industries at societally acceptable prices, the geopolitical dimension of security of gas supply has taken priority since the turn of the millennium. The salience of secure supplies of gas, and the role of an increasingly assertive and unpredictable Russia as the supplier of more than a third of the EU's imported gas, has added fuel to the fire of the debate on the kind of power and leadership the EU should exercise as regards the international political economy of energy. The last two decades have shown that the EU remains committed to its overall liberal grand strategy and that it has a wider range of options. Most of these have been debated and have their advocates in the EU. Many have been tested, albeit on an ad hoc basis. These four strategies—which are conceptual types—are summed up in (Fig. 2.1) with a few key examples of their (attempted) application.

The regulatory power strategy remains the European Commission's main strategy. But this is increasingly a matter of choice, not of necessity. To be sure, regulation and competition policy is still the EU's most powerful tool—and it is one where the Commission can actually 'speak with one

Normative Power	Regulatory Power	Market Power	Hard Economic Power
<ul style="list-style-type: none"> • Aim: Free trade, by international rules • Means: Ideas, leading by example • Examples: <ul style="list-style-type: none"> • ECT • (Include energy in WTO) 	<ul style="list-style-type: none"> • Aim: Trade by EU rules • Means: EU regulation, applied apolitically • Examples: <ul style="list-style-type: none"> • Gazprom antitrust case • Energy Community • EEA 	<ul style="list-style-type: none"> • Aim: EU interests • Means: EU regulation, applied selectively • Examples: <ul style="list-style-type: none"> • South Stream vs TAP / Nabucco/ Southern Corridor • Denial of OPAL use • Gazprom clause • Nord Stream 2 & TEP 	<ul style="list-style-type: none"> • Aim: EU interests • Means: economic reward/punishment • Examples: <ul style="list-style-type: none"> • Energy sanctions against Russia / Iran • CDC / Energy Union gas purchase vehicle proposal

Fig. 2.1 Models of EU external energy governance

voice' for the EU. But this tool may be deployed for various reasons—as part of a regulatory power strategy when the EU seeks to extend the reach of its Single Market rules on energy or as market power when the Commission uses it more selectively for foreign or strategic energy policy.

The other two strategies are more problematic, for very different reasons. In the energy sphere, normative power does not work very well, for the simple reason that Russia does not find the free trade model particularly attractive. In the face of states—and empires—that treat energy as a matter of geopolitics, 'Normative Energy Power Europe' is not going to be very effective. On the other hand, for the EU to exercise hard economic power in the energy sector, it will need more political unity than is on the cards for 2018. The governments of Hungary and Bulgaria are in some respects closer to Moscow than to Brussels and would be unlikely to accept a more assertive exercise of economic power than the present sanctions. Poland's current right-wing populist government is under investigation for breach of the EU's fundamental values and—despite its fear of Russia—seems headed for a clash with the other member states, which would hardly make joint EU action any easier. As hard economic power requires consensus among the member states, it can be ruled out in all but the most extreme cases. This leaves the EU—and the Commission—with regulatory power and market power as the most realistic strategies for leadership in the regional political economy of energy.

For small states, stable international rules and a predictable environment are more often important than the precise nature of the rules. In his study of how the victors of major international conflicts managed their power, John Ikenberry (2000) argued that the way in which the UK after the Napoleonic Wars and the USA after the Second World War took the lead in building international institutions that limited their immediate room for wielding power was crucial to their maintaining disproportionate great-power status long after their military victories—in contrast to, for example, US isolationism after the First World War. The key to the bargain is that big states trade their scope for discretionary action in return for international regimes that institutionalize their power; and small states accept these regimes in return for predictability and a (small) degree of influence.

Much the same could be said of the way the EU has handled its small neighbours, including Norway, both in general and in terms of energy policy. For this perspective, the biggest danger for Norway is that the EU might shift away from its regulatory power strategy in energy policy and

towards a more mercantilist market power (let alone economic power) strategy. While the immediate costs and benefits to Norway of a more assertive (mercantilist) EU energy policy would of course depend on the detailed context of this policy—it could conceivably benefit Norway as a reliable supplier, at the cost of Russia—the medium- to long-term prospects for Norway would be bleaker the more the EU shifts from regulatory power to mercantilism. For a small state in an age of global shifts, the advantages of a stable and predictable regional political economy must be prized. Ikenberry's key point was that institutions that limit powerful international actor's ability to exercise their power benefit both small states and big powers. This holds as much for the EU today as for Britain in 1814 or the USA in 1945. Over the last decade, the EU has increased its foreign policy options in the world of energy and strengthened its ability to deploy its market power. There is no shortage of advocates of further use of such power or of incidents that provoke debates about hard-power responses. Indeed, hard-power challenges may warrant hard-power responses. But deploying regulatory instruments selectively in an effort to increase market power puts the EU's overall regulatory state grand strategy in jeopardy.

REFERENCES

- Abdelal, R. (2006). Writing the Rules of Global Finance: France, Europe, and Capital Liberalization. *Review of International Political Economy*, 13(1), 1–27.
- Andersen, S., Goldthau, A., & Sitter, N. (2017a). From Low to High Politics? The EU's Regulatory and Economic Power. In S. Andersen, A. Goldthau, & N. Sitter (Eds.), *Energy Union. Europe's New Liberal Mercantilism?* (pp. 13–26). Basingstoke, UK: Palgrave Macmillan.
- Andersen, S., Goldthau, A., & Sitter, N. (Eds.). (2017b). *Energy Union: Europe's New Liberal Mercantilism?* Basingstoke, UK: Palgrave Macmillan.
- Andersen, S. S., & Sitter, N. (2009). The European Union Gas Market: Differentiated Integration and Fuzzy Liberalization. In G. Fermann (Ed.), *Political Economy of Energy in Europe*. Berlin, Germany: BWW.
- Austvik, O. G. (2001). Gassdirektiv, GFU og Norske Interesser. *Internasjonal politikk*, 59, 367–394.
- Babb, S. (2013). The Washington Consensus as Transnational Policy Paradigm: Its Origins, Trajectory and Likely Successor. *Review of International Political Economy*, 20(2), 268–297.
- Barnett, M., & Duvall, R. (2005). Power in International Politics. *International Organization*, 59(1), 39–75.

- Belyi, A. V. (2009). *A Russian Perspective on the Energy Charter Treaty (ARI)* (ARI 98). Madrid, Spain: Real Instituto Elcano.
- Bickerton, C. J. (2011). *European Union Foreign Policy: From Effectiveness to Functionality*. London: Palgrave.
- Birchfield, V. L. (2015). Coercion with Kid Gloves? The European Union's Role in Shaping a Global Regulatory Framework for Aviation Emissions. *Journal of European Public Policy*, 22(9), 1276–1294.
- Boersma, T., & Goldthau, A. (2017). Wither the EU's Market Making Project in Energy: From Liberalization to Securitization? In S. Andersen, A. Goldthau, & N. Sitter (Eds.), *Energy Union. Europe's New Liberal Mercantilism?* (pp. 99–114). Basingstoke, UK: Palgrave Macmillan.
- Bradford, A. (2012). The Brussels Effect. *Northwestern University Law Review*, 107(1), 1–68.
- Bradford, A. (2016). The EU as a Regulatory Power. In M. Leonard (Ed.), *Connectivity Wars. Why Migration, Finance and Trade Are the Geo-Economic Battlegrounds of the Future* (pp. 121–128). London: European Council on Foreign Relations.
- Bretherton, C., & Vogler, J. (2006). *The European Union as a Global Actor*. London/New York: Routledge.
- Bruszt, L., & McDermott, G. A. (2012). Integrating Rule Takers: Transnational Integration Regimes Shaping Institutional Change in Emerging Market Democracies. *Review of International Political Economy*, 19(5), 742–778.
- Buch-Hansen, H., & Wigger, A. (2010). Revisiting 50 Years of Market-Making: The Neoliberal Transformation of European Competition Policy. *Review of International Political Economy*, 17(1), 20–44.
- Bundesnetzagentur. (2009a, July 7). Änderungsbeschluss Bk7-08-009.
- Bundesnetzagentur. (2009b, July 7). Änderungsbeschluss Bk7-08-010.
- Cottier, T., Matteotti-Berkutova, S., & Nartova, O. (2010). *Third Country Relations in EU Unbundling of Natural Gas Markets: The 'Gazprom Clause' of Directive 2009/73 EC and WTO Law* (Working Paper, 2010(06)).
- Damro, C. (2012). Market Power Europe. *Journal of European Public Policy*, 19(5), 682–699.
- Damro, C. (2015). Market Power Europe: Exploring a Dynamic Conceptual Framework. *Journal of European Public Policy*, 22(9), 1336–1354.
- Dore, J., & Bauw, R. D. (1995). *The Energy Charter Treaty: Origins, Aims and Prospects*. London: Royal Institute of International Affairs.
- EUObserver. (2016, August 22). Russia to Build Nord Stream 2 Despite Polish Objection.
- European Commission. (2015). Energy Union Package. A Framework Strategy for a Resilient Energy Union with a Forward-Looking Climate Change Policy. Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee, the Committee of the Regions and the European Investment Bank. *Com(2015) 80 Final*.

- European Commission. (2017, November 8). Energy Union: Commission Takes Steps to Extend Common Eu Gas Rules to Import Pipelines. *IP/17/4401*.
- European Council. (2015, December 18). European Council Conclusions on Energy and Climate Policy.
- European Parliament. (2015, August 13). Answer Given by Mr Arias Cañete on Behalf of the Commission. *Parliamentary Questions*.
- Goldthau, A. (2016). *Assessing Nord Stream 2: Regulation, Geopolitics & Energy Security in the EU, Central Eastern Europe & the UK* (EUCERS Strategy Paper 10).
- Goldthau, A., & Sitter, N. (2014). A Liberal Actor in a Realist World? The Commission and the External Dimension of the Single Market for Energy. *Journal of European Public Policy*, 21(10), 1452–1472.
- Goldthau, A., & Sitter, N. (2015a). *A Liberal Actor in a Realist World. The European Union Regulatory State and the Global Political Economy of Energy*. Oxford, UK: Oxford University Press.
- Goldthau, A., & Sitter, N. (2015b). Soft Power with a Hard Edge: EU Policy Tools and Energy Security. *Review of International Political Economy*, 22(5), 941–965.
- Goldthau, A., & Witte, J. M. (2010). The Role of Rules and Institutions in Global Energy: An Introduction. In A. Goldthau & J. M. Witte (Eds.), *Global Energy Governance: The New Rules of the Game* (pp. 1–21). Washington, DC: Brookings Press.
- Hanson, B. T. (2003). What Happened to Fortress Europe?: External Trade Policy Liberalization in the European Union. *International Organization*, 52(1), 55–85.
- Helleiner, E. (2003). Economic Liberalism and Its Critics: The Past as Prologue? *Review of International Political Economy*, 10(4), 685–696.
- Howorth, J., & Menon, A. (2009). Still Not Pushing Back: Why the European Union Is Not Balancing the United States. *Journal of Conflict Resolution*, 53(3), 727–744.
- Hyde-Price, A. (2006). ‘Normative’ Power Europe: A Realist Critique. *Journal of European Public Policy*, 13(2), 217–234.
- IHS CERA. (2010). *Caspian Development Corporation* (Final Implementation Report).
- Ikenberry, G. J. (2000). *After Victory: Institutions, Strategic Restraint, and the Rebuilding of Order after Major Wars*. Princeton, NJ: Princeton University Press.
- Kissinger, H. (2014). *World Order: Reflections on the Character of Nations and the Course of History*. London: Allen Lane.
- Kuzemko, C., Belyi, A., Goldthau, A., & Keating, M. (Eds.). (2012). *Dynamics of Energy Governance in Europe and Russia*. Basingstoke, UK: Palgrave Macmillan.

- Lavenex, S. (2014). The Power of Functionalist Extension: How EU Rules Travel. *Journal of European Public Policy*, 21(6), 885–903.
- Lodge, M. (2008). Regulation, the Regulatory State and European Politics. *West European Politics*, 31(1/2), 280–301.
- Majone, G. (1994). The Rise of the Regulatory State in Europe. *West European Politics*, 17(3), 77–101.
- Manners, I. (2006). Normative Power Europe Reconsidered: Beyond the Crossroads. *Journal of European Public Policy*, 13(2), 182–199.
- Martyniszyn, M. (2015). On Extraterritoriality and the Gazprom Case. *European Competition Law Review*, 36(7), 291–294.
- McGowan, L. E. E., & Wilks, S. (1995). The First Supranational Policy in the European Union: Competition Policy. *European Journal of Political Research*, 28(2), 141–169.
- Meunier, S., & Nicolaidis, K. (2006). The European Union as a Conflicted Trade Power. *Journal of European Public Policy*, 13(6), 906–925.
- Milthorp, P., & Christy, D. (2011). Energy Issues in Selected WTO Accessions. In Y. Selivanova (Ed.), *Regulation of Energy in International Trade Law. WTO, NAFTA and Energy Charter* (pp. 259–302). Alphen aan den Rijn, Netherlands: Kluwer Law International.
- Nye, J. S. J. (2004). *Soft Power: The Means to Success in World Politics*. New York: Public Affairs.
- Pirani, S., & Yafimava, K. (2016). *Russian Gas Transit across Ukraine Post-2019: Pipeline Scenarios, Gas Flow Consequences, and Regulatory Constraints* (OIES Paper: NG 105).
- Politico. (2016a, February 10). Great Northern Gas War.
- Politico. (2016b, January 21). Pro's Morning Energy: Comm's Gas Contract Plans.
- Politiken. (2017a, October 19). Interview Med Nick Hækkerup: Rusland Optræder Aggressivt.
- Politiken. (2017b, October 17). Rød Blok Presser Regeringen: Sig Nej Til Russisk Gasledning Gennem Dansk Territorium.
- Prange-Gstöhl, H. (2009). Enlarging the EU's Internal Energy Market: Why Would Third Countries Accept EU Rule Export? *Energy Policy*, 37(12), 5296–5303. <https://doi.org/10.1016/j.enpol.2009.07.070>.
- Reuters. (2015, January 28). Update 2-Gazprom Mothballs Extension of Nord Stream Pipeline.
- Reuters. (2017, March 30). EU Seeks to Negotiate with Russia over Nord Stream 2 Gas Pipeline.
- Rupert, M. E. (1995). (Re)Politicizing the Global Economy: Liberal Common Sense and Ideological Struggle in the US NAFTA Debate. *Review of International Political Economy*, 2(4), 658–692.
- Selivanova, Y. (2012). The Energy Charter and the International Energy Governance. In C. Herrmann & J. P. Terhechte (Eds.), *European Yearbook of*

- International Economic Law* (Vol. 3, pp. 307–342). Berlin, Germany/Heidelberg, Germany: Springer.
- Sjursen, H. (2006a). The EU as a ‘Normative Power’: How Can This Be? *Journal of European Public Policy*, 13(2), 235–251.
- Sjursen, H. (2006b). What Kind of Power? *Journal of European Public Policy*, 13(2), 169–181.
- Smith, M. (2004). Toward a Theory of EU Foreign Policy-Making: Multi-Level Governance, Domestic Politics, and National Adaptation to Europe’s Common Foreign and Security Policy. *Journal of European Public Policy*, 11(4), 740–758.
- Stern, J., & Rogers, H. (2014). *The Dynamics of a Liberalised European Gas Market. Key Determinants of Hub Prices, and Roles and Risks of Major Players* (OIES Paper NG 94).
- Tusk, D. (2014, April 21). A United Europe Can End Russia’s Energy Stranglehold. *Financial Times*.
- Waelde, T. (1995). International Investment under the 1994 Energy Charter Treaty: Legal, Negotiating and Policy Implications for International Investors Within Western and Commonwealth of Independent States/Eastern European Countries. *Journal of World Trade*, 29(5), 5–72.
- Went, R. (2004). Globalization: Can Europe Make a Difference? *Review of International Political Economy*, 11(5), 980–994.
- Whitman, R. G. (2011). *Normative Power Europe: Empirical and Theoretical Perspectives*. London: Palgrave.



CHAPTER 3

The EU's Strategy Towards External Gas Suppliers and Their Responses: Norway, Russia, Algeria and LNG

Svein S. Andersen and Nick Sitter

INTRODUCTION

Sometimes there is a good fit between a country's internal political economy and institutions and its strategies for managing international political economy—but not always. Between the 1930s and 1960s, the 'Seven Sisters'—Anglo-Persian Oil Company (later BP); Gulf Oil, Standard Oil

The authors would like to thank the participants of the NUPI's EUNOR workshops in 2016 and 2017 for valuable feedback on earlier versions of this chapter.

S. S. Andersen (✉)

Department of Leadership and Organizational Behaviour,
BI Norwegian Business School, Oslo, Norway

N. Sitter

BI Norwegian Business School, Oslo, Norway

Central European University, Budapest, Hungary

e-mail: Sittern@ceu.edu

© The Author(s) 2019

J. M. Godzimirski (ed.), *New Political Economy of Energy in Europe*, International Political Economy Series,
https://doi.org/10.1007/978-3-319-93360-3_3

of California (SoCal), Texaco (these three companies later forming Chevron); Royal Dutch Shell; Standard Oil of New Jersey and Standard Oil Company of New York (Socony) (these two companies later forming ExxonMobil)—set global production quotas and operated as a cartel on the international market, with the connivance of the US and British governments while competing against each other in their home markets in accordance with national rules and regulations on antitrust and competition law. At the same time, and throughout the rest of the Cold War, the Soviet Union's Soyuzgazexport gas export monopoly—based on a command economy at home—sold gas like any other free-market company to many West European states (Estrada, Bergesen, Moe, & Sydnes, 1988; Gustafson, 1989).

For various reasons, the European Union has generally sought to achieve greater consistency between its internal and external energy policies. The EU is very much a 'regulatory state' in terms of the tasks it is charged with and the tools that it has been given to meet these objectives (Andersen & Sitter, 2015a; Goldthau & Sitter, 2015a, 2015b). As the EU must import much of the energy it needs, exerting some influence on the supplier countries is desirable. The result has been an element of 'external governance à la carte'—the EU has used a range of tools to deal with its external gas suppliers.¹

In this chapter, we have chosen to focus on the EU's gas relationships, for several reasons. First, there is a very strong infrastructure connection between the EU and its current suppliers of gas. This strong and rigid infrastructural connection limits the ability of these external suppliers to redirect their supplies to alternative markets. They are therefore exposed not only to EU's regulatory regime but also to the EU's market power. Second, from the EU perspective, gas has increasingly become a strategic good. The EU's dependence on gas imports from Russia—in a regional market where the importance of infrastructure means that the EU is locked into a relationship with the large empire on its eastern border—gives the issue of gas imports a security dimension. Poland and the Baltic states have been driving forces in developing this security gas agenda, not only because Russian gas has a dominant position in their national markets but also because of history and Russia's new assertiveness. For states that fear Russia's efforts to undermine the cohesion of the West, gas is readily seen as a foreign policy tool with a strong security dimension. Third, both the

¹ These issues are dealt with in detail in Chap. 2 of this book, whereas our focus is on how the EU has influenced the strategies of its key external gas suppliers.

European and global gas markets are undergoing considerable structural changes driven by LNG technology and new volumes of gas on the global market, making gas a much more flexible commodity. LNG is comparable to oil in the sense that it is a more fungible good than pipeline gas: one shipment can easily be substituted for another. Consequently, falling LNG prices have an increasingly direct effect also on pipeline gas supplies through long-term contracts. This has begun to transform regional gas markets into a globalized market. Fourth, like all producers of fossil fuels, gas producers have to deal with the EU policy that aims at a more sustainable energy system driven by concern for climate change. However, natural gas is sometimes presented as the ideal transition fuel.² If gas can play a major part in the transition towards a greener energy system, the prospects for gas might be somewhat brighter than those of oil and coal.

In this chapter, we focus on the EU's three main external gas suppliers: Norway, Russia and Algeria. These three account for well over four-fifths of the EU's gas imports (see Fig. 3.1). They have long been the EU's main external sources of gas, and are likely to remain so, even with the increasing role of LNG. If the USA and Qatar seek to increase their market shares, exporters of pipeline gas can respond by price cuts, given the sunk costs of infrastructure. The EU's single largest source of LNG and its

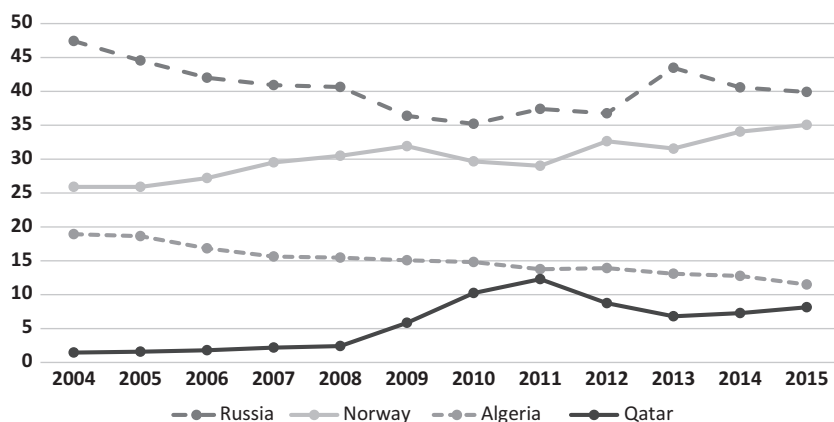


Fig. 3.1 Share of EU gas import, by source. (Source: Authors' calculations, data from Eurostat)

²This has been argued by, inter alia, Indra Øverland: see Chap. 4 in this volume.

fourth-largest gas supplier for most of the past decade has been Qatar, with Libya and Nigeria alternating in fifth and sixth place, depending on local political and economic dynamics.

All gas suppliers must, as a minimum, comply with Single European Market (SEM) regulations (Nyssens, Cultrera, & Schnichels, 2008; Talus, 2011, 2012). Algeria, like most of the EU's LNG suppliers, simply sells gas at the SEM border—unlike Norway and Russia, who have long sought a much stronger presence in the EU market. Through the European Economic Area (EEA) Agreement, Norway has become a member of the internal market, for all practical purposes.³ Russia has entered the internal market through cooperation, ownership and joint ventures while using contracts to circumvent and undermine internal market regulations.⁴ All firms that sell gas on the EU border must comply with EU rules on contracts and cross-border trade. For example, in 2000 the Commission started investigating the 'destination clauses' whereby gas exporters restricted the buyer's freedom to resell gas anywhere in the EU or demanded a share of the profits in the case of resale. Such arrangements were seen as restricting cross-border trade and violating EU competition law (EU Treaty, Article 102.2). By 2010, the Commission had obliged Russia's Gazprom, Algeria's Sonatrach, Norway's Statoil and Norsk Hydro as well as a Nigerian LNG exporter NLNG to end this practice. If non-EU companies want to operate in the SEM, they must also comply with a broad range of SEM rules. Since the Commission opened proceedings against Gazprom in 2012 to investigate whether the company and its EU subsidiaries might be hindering competition in Central and Eastern European gas markets, the Russian monopoly exporter has altered its pricing policies dramatically (Kanter, 2015). In effect, Gazprom faced a choice: either withdraw from the downstream and transit market and simply sell gas at the border or comply with the EU rules for the single gas market.

In what follows, we investigate the EU's strategies for dealing with its main external gas suppliers. The central themes are how the EU's strategy for managing gas import has worked out in practice and how non-member states have responded to the EU's gas foreign policy. The first section sets out the EU's overall strategy. The next three sections focus on the EU's relationships with Norway, Russia, and Algeria and LNG exporters. Each

³ See Chap. 6 of this volume for further details.

⁴ See Chap. 5 for more on this, as well as Russia's formal and informal channels of influence.

section runs through the history of the EU's relationship with the non-EU supplier and examines that country's response to the EU. In the concluding section, we argue that external suppliers ultimately face the choice between playing according to SEM rules and simply selling gas at the EU border. This experience is likely to prove pertinent to the British government as it explores the options for post-Brexit relations with the EU—but that is a rapidly moving target beyond the scope of this chapter.

EU EXTERNAL GOVERNANCE À LA CARTE IN THE GAS SECTOR

The transformation of the EU gas market towards an integrated European market has been a protracted process. With the Third Energy Package in 2009, the Commission extended the scope of its regulatory mandate and tools considerably. In this sense, the last decade has represented a leap towards integration. Nevertheless, the EU gas market is still made up of several national markets. The regulatory framework emphasizes and supports liberalization in principle, but the EU has had to acknowledge the considerable national efforts aimed at maintaining and accommodating diversity and managing heterogeneity (Andersen & Sitter, 2009, 2015b). Member states differ significantly, not only in terms of their natural resources, import dependency and infrastructure but also as to how they organize their gas markets, down to and including asset pricing and accounting rules (Helm, 2014).⁵ In several member states, energy is considered a strategic resource, which in turn gives that state strong legitimacy for intervention (Goldthau & Sitter, 2015a). Indeed, when the Single Market project got underway, the Commission concluded that gas market practices represented a counterculture to its core values and principles (Andersen, 1993). As all member states except the UK opposed gas market liberalization (Lyons, 1994), the ensuing efforts to create a single market for energy had to accept various modifications of the liberal market model in line with intergovernmental governance.

This pragmatic approach to EU governance in the energy sector, not least the Commission's effort to accommodate and manage member-state diversity, has drawn attention of the academic community. Energy could be considered a prime example of 'new intergovernmentalism' as a type of

⁵ <https://ec.europa.eu/energy/en/topics/imports-and-secure-supplies/supplier-countries/download>. Retrieved 4 September 2016.

EU governance (Andersen & Sitter, 2015b). This pragmatic approach is based on the need to manage heterogeneity and accommodate diversity. Four mechanisms have played a prominent role in shaping energy policies in ways acceptable to a set of ‘ever more heterogeneous’ member states. This is not only because of the enlargement of the EU in sheer numbers but also because Eastern enlargement brought in states with very different historical experiences, energy infrastructure and exposure to recent Russian geopolitical manoeuvres. Sources of member-state diversity include the difference between liberal and protectionist states (Andersen, Goldthau, & Sitter, 2017), differing priorities stemming from domestic political economy models (including different levels of rent-seeking and corruptions; Nosko & Misik, 2017) and also the fact that new member states depend far more on Russia—and Gazprom—for gas supplies (Boussena & Locatelli, 2013). Some of those that depend on Russia—but not all (Hungary being an important exception)—have emphasized the security dimension of energy. Most West European member states view liberalization as force that drives lower prices for consumers and secures access to resources. For others member states, however, price cuts mean an increase after communist-era subsidized prices.

First, the EU has decided to limit the reach and content of supranational rules. This has included acceptance of parallel member state authority, as well as a pragmatic search for legal formulations that often emphasized the principles, at the expense of specifics. This is exemplified by Article 194 of the Treaty of Lisbon, which defines the division of labour and responsibilities of the EU and member states in the field of energy. The Treaty provides flexibility and room for interpretation. Already from the beginning, with the first gas liberalization package in 1998, the Commission made concerted efforts to preserve a degree of national autonomy in energy policy that would be compatible with an EU-level market-based model (Andersen & Sitter, 2009; Helm, 2014).

Second, as regards regulatory model and tools, the Commission has accepted the involvement of the member states and their agencies in operational decision-making and implementation on a consensual basis. Through deliberation, time-consuming efforts have been made to hammer out policy compromises that all member states can live with. The establishment of the Agency for the Cooperation of Energy Operators (ACER), which became operational in March 2011, involved a newer form of delegation to the EU, in the sense that the EU agents were national delegates.

Third, the increased heterogeneity of the enlarged EU has made the Commission sensitive to the concerns of member states reluctant to push liberalization too far or too fast. However, enlargement also has made energy just one of many domains where the Commission has departed from its pro-integration priority. As explained in Chap. 2, Poland has played a considerable role as the driver behind the security priorities of the EU's Energy Union.

Fourth, all three gas liberalization packages have preserved and expanded the considerable freedom for states to regulate their national markets in the future. The Commission's acceptance of diversity, by testing new approaches gradually through trial and error, has been described as new form of 'experimentalist governance' (Sabel & Zeitlin, 2011). Decisions on energy policy are taken jointly by the EU and its member states, with the EU defining objectives, delegating responsibility for implementation to member states, and revising policy after evaluating implementation.

The central point here is that even if the EU faces a simple homogeneous challenge in terms of security of gas supply, the Commission has to accommodate a heterogeneous set of member state government preferences and gas-related concerns. In reality, heterogeneity in the energy sector is multiplied by the many other challenges—in terms of magnitude and type—facing the EU. Importantly, the EU gas sector is increasingly affected by environmental and climate policy.⁶ The impact of fossil fuels on climate change has forced the EU and its member states to think carefully about the future role of gas as a source of energy. Ever since the Commission embarked on its efforts to extend the internal market liberalization programme to the energy sector, EU policy has been shaped by three broad priorities: security of supply, sustainability and competitiveness. In EU policy towards external suppliers of gas, the security dimension has remained more salient than the environment issue. However, these two priorities might reinforce each other: lower overall EU consumption of fossil fuels could lead to lower import dependency. This also means that this chapter on EU relations with external suppliers of gas also deals indirectly with questions pertaining to EU climate policy.

In the next four sections, we examine the cases of Norway, Russia, and Algeria and LNG. Much of the debate on LNG has centred on the shale gas revolution and the possible role of the USA. President Donald Trump made much of this when he visited Poland in July 2017, just after the

⁶ As discussed in detail by Indra Øverland in Chap. 4.

country had received its first shipment of LNG from the USA (for more on US energy relations with the EU, see Conley, Ladislav, & Hudson, 2015). The issue of the USA as a major supplier of gas to the EU is unlikely to give rise to new questions about the gas trade, as this is mainly a matter of selling gas at the border. But in the medium to long term, it might prompt new business models, which in turn could give rise to regulatory questions. Of more immediate importance are the political and security aspects of US gas, as US exports to the EU—and particularly to Poland and the Baltic states—could amount to contribution by a strategic ally to alleviating concerns about Russia and its geopolitical machinations. In fact, Lithuanian LNG imports are served by a Norwegian regasification ship named *Independence*. Both the USA and the EU have shown considerable understanding of the fears of some member states that the Russian gas market share might prove be a threat not only to their energy supply but also to their hard security.

NORWAY: INTEGRATING A NON-EU STATE INTO THE SINGLE EUROPEAN MARKET

In this brief section, we focus on the main aspect of Norway's energy relationship with the EU: the adaptation of the country and its state-owned companies to the rules of the game as laid down by the EU.⁷ As shown in Fig. 3.1, Norway is one of the key suppliers of gas to the EU. According to official statistics, Norway exported 1,707,951 bcm of gas in the period between 1994 (when the country joined the EEA) and 2016 (see also Fig. 3.2).

With the exception of relatively small volumes of Norwegian LNG shipped to markets beyond Europe's borders, most Norwegian gas was brought to the EU by pipelines. The first significant exception was Statoil's five-year contract to ship 0.54 bcm/y LNG to Lithuania, using the above-mentioned *Independence* (Johnson, 2014). *Independence* has the capacity to re-gasify 4 bcm annually (or 75 per cent of the entire gas market of Lithuania, Latvia and Estonia), but traded volumes are far lower. A series of mild winters led to renegotiation of the contract and its

⁷For more detailed examination of the special features of the energy relationship between Norway and the EU, see Chap. 6 of this volume by Ole Gunnar Austvik; Chap. 5 by Jakub M. Godzimirski deals with Norwegian—and Russian—strategies of influencing EU energy policy.

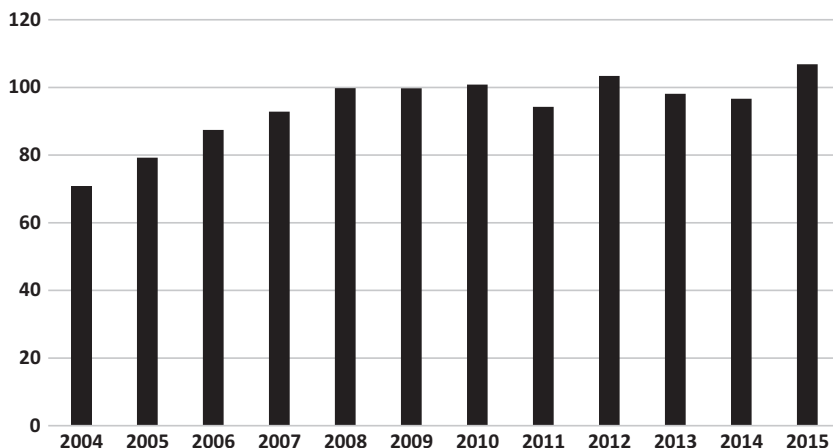


Fig. 3.2 Norway's gas exports to the EU, 2004–2015. (Source: Data from Eurostat)

extension to a ten-year period at the lower yearly volume of 0.36 bcm. Even if LNG is very attractive to Lithuania for geopolitical reasons, it is unlikely to replace piped gas from Russia as long as the LNG comes at a substantially higher price. The point is not that the pipeline gas is Russian but that gas supplied through existing infrastructure can be sold at a cheaper price. Lithuania killed two birds with one stone: the LNG terminal provided both improved security through an alternative point of import and an alternative to Russian gas that allowed the Lithuanians to negotiate lower prices. For Norway, however, this is a small part of its exports to EU/EEA countries (see Table 3.1).

Norwegian gas export to the then-nine EU states dates back to 1977; 40 years later, in 2017, it exported a record of 123 bcm of gas (Ask, 2017). The well-developed network of gas pipelines is used to supply Norwegian gas directly to six terminals in the UK and on the continent, from which gas is shipped to customers further down in the market. The first exports went to the British Gas Corporation, through a pipeline from Norway's Frigg field to St Fergus in Scotland and by pipeline from Norway's Ekofisk field to Emden in Germany, to a consortium composed of Ruhrgas (Germany), Gasunie (the Netherlands), Gaz de France and Distrigas (Belgium). By 2017, Norwegian gas was reaching markets as far away as Ukraine in the east and Italy and France in south and west.

Table 3.1 Key importers of Norwegian gas in EEA area, 1994–2016

<i>Country</i>	<i>Cumulative volume of gas export 1994–2016 in bcm</i>
Germany	594.4
UK	361.4
France	295.0
Belgium	165.2
Netherlands	119.6
Italy	65.5
Spain	40.6
Czech Republic	39.3
Denmark	15.8
Austria	7.6

Source: data from SSB Tabell 08801: Utenrikshandel med varer, etter varenummer (HS) og land

However, Germany and the UK are the most important markets for gas from Norway. The prospects for future gas trade between Norway and Germany appear rather unproblematic. The possibility of an additional 55 bcm of Russian gas via Nord Stream 2 to Northern Germany is more likely to entail replacing Russian gas via Ukraine than reducing Norway's market share. In addition, Norwegian gas may get access to new markets in Central and Eastern Europe if the Baltic Pipe project linking Norwegian gas fields via Denmark with Poland with 10 bcm/y capacity can be realized as planned by 2022.

Production and trade were regulated by Norwegian North Sea licences issued to international oil companies in the 1960s. However, as the gas trade with monopoly gas utilities or consortia in the EU member states grew, the Norwegian government established an export monopoly in the form of the Gas Negotiation Committee (GFU) in 1986 to negotiate with its heavyweight counterparts. This model covered all gas production licensed after 1985. It had the additional advantage of making coordinated management of oil and gas production easier, because it did not link export contracts to gas from any specific field (Andersen, 1993; Austvik, 2001). Because the extraction of gas affects the pressure in oil wells, the option of switching production between fields made it easier to optimize oil production.

Liberalization of the EU gas market was not on the agenda when Norway and other EFTA countries negotiated the EEA Agreement. However, when this agreement between the EU and most of the EFTA states came into effect in 1994, the Norwegian gas market came under the

EU regulatory regime and its SEM rules. From that moment, Norway could for all intents and purposes be considered an internal EU gas supplier, although it had to accept the 1998 EU Gas Directive (and its 2003 and 2009 successors) without being able to participate in the decision-making process. The most dramatic effect of the EU's efforts to liberalize its internal gas market came when Norway was forced to disband its GFU-coordinated gas sales in 2001. As a result of the settlement reached with the Commission, the dominant Norwegian companies Statoil and Norsk Hydro had to discontinue all joint marketing and sales agreements. They also had to commit to make available certain volumes of gas for new customers who had not bought gas from Norwegian suppliers previously (Lindroos, Schnichels, & Svane, 2002: 50–51).⁸

Norway is not a member of the EU, but since 1994 it has adhered to the EU's internal market rules and regulations through the EEA Agreement. For Norway, an arrangement that was originally designed as a possible stepping stone to full EU membership became permanent and an acceptable second-best solution for most political parties. This reflected the country's strong asymmetric dependency on the EU market. However, the liberalization of the EU gas markets was aimed primarily at serving consumer needs. The EEA was not the source of this asymmetry, but it institutionalized Norway's role as a policy-taker and provided an arena for managing this. Norway's response to the EU's liberalization of gas markets involved an element of compliance with EU law—but there was also an element of creative adaptation, aimed at achieving the old goals of coordinated gas production and sales in the new, liberalized regulatory environment. The Norwegian state continued to exert control over gas exploration and production through both the regulatory regime and its ownership of Statoil and Norsk Hydro. Because those two state companies had a dominant ownership position in major fields, the effect in terms of gas-to-gas competition was far more limited than the rhetoric around the case indicated. (In fact, the two companies eventually merged in 2007, with the approval of the EU competition authorities.) Moreover, in 2001 the government established a state-owned pipeline operator—Gassco—that worked with all gas-exporting companies, in anticipation of the EU's new rules on third-party access and transmission systems operators in the second and third regulatory packages in 2003 and 2009.

⁸The Commission successfully settles GFU case with Norwegian gas producers; European Commission, IP/02/1084 17/07/2002, http://europa.eu/rapid/press-release_IP-02-1084_en.htm.

Today's EU–Norway relationship as regards gas is very much an effect of EU efforts to bring the Norwegian gas sector in under SEM rules, but the legal framework and tools applied by the Commission have been those that apply to EU member states. For successive Norwegian governments, the pragmatic overall need to be part of the EU internal market (despite the 1994 referendum that resulted in the decision not to join the EU) has taken priority over energy policy. Still, Norway has been able to exploit this legal space to defend, at least partially, two major interests. First, the extension of the SEM to Norway did not bring about the kind of gas-to-gas competition that the Commission had envisaged—due to the dominant state ownership in Norway's major gas fields. Second, within the new regime, the Norwegian state could, like any private owner, influence commercial strategies. This governance capacity was reinforced by the merger of Statoil and Hydro. Norway was able to reposition itself as a major player in the EU's internal market, but commercial strategies were increasingly left to Statoil—although the Norwegian state still has ambitions of shaping both Norwegian and EU energy policies.⁹ Ironically, this probably ended up serving the EU's security of supply goals better than a fully liberalized model would have done, because it made possible the kind of long-term infrastructure investment that offshore gas production and sales require (Andersen & Sitter, 2015a). Still, through these arrangements, Norway's compliance with EU competition law in the gas sector goes well beyond that of many EU member countries, so it would make more sense to regard Norway as an *internal* gas supplier to the EU.

RUSSIA: GEOPOLITICAL STRATEGY AND MARKET TACTICS

Like Norway, Russia has aimed at becoming not only an exporter to the EU but also a major player in the internal market. However, in contrast to Norway and Algeria, Russia has caused considerable concern in the EU about security of gas supplies in recent decades. Worries that gas sales could be used as a foreign policy instrument to promote imperial ambitions (Correlje & van der Linde, 2006) date back to the Soviet Union's first gas exports to Austria and Germany in 1968 and 1973, respectively, albeit voiced more strongly in Washington than in Brussels. As it turned out, the 'gas weapon' was never used during the Cold War. Soyuzgazexport

⁹ As detailed by Godzimirski, Chap. 5 in this volume.

entered into long-term contracts with various West European utilities companies and attached destination clauses to prevent price arbitrage between the EU's nationally segmented markets. After the collapse of the Soviet Union, the new Russian state-owned Gazprom was set up as a vertically integrated production and export company; it inherited Soyuzgazexport's foreign contracts. The risk-sharing regime remained the same as under communism: importers agreed to take a given amount, at prices pegged to the oil price. The price risk remained with Gazprom, whereas the EU importers held the volume risk. This had long-term advantages for both sides—Gazprom was able to invest in exploration and infrastructure because a certain volume of sales to the EU was guaranteed; EU utilities were protected against the Russian giant abusing its dominant position in the markets to extract excessive monopoly rent.

The EU's first strategy for dealing with the future of EU–Russia energy trade after the end of the Cold War involved an effort to bring Russia into a wider international trade regime for energy production, transit and trade. But the Energy Charter Treaty failed to provide a GATT-equivalent regime for gas (Andersen & Sitter, 2009; Belyi, 2012). However, Russia remained the biggest single source of EU gas imports (see Figs. 3.1 and 3.3). With the ascendancy of Vladimir Putin, Russia rejected the international market perspective on gas trade. Gas was viewed as a strategic good, and Russian export strategy developed strong mercantilist elements (Cameron, 2009; Youngs, 2009; Godzimirski, 2013).

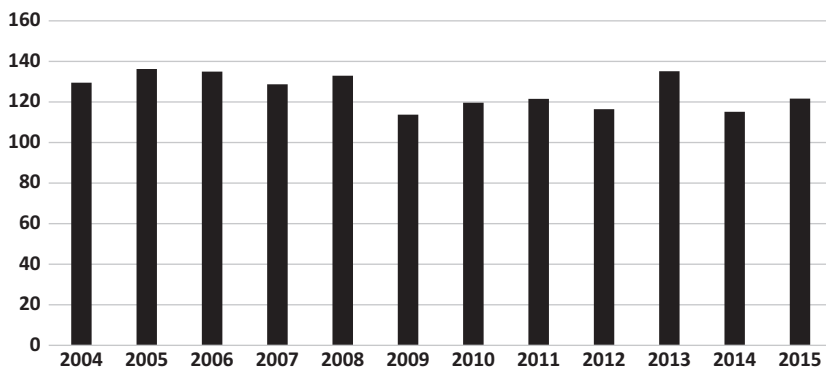


Fig. 3.3 Export of Russian gas to the EU 2004–2015, bcm/year. (Source: Data from Eurostat)

In response the EU has, since 2000, tried to shape its relationship with Russia through the Energy Dialogue. However, the most powerful tool in the EU's external energy toolbox has been competition law.¹⁰ The EU failed in its efforts to promote pipeline projects (like the Nabucco pipeline) that would open up routes to other suppliers, reducing European dependence on Russian energy. This was also the case for the EU's diplomatic efforts to influence the Caspian Development Corporation (Verda, 2015). However, the EU has had considerably more success with the external application of EU regulation and competition law. Such influence is illustrated in the case against Gazprom contracts violating competition law (Riley, 2012), the Commission preventing member states entering privileged agreements with Russia on the South Stream, and the challenge to German regulators granting exemption from free access to the OPAL pipeline.

The EU dependence on Russian gas supplies gives rise to two main concerns. One has to do with security of supply. Such concerns grew with the Russian–Ukrainian ‘gas disputes’ in 2006 and 2009 and even more in the aftermath of the conflict in Ukraine in 2014. Gazprom's disputes with Ukraine's Naftogaz may be explained in terms of strictly commercial concerns, but they also have a political dimension that has been exacerbated by Russia's annexation of Crimea. According to a 2006 report from the Swedish Defence Research Agency, more than half of the 55 cut-offs of Russian gas to Europe between 1995 and 2006 were politically motivated, and almost all had a political dimension (Larsson, 2006: 262). The other major concern relates to Russian attempts—through Gazprom—to weaken or undermine EU competition law. Such efforts have been exercised as an economic divide-and-rule tactic, to defend strategic goals and to maximize economic rent (Smith, 2008). However, by tough responses involving regulation, the EU has forced Gazprom to alter its business models. Evidence from the past decade indicates that, despite Putin's efforts to the contrary, Gazprom has increasingly been obliged to comply with EU law and to adapt to changing conditions on the European gas market (Riley, 2012; Grigoriev, Golyashev, & Analiticheskii tsentr pri pravitelstve Rossiyskoy Federatsii, 2016). This leaves Russia with the choice between pulling out of the mid- and downstream businesses (as it has done in part of the Baltics) and adopting a commercial strategy compatible with EU rules and regulations.

¹⁰See Goldthau and Sitter, Chap. 2 in this volume.

ALGERIA AND LIQUEFIED NATURAL GAS: SELLING GAS AT THE BORDER

Algeria began exporting gas to Western Europe in the 1960s. The first shipments of LNG from Algeria to the UK in 1964 and Spain in 1969 were first exports of LNG anywhere in the world. Gas exports by pipeline followed in 1983, with the Enrico Mattei line to Italy via Tunisia. A second pipeline, to Portugal and Spain, followed in 1996. Pipeline capacity to both Spain and Italy has since been increased. The entire value chain, from production to sales at the EU border, is owned by the state-owned Sonatrach. It operates a series of joint ventures in production but retains a monopoly on gas exports. Most of the trade with the EU is governed by take-or-pay contracts. Because Algerian state is heavily dependent on gas exports, the EU and its member states have not been overly concerned about long-term security of supply. The country's oil and gas sector accounts for about more than half of its GDP and more than 95 per cent of its export earnings and has long accounted for some 60 per cent of budget revenues (Entelis, 2012). Because no government can afford to risk trying to use gas sales as a foreign policy instrument, the danger concerns the possibility of short-term disruption caused by war or terrorist attacks—like the one in In Amenas in 2013. Indeed, this has been the gist of industry reports on the Algerian gas sector for decades and is unlikely to change.

The Algerian model is the very opposite of the Norwegian and Russian approaches to gas sales to the EU. Gas is sold at the EU border—full stop. Algeria and its gas export monopolist Sonatrach have made little or no effort to enter the downstream market in the EU, let alone shape EU gas market policy.¹¹ Conversely, EU policy has had very little effect on Algeria's domestic gas sector (Entelis, 2012). Sonatrach dominates the country's whole hydrocarbon sector, controlling more than four-fifths of production. To be sure, Algeria has complied with Commission rulings on take-or-pay—but has kept trading with the EU on the basis of long-term contracts. Most of these begin to expire in 2019 and 2020 (Reuters, 2017a). Like many other states that are heavily dependent on oil and gas revenues, Algeria faces a choice between cutting prices or cutting volumes when markets fall. When the 2008 financial crisis caused EU demand to fall, Sonatrach responded by reducing LNG supplies to the spot market

¹¹ This is also evident from the fact that its lobbying efforts in the EU have been minimal; see Godzimirski, Chap. 5 of this volume.

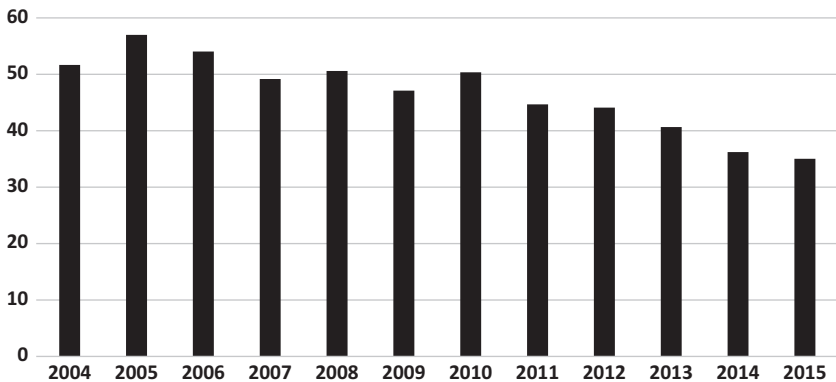


Fig. 3.4 Algeria's gas exports to the EU, bcm/y. (Source: Data from Eurostat)

rather than selling at lower prices (Darbouche, 2011). The country also faces security challenges and changes in domestic demand that might constrain future exports. The 2013 terrorist attack on the In Amenas gas plant, operated by Sonatrach, Statoil and BP, caused international oil companies to revise their policies for participation in the Algerian gas industry. Increasing domestic demand for oil and gas is driven by population growth while gas production is facing a trend of stagnation and decline (Aissaoui, 2016). Algeria's exports to the EU dipped in 2014 and 2015 (see Fig. 3.4), although in 2017 Sonatrach held out the prospects of an increase in gas exports to make up for the decline in oil revenues. In the words of CEO Abdelmoumen Ould Kaddour: 'Our new strategy is to sell everything we can' (Reuters, 2017b).

In short, the EU's liberalization of its internal gas market has had no direct effect on Algerian gas policy. However, it has an indirect effect, because changes in the EU market have put downward pressure on the gas price. Across the EU, the logic of long-term contract-based pricing is giving way to prices that reflect daily trading on spot markets (Grigoriev et al., 2016). This, combined with oil price shock in 2014/2015, prompted a rethink of Algerian oil and gas policy. The government first sought to cut production and defend price but later moved to a strategy of maximizing exports. This has involved seeking to attract foreign firms and investment to upstream activities, but not much efforts at penetrating the downstream market in the EU. The effects of EU politics and policy

are transmitted primarily through market mechanisms—the downward pressure on prices and declining prospects for long-term (oil-indexed) gas trading. As the current long-term contracts come to an end, it is likely that this trend will intensify.

Algeria's LNG trade includes companies that prefer selling gas through long-term contracts and companies operating on the spot market. LNG sales to Western Europe date back to 1964, when Algeria began to supply France and the UK. In the first few decades, the EU's LNG trade was characterized by long-term contracts, limited infrastructure and small volumes. Nigerian LNG to Italy was one of the types of trade targeted by the European Commission when it broke up destination clauses.

However, the EU's biggest supplier of LNG uses the spot market. *Qatar* supplies more than half of the EU's LNG: more than twice as much as Algeria and four times as much as Nigeria. Qatar's LNG exports to the EU peaked in 2010 and 2011, primarily because of the increase in UK gas imports (see Fig. 3.5). Over the last decade, the LNG trade into the EU has increasingly become a matter of EU companies buying LNG on the global spot market (Molnar, Behrens, Egenhofer, & Genoese, 2015). However, because of fluctuations in the volumes of spot-market imports, the ratio between spot and contract pricing varies considerably year by year (Franza, 2014). This makes for some similarities to world trade in oil

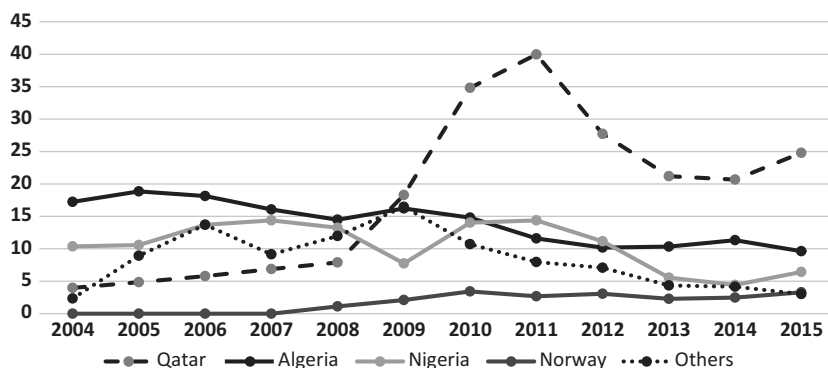


Fig. 3.5 Global LNG exports to the EU. (Source: Authors' calculations, data from Eurostat ('Others' = Trinidad & Tobago, Peru, Oman, Russia, Equatorial Guinea, Egypt, Libya, USA, Malaysia, UAE and Australia, in descending order for 2015))

but with higher transportation costs and more complex infrastructure. LNG shipments can therefore come in at prices both far above and far below the regional long-term contracted gas. In its 2016 Medium-Term Gas Market Report, the IEA predicts that Australia will overtake Qatar as the world's biggest LNG exporter by 2020, with the USA in third place (IEA, 2016).

The changing role of LNG in the European gas market is part of a global trend in gas trade, driven partly by the US shale gas revolution. LNG prices are now converging, after the big gap between the US, EU and Japanese markets following the 2011 Fukushima nuclear disaster. In 2014, the price of LNG going to Japan (which accounts for more than a third of global LNG trade) was more than four times the US Henry Hub gas price and double the price of most gas traded in the UK and Germany. Two years later, the Japanese price had almost closed the gap with the EU, even as EU gas trading approached the US price level (BP, 2017). Firms that export LNG on the spot market are price-takers. As the price hike of LNG in Japan after the 2011 nuclear accident showed, such LNG cargoes are easily diverted to the highest international bidder. At the peak of UK imports of Qatari gas (at about the same time), market analysts pointed out that the UK was vulnerable both to being outbid in the market and literally losing cargoes on the high seas (*Financial Times*, 2012).

From the European Commission's perspective, the LNG trade is looking more and more like the global oil market, in terms of both risks and benefits. Like the oil market, the risk comes primarily in the form of price volatility. However, LNG has the additional political benefit of providing a direct alternative to Russian gas. In terms of energy security, this alternative source of supply constitutes a public good—which the EU can support. For example, in February 2017, the Commission announced that the EU could provide €102 million in support of an LNG terminal on the Croatian island of Krk, to help the region diversify from reliance on Russian gas (EU Commission, 2017). Supporting and promoting LNG is thus very much an effort on the part of the Commission, the European Parliament and many EU member states to strengthen competition in the gas market and improve security of supply by diversification. But, as in the case of pipeline construction across the Mediterranean to North Africa, from the EU's side, this is all about improving infrastructure and reducing market failures—it is in no way an attempt to influence the domestic policies of market arrangements of the producer states.

CONCLUSIONS: SMALL AND LARGE EXPORTERS AND EU EXTERNAL GAS POLICY

The EU's three main gas suppliers—and those supplying LNG—have adopted very different strategies vis-à-vis the internal market. The EU has responded to the challenges and concerns by applying a kind of variable foreign policy geometry that leaves exporters with two broad options: either sell gas at the border, subject to the EU's rules on contracts, or participate in the EU mid- and downstream markets and comply with all its rules and regulations. Algeria and other LNG suppliers have chosen the first strategy, whereas Norway has chosen the second, for reasons extending far beyond the strictly sectoral concerns of a gas exporter. Russia has opted for a third strategy—a mercantilist policy based on the conception of gas as a strategic good and the marketplace as a power struggle defining the terms of trade. This final section offers some conclusions as to the successes and limits of each of these choices.

First, the simplest strategy is simply to sell energy at the EU border and forego any commercial advantage or profits that might be achieved by engaging further downstream. This is the option chosen by Qatar, Nigeria and Algeria and is the likely option for US and Australian companies that export LNG. (This could become a model for the UK after Brexit, if the government opts for 'hard Brexit', that is, no participation in the SEM).

Second, of the EU's external gas suppliers, Russia is the only one that has systematically treated gas as a more than a commodity. For Russian leaders, international gas trade has strategic implications. Creating dependence on Russian supplies through infrastructure with few or no alternatives is a way of deploying the gas weapon and thus wielding some political influence. Russia has not used this weapon directly against EU member states—but it has a set of tools that could be deployed in Europe if needed and that have been deployed in other, more vulnerable, areas (Larssen, 2006; Orttung & Overland, 2011). However, when Russia cut off gas supplies in disputes with the Ukraine, there were severe consequences for some EU states and for EU's approach to Russia. An important disciplining factor here is the fact that Russia is also heavily dependent on exports of gas and oil to the EU (Kardaś, 2016, 2017). But even when Gazprom acts as a commercial actor, it has used strategies designed to divide and rule on the European market, through attempts to prevent resale of gas and differential pricing to maximize economic (monopoly) rent even in cases with no political dimension.

Such strategies have not worked very well recently. Russia has experienced severe political backlash in the Baltics, and the Energy Union project is aimed at strengthening EU resilience and policy coordination. In consequence, Gazprom is increasingly forced to retreat beyond the EU borders or adapt to the requirements of EU competition law (Boussena & Locatelli, 2017). This indicates that, even if the UK government opts for ‘hard Brexit’, any British companies wanting to do more than simply sell gas at the border might well have strong incentives for complying with the full range of EU regulations as the price to be paid for fully accessing the SEM. In other words, British companies might not be in a position to benefit from their country’s withdrawal from the EU and its regulatory regime.¹²

Third, the EU’s approach has proven far more favourable for small open economies—like that of Norway—that opt for flexible adaptation rather than resistance (a strategy discussed in more detail in Chaps. 5 and 6 of this volume). There are at least three reasons for that. First, due to the heterogeneity of the EU, the EU regime has been pressured to accommodate considerable diversity of national models for energy governance. This has limited the actual changes to oil and gas policy and practices that Norway has had to introduce when adapting to EU competition law. Second, the EU regime is very much designed and shaped by consumer countries—hardly optimal for an exporter like Norway. However, like other small West European states, Norway has developed a capacity for creative flexibility when faced with external pressures beyond its control. Due to the strong role of the state in the oil and gas sector, as regulator, passive owner and participant through a state-owned company, Norway has been able to reorganize its commercial interests in a way that can accommodate the requirements of EU competition law as well as the need to defend its own role as a big gas exporter. Third, Norway realized that the EU regime could offer a stable framework that provided at least a certain level of predictability and protection from political processes over which Norwegian actors had little influence. This seems to have been an important factor behind the seemingly paradoxical finding that Norway has emerged as one of the staunchest supporters of the EU liberal regime and a strong critic of efforts to elaborate a more assertive, mercantilist or

¹²For the claim that EU regulation adds billions of euros to overall UK energy bills and that Brexit would make consumers better off, see ‘A chance to take £33bn burden off shoulders of small businesses’ <http://www.thesundaytimes.co.uk/sto/news/Politics/article1670391.ece> and <https://britain-europe.com/2016/03/24/the-costs-and-benefits-of-eu-energy-and-climate-policy/>.

state-driven EU gas policy, as noted in Chap. 2 of this volume by Goldthau and Sitter. Like many other small states, Norway has come to rely on and appreciate the stability and predictability that an open liberal rule-based system entails. This model offers some insights into what ‘soft Brexit’—that is, a compromise that involves full UK participation in the SEM—might entail for the British and UK energy market. That topic deserves greater attention from the academic and policy-making community—but, this lies beyond the scope of analysis in this chapter.

REFERENCES

- Aissaoui, A. (2016). *Algerian Gas: Troubling Trends, Troubled Policies* (OIES PAPER NG 108).
- Andersen, S. S. (1993). *The Struggle Over North Sea Oil: Petroleum Policy in Denmark, Britain and Norway 1962–92*. Oslo, Norway: Scandinavian University Press.
- Andersen, S. S., Goldthau, A., & Sitter, N. (2017). *Energy Union: Europe's New Liberal Mercantilism?* London: Palgrave Macmillan.
- Andersen, S. S., & Sitter, N. (2009). The European Union Gas Market: Differentiated Integration and Fuzzy Liberalization. In G. Fermann (Ed.), *Political Economy of Energy in Europe : Forces of Integration and Fragmentation* (pp. 63–84). Berlin, Germany: Berliner Wissenschafts-Verlag.
- Andersen, S. S., & Sitter, N. (2015a). The External Reach of the EU Regulatory State: Norway, Russia and the Security of Natural Gas Supplies. In I. Peters (Ed.), *The European Union's Foreign Policy in a Comparative Perspective: Beyond the "Actorness and Power" Debate* (pp. 80–97). London: Routledge.
- Andersen, S. S., & Sitter, N. (2015b). Managing Heterogeneity in the EU: Using Gas Market Liberalisation to Explore the Changing Mechanisms of Intergovernmental Governance. *Journal of European Integration*, 37(3), 319–334.
- Ask, A. O. (2017, November 8). Det er et sug etter norsk gass i Europa – ny eksportrekord. *Aftenposten*. <https://www.aftenposten.no/okonomi/i/KE43o/Det-er-et-sug-etter-norsk-gass-i-Europa--ny-eksportrekord>. Retrieved November 19, 2017.
- Austvik, O. G. (2001). Gassdirektiv, GFU og norske interesser. *Internasjonal politikk*, 3, 367–394.
- Belyi, A. (2012). Russia's Position on the Energy Charter. *Meeting Summary: Russia and Eurasia Programme*. <http://www.chathamhouse.org/sites/default/files/public/Research/Russia%20and%20Eurasia/270412summary.pdf>. Retrieved December 20, 2017.

- Boussena, S., & Locatelli, C. (2013). Energy Institutions and Organisational Change in the EU and Russia: Revisiting Gas Relations. *Energy Policy*, 55, 180–189.
- Boussena, S., & Locatelli, C. (2017). Gazprom and the Complexity of the EU Gas Market: A Strategy to Define. *Post-Communist Economics*, 29(4), 549–564.
- BP. (2017, June). *BP Statistical Review of World Energy*. <https://www.bp.com/content/dam/bp/en/corporate/pdf/energy-economics/statistical-review-2017/bp-statistical-review-of-world-energy-2017-full-report.pdf>. Retrieved October 20, 2017.
- Cameron, F. (2009). The Politics of EU–Russia Energy Relations. *EU–Russia Energy Relations*, EURUSSIA Center.
- Conley, H., Ladislav, S., & Hudson, A. (2015). The US–EU Energy Relationship. In J. M. Godzimirski (Ed.), *EU Leadership in Energy and Environmental Governance? Global and Local Challenges and Responses* (pp. 159–180). Houndmills, England: Palgrave Macmillan.
- Correlje, A., & van der Linde, C. (2006). Energy Supply Security and Geopolitics: A European Perspective. *Energy Policy*, 34, 532–543.
- Darbouche, H. (2011). *Algeria's Shifting Gas Export Strategy: Between Politics and Market Constraints*. Oxford, UK: Oxford Institute for Energy Studies. NG 48.
- Entelis, J. (2012). Sonatrach: The Political Economy of an Algerian State Institution. In D. G. Victor, D. R. Hults, & M. C. Thurber (Eds.), *Oil and Governance: State-Owned Enterprises and the World Energy Supply* (pp. 557–598). Cambridge, UK: Cambridge University Press.
- Estrada, J., Bergesen, O. H., Moe, A., & Sydnos, A. K. (1988). *Natural Gas in Europe: Markets, Organization and Politics*. London: Pinters.
- EU Commission. (2017). EU Invests €444 Million in Key Energy Infrastructure, Press Release IP/17/280.
- Financial Times*. (2012, January 15). UK Warned Over Dependence on Qatar Gas.
- Franza, L. (2014). *Long-Term Gas Import Contracts in Europe* (CIEP Energy Papers 2014/08).
- Godzimirski, J. M. (Ed.). (2013). *Russian Energy in a Changing World*. Farnham, UK: Ashgate.
- Goldthau, A. & Sitter, N. (2015a) *A Liberal Actor in a Realist World. The European Union Regulatory State and the Global Political Economy of Energy*, Oxford, Oxford University Press.
- Goldthau, A. & Sitter, N. (2015b) Soft power with a hard edge: EU policy tools and energy security. *Review of International Political Economy*, 22, 941–965.
- Grigoriev, L., Golyashev, A., & Analiticheskii tsentr pri pravitelstve Rossiyskoy Federatsii. (2016). Razvitiye konkurentsii na gazovykh rynkakh. *Energeticheskii byulletin*. Moscow: Analiticheskii tsentr pri pravitelstve Rossiyskoy Federatsii. <http://ac.gov.ru/files/publication/a/9458.pdf>. Retrieved October 20, 2017.

- Gustafson, T. (1989) Crisis Amid Plenty. *The Politics of Soviet Energy Under Brezhnev and Gorbachev*, Princeton: Princeton University Press.
- Helm, D. (2014). The European Framework for Energy and Climate Policies. *Energy Policy*, 64, 29–35.
- IEA. (2016). *Medium-Term Gas Market Report 2016*. Paris: International Energy Agency.
- Johnson, K. (2014, October 27). Lithuania Cheers 'Independence'. *Foreign Policy*.
- Kanter, J. (2015, April 22). In Accusing Russian Energy Giant Gazprom, E.U. Begins a Test of Wills. *New York Times*.
- Kardaś, S. (2016). The Twilight of the Oil Eldorado: How the Activity of Russian Oil Companies on the EU Market Has Evolved. *OSW Studies*. Warsaw: OSW. https://www.osw.waw.pl/sites/default/files/prace_55_ang_eldorado_net.pdf
- Kardaś, S. (2017). At Crossroads. Current Problems of Russia's Gas Sector. *OSW Studies*. Warsaw: OSW. https://www.osw.waw.pl/sites/default/files/prace_63_ang_at-crossroads_net.pdf
- Larsson, R. R. (2006). *Russia's Energy Policy: Security Dimensions and Russia's Reliability as an Energy Supplier*. Stockholm: Swedish Defence Research Agency.
- Lindroos, M., Schnichels, D., & Svane, L. P. (2002). Liberalization of the European Gas Market – Commission Settles GFU Case with Norwegian Producers. *Competition Policy Newsletter*, 3, 50–52.
- Lyons, P. (1994). *Energy Policies of the European Union*. London: EC Inform.
- Molnar, G., Behrens, A., Egenhofer, C., & Genoese, F. (2015). Europe's Long Strategy in the Wider EU Gas Market. *CEPS Policy Brief*, 333. https://www.ceps.eu/system/files/PB333_Europe%20LNG%20Strategy_0.pdf. Retrieved August 12, 2016.
- Nosko, A., & Misik, M. (2017). No United Front: The Political Economy of Energy in Central and Eastern Europe. In S. S. Andersen, A. Goldthau, & N. Sitter (Eds.), *Energy Union: Europe's New Liberal Mercantilism?* (pp. 201–222). London: Palgrave.
- Nyssens, H., Cultrera, C., & Schnichels, D. (2008). The Territorial Restrictions Case in the Gas Sector: A State of Play. *Competition Policy Newsletter*, 1, 48–51.
- Orttung, R. W., & Overland, I. (2011). A Limited Toolbox: Explaining the Constraints on Russia's Foreign Energy Policy. *Journal of Eurasian Studies*, 2(1), 74–85.
- Reuters. (2017a, January 27). Algeria Top Gas Supplier to Spain 2016, Eyes More EU Exports.
- Reuters. (2017b, September 7). Algeria to Increase Gas Output for Export – Sonatrach.
- Sabel, F., & Zeitlin, J. (2011). Experimentalist Governance. In D. Levi-Faur (Ed.), *The Oxford Handbook of Governance* (pp. 169–183). Oxford, UK: Oxford University Press.

- Smith, K. (2008). *Russia and European Energy Security: Divide and Dominate*. Washington, DC: Center for Strategic and International Affairs.
- Talus, K. (2011). Long-term Natural Gas Contracts and Antitrust Law in the European Union and the United States. *Journal of World Energy Law & Business*, 4(3), 260–315.
- Talus, K. (2012). Winds of Change: Long-term Gas Contracts and the Changing Energy Paradigms in the European Union. In C. Kuzemko, M. Keating, A. Goldthau, & A. Belyi (Eds.), *Dynamics of Energy Governance in Europe and Russia* (pp. 227–242). Basingstoke, UK: Palgrave Macmillan.
- Verda, M. (2015). The Foreign Dimension of EU Energy Policy: The Case of the Southern Gas Corridor. In J. M. Godzimirski (Ed.), *EU Leadership in Energy and Environmental Governance? Global and Local Challenges and Responses* (pp. 69–86). Basingstoke, UK: Palgrave Macmillan.
- Youngs, R. (2009). *Energy Security: Europe's New Foreign Policy Challenge*. London: Routledge.



CHAPTER 4

EU Climate and Energy Policy: New Challenges for Old Energy Suppliers

Indra Overland

THE FUTURE EU ENERGY DEMAND MIX

Much recent research on the EU's international energy policy analyses how the EU seeks to enforce its energy rules outside the union, for example, in the antitrust case against Gazprom or in the regulatory battles over the Nord Stream pipelines (see Andersen, Goldthau, & Sitter, 2017; also Chaps. 2 and 3 in this volume). Another strand of the literature focuses on the geopolitics of energy, energy security and energy-related tensions with Russia (see Cwiek-Karpowicz, Godzimirski, & Nowak, 2015; Romanova,

This chapter is a product of the EUNOR project, financed by the Research Council of Norway's programme 'Europe in Transition (EUROPA)', and the RusCasp project, financed by the Research Council of Norway's programme PETROSAM. I am grateful to Ole Gunnar Austvik, Elin Lerum Boasson, Jakub M. Godzimirski, Andreas Goldthau, Kristin Haugevik, Bård Lahn, Nick Sitter, Svend Søyland and Karen Sund for their suggestions. Needless to say, I remain responsible for the contents of the chapter—they may not even agree with some of my points. All translations from Norwegian are my own.

I. Overland (✉)

NUPI – Norwegian Institute of International Affairs, Oslo, Norway

e-mail: ino@nupi.no

© The Author(s) 2019

J. M. Godzimirski (ed.), *New Political Economy of Energy in Europe*, International Political Economy Series, https://doi.org/10.1007/978-3-319-93360-3_4

2016; Sharples, 2016; Orttung & Overland, 2011). While such topics have received considerable attention, EU climate policy is likely to have far greater consequences for international energy relations than geopolitics or regulatory expansion.

The EU has pledged to reduce its greenhouse gas emissions by 40 per cent from 1990 levels by 2030 (EC, 2015). The work towards this objective has two main pillars: energy efficiency and renewable energy. By 2030, half of the EU's electricity supply is to be generated from renewables, and by 2050 it is to be fully decarbonized (EC, 2016).¹ These policy areas are currently (in 2018) undergoing revision and further details are being hammered out. Future EU energy policy is likely to be even more ambitious.

The EU imports more oil and gas than any country in the world (EIA, 2016). If fulfilled, the EU's combined energy efficiency and renewable energy objectives will render fossil fuels a shrinking slice of a shrinking energy demand pie.

In this chapter, I first provide a brief overview of the implications of changes in EU energy demand for the major external energy suppliers. I then examine the Norwegian case in some detail, assessing whether and how Norway has made efforts to prepare for the energy transition. For reasons discussed below, Norway is particularly well positioned for adapting to such a transition and therefore represents a best case for the EU's external energy suppliers. Whatever Norway is unable to do, the others will be even less likely to achieve.

PROSPECTS FOR THE EXTERNAL ENERGY SUPPLIERS

The countries that export most fossil fuels to the EU are Algeria, Colombia, Kazakhstan, Nigeria, Norway, Russia, Saudi Arabia and the USA (see Fig. 4.1). For these countries, any changes in the EU energy demand mix should be of concern.

The EU's external suppliers are rule-takers, not rule-makers: no matter how the EU energy mix evolves, they will have to adapt.² Despite being closely integrated with the EU, even Norway has little say over EU energy policy formulation (see Chap. 6 in this volume). This is even more true of the other external energy suppliers, including great-power Russia,

¹ For a broader overview of the evolution and many mechanisms of EU climate and energy policy, see Boasson and Wettstad (2013).

² For more on their adaptation, see Chap. 3 of this volume; on how they may try to influence EU energy policy choices, see also Chap. 5.

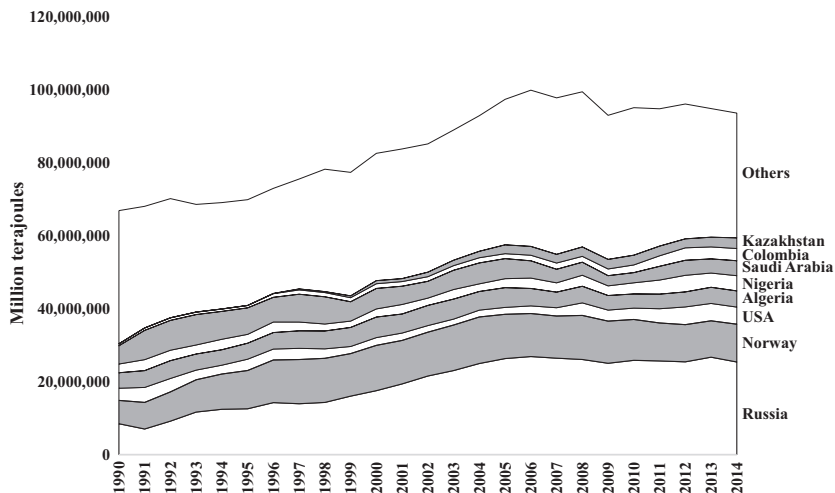


Fig. 4.1 EU28 coal, oil and gas imports by origin, recalculated as terajoules, by country of origin (data source: Eurostat, [2017a](#))

which is being forced by EU regulators to change its ways when it comes to free-market competition (Overland, [2017](#), p. 125).

How decarbonization will affect demand for different types of fossil fuel is hard to predict. Logically, it is the EU's coal imports that should be cut the most and the fastest: coal produces most GHG emissions and is a major cause of air pollution and acid rain at the local and regional levels, and imported coal competes with coal produced within the EU. For external suppliers of coal to the EU such as Australia, Colombia, South Africa and the USA, the outlook for this part of their exports is bleak, although they may attempt to redirect them to other markets, as coal is a flexible commodity. However, if other markets follow the EU in trying to phase out coal, this flexibility will not help.

For the EU's oil suppliers, the situation is less clear but also bleak. The potential for increased use of bicycles, electric bicycles, public transport and electric passenger vehicles is greater in the EU than in most other parts of the world, because Europe's cities were largely designed before the motorization of transport, featuring narrow streets and compact urban centres. However, to an even greater extent than coal, oil is a fungible, global commodity, and developments in the EU are therefore not necessarily decisive for oil producers. On the other hand, if disruptive technologies

are developed for energy storage in the transport sector, oil consumption may be drastically reduced throughout the world.

The situation for natural gas is even more ambivalent. Around 2011, there was considerable enthusiasm for natural gas as a bridge fuel to a low-carbon energy system, but some of this excitement has since abated (Zhang, Myhrvold, Hausfather, & Caldeira, 2016a). The future of natural gas is now less bright or at least less clear than it was then. However, gas has a special position in the EU context because most gas exported to the EU is shipped via a network of pipelines that lock the EU to its suppliers. On the other hand, LNG is developing rapidly and may alleviate some of the problems of current and future gas suppliers looking for new markets for their gas, depending on how the policy framework for CO₂ emissions from LNG liquefaction evolves (Ulvestad & Overland, 2012).

According to Sweijs et al. (2014, p. 67), Algeria and Russia are particularly exposed to the European energy transition, because large shares of their export earnings come from oil and gas, and most of it is sold to EU customers (Table 4.1). China and Russia have agreed to expand their natural gas trade to 38 billion cubic metres (bcm) per year upon completion of the Power of Siberia pipeline (scheduled for December 2019), but this pales compared with the approximately 160 bcm that Russia exports to Europe (Overland, 2018a). Along with Libya and Norway, Algeria and Russia are also welded to Europe by natural gas pipelines—though both also have the capacity to export LNG.

Table 4.1 Major exporters to the EU

	<i>Oil and gas income as % of state budget</i>	<i>% of oil exports going to the EU</i>	<i>% of gas exports going to the EU</i>	<i>% of coal exports going to EU</i>
Algeria	60	72	90	
Colombia	20	9		46
Libya	96	71	100	
Nigeria	70	40	58	47
Norway	14	97	97	
Qatar	60		30	
Russia	52	79	81	34
S. Arabia	90	15		
USA	0.2	6	7	42.6

Sources: Sweijs et al. (2014, p. 67), Trademap (2017)

As noted, oil suppliers may be somewhat less vulnerable to changes in EU demand, so Saudi Arabia may be better positioned in this regard. However, the Saudis will be equally vulnerable if new technologies are developed and/or other parts of the world fulfil the Paris Agreement (O'Sullivan et al., 2017; Overland, 2015).

For Colombia, Kazakhstan, Nigeria, Saudi Arabia and the USA, distance rules out transitioning from the export of fossil fuels to the export of renewable energy to the EU. Although Russia shares direct borders with the EU, Russia's options are also limited, as most of its landmass is located far away from the main demographic and economic centres of the EU and because there are internal Russian policy constraints on the development of renewable energy except for large-scale hydropower (Overland & Kjaernet, 2009).

Algeria, Morocco and Tunisia have good preconditions for building large-scale solar arrays for export of electricity to the EU, but none of these countries is closely aligned with Europe. Moreover, in Algeria and Tunisia, there could be stability concerns, as illustrated by the 2013 attack on the Tigantourine gas facility in Algeria. Finally, the Desertec project for creating renewable energy 'super grids' by harnessing power from renewable energy sites in North Africa for consumption in Europe has already been shelved. That is not a positive sign—though such a project might resurface in some form due to the excellent climatic and geographical conditions.

The Norwegian case is of particular interest because some 97 per cent of Norwegian oil and gas exports go to the EU—moreover, Norway is by far the best positioned of the major external suppliers to adapt to the ongoing changes in EU energy demand. Therefore the remainder of this chapter focuses on how Norway has been handling changes in the EU energy demand mix.

ANOTHER STROKE OF LUCK FOR THE EU'S SMALL, LARGE ENERGY SUPPLIER?

Norway stands out in several ways. First, although also Norway is welded to Europe by pipelines, unlike the other external energy suppliers, Norway is a West European country with an ambitious climate discourse and policy increasingly integrated with those of the EU (Boasson & Lahn, 2017, p. 195). That should make it better attuned to policy developments in the EU.

Second, while only Russia supplies more fossil fuels to the EU, Norway is a much smaller country, without a history as a great power, Cold War protagonist or involvement in energy conflicts with transit countries. This reduces the amount of perceived risk associated with Norwegian energy supplies.

Third, after the turn of the millennium, the share of natural gas in Norway's hydrocarbon production mix has grown. This is a positive development, given the lower carbon footprint of natural gas; moreover, Norway already has in place both pipelines and a liquefied natural gas (LNG) facility for natural gas exports.

Fourth, Norway's greatest comparative advantage over its energy supplier peers lies not in the petroleum sector but in renewable energy. Norway is Europe's biggest producer of hydropower, due to its maritime climate with significant precipitation and its geology of glacial, bare bed-rock valleys, which make dam construction easier and safer than in younger mountainous regions of the world.³

Fifth, the large reservoir capacity of the Norwegian hydropower dams, amounting to around half of total European capacity, means that Norway can fulfil a balancing function, turning up electricity production when neighbouring countries produce less and reducing it when they produce more (Lindström & Ruud, 2017; Solvang et al., 2014). Thus, Norway can in theory help balance against the intermittency of both wind and solar power in the EU and the production of wind power in Norway for export to the EU. This is sometimes referred to as functioning as a 'green battery' (Gullberg, 2013, p. 615).

Sixth, Norway has some of the greatest wind resources in Europe. Norway's 100,000 km coastline is one of the world's longest, and it includes 320,000 islands and reefs as well as many capes and peninsulas (Staurset, 2011). This special geography creates a remarkable potential for wind power, as it makes it possible to capture powerful maritime winds with wind turbines bolted to the bedrock onshore—which is simpler and cheaper than constructing offshore wind turbines.

Seventh, Norway's location is an advantage, with proximity to the wealthiest EU member states, which happen to have the greatest need for heating *and* some of the most ambitious climate policies: Denmark, Finland, Germany, Sweden and the UK. The Nord Pool market for trading

³ Russia produces more hydropower than Norway, but several of its major dams are outside Europe, in Siberia and the Far East.

electricity across Northern Europe also makes it relatively easy to exchange electricity between Norway and its neighbours (de Menezes & Houllier, 2015; Mirza & Bergland, 2015).

Eighth, the expertise of Norway's petroleum service industry may be used for developing renewable energy. This pertains especially to floating offshore wind power, where Norway's national oil company, Equinor (formerly Statoil), aims for a leading position (Sætre, 2017a).

With its many advantages, Norway represents a best-case scenario among the EU's external energy suppliers. Or, put differently: if Norway cannot anticipate and position itself for a decarbonized energy demand scenario, the other fossil fuel suppliers are likely to be even less prepared.

HOW HAS NORWAY POSITIONED ITSELF FOR THE EU'S ENERGY TRANSITION?

Norway's track record on climate and energy policy includes some significant achievements. For example, a CO₂ tax on petrol and other oil products was introduced as early as 1991 and made up around half of the retail price of petrol in 2018 (Njarga, 2016; Bruvoll & Larsen, 2004). This is particularly impressive when compared to many other countries with large oil reserves, like Iran, Nigeria, Saudi Arabia and Venezuela, where merely removing subsidies for petrol has proven difficult, let alone introducing carbon taxes (Dansie, Lanteigne, & Overland, 2010; Overland, 2010).

The CO₂ tax is not Norway's only contribution to climate mitigation. Norway has ambitioned to be a front runner in international climate policy since the 1980s (Lahn & Wilson Rowe, 2015); it has pioneered the concept of international carbon trading (Sæverud & Wettstad, 2005; Boasson & Lahn, 2017), helped to initiate the REDD programme to preserve tropical forests as carbon sinks (Edwards, Fisher, & Boyd, 2010; Hermansen, 2015; Matthews et al., 2014), pioneered the replacement of bunker oil with LNG in shipping through the creation of the NOx Fund (Pinchasik & Hovi, 2017), and introduced serious support for electric vehicles earlier than most countries (Bjerkan, Nørbech, & Nordtømme, 2016; Mersky, Sprei, Samaras, & Qian, 2016; Ryghaug & Toftaker, 2016; Zhang, Qian, Sprei, & Li, 2016b). Thus Norway's climate policy stands out compared to those of other oil-producing countries, including wealthy and democratic oil-producing peers Australia and Canada (Friedrichs & Inderwildi, 2013; Boasson, 2013).

However, none of these initiatives relate specifically to Norway's energy relations with the EU—the destination of almost all Norwegian energy exports. In the rest of this section, I therefore assess Norway's contribution to the EU's energy transition in several areas of policy and business, focusing on the strategic choices and actions of the Norwegian government and the country's largest company, Equinor.

Natural Gas Vehicles

Natural gas vehicles have lower greenhouse gas emissions and produce less local air pollution than petrol and diesel vehicles (Hesterberg, Bunn, & Lapin, 2009). Regular petrol cars can be modified to run on natural gas, and the cost is easily recouped due to the lower cost of natural gas. Almost all countries in Europe have extensive gas grids, ensuring that natural gas is easily available. If there is one area where natural gas might play a major role as a transition fuel between the oil era and a decarbonized energy system, it is in European road transport.

Paradoxically, however, most European countries except for major gas *importers* Italy and Poland have been slow to adopt natural gas vehicles compared to countries less well positioned for this, for example, Armenia, China, India and Pakistan. One important reason may be that Europe's main external suppliers of natural gas—Norway and Russia—were long passive about promoting its use for road transport, failing to seize an opportunity that both countries could have benefitted from.⁴ As sales of electric battery (and in the future possibly fuel cell) cars surge, the window of opportunity for natural gas vehicles may already be closing.

Sale of Filling Stations

A decisive moment in the failure to promote natural gas for the European transport sector came in 2012, when Equinor sold off its chain of filling stations. The chain included around 2290 stations serving over one million customers daily across Northern and Eastern Europe and is now part of the brand Circle K (Nordea, 2016, p. 2).

⁴ Gazprom launched the Blue Corridor rally for NGVs in 2008 and collaborates with major European carmakers in promoting NGVs (Bieliszczuk, 2017: 2). Although more impressive than the Norwegian non-effort, these initiatives have had limited impact.

The filling stations could have been used as a platform for promoting natural gas vehicles and later for moving into emerging business areas such as hydrogen tanking, charging electric vehicles or rapid exchanging (rather than recharging) of batteries. When the Equinor filling stations were sold, the rationale was that petrol retail was such a competitive sector and the profits so marginal that it had become difficult to make money on anything other than sales of hotdogs and coffee. During this period, Equinor also seemed to be operating on the unstated assumption that climate policy would not have significant impact on the demand for oil and gas. The company argued that the world still needed more energy to eradicate energy poverty and claimed that Norwegian oil and gas were cleaner than those of other countries and therefore represented a lesser evil (Bjørnstad & Barstad, 2017). During the same period, Equinor was investing heavily in Canadian oil sands, having ramped up this business area around 2010. Had Equinor taken climate policy more seriously sooner, it might instead have kept its filling stations and used them to navigate the energy transition.

Mixing Hydrogen into Natural Gas

The combination of natural gas production and renewable energy resources creates interesting opportunities for Norway. Hydrogen could be produced from renewable energy sources and mixed with natural gas before export, raising the calorific value of the natural gas and bundling it with renewable energy (Holst et al., 2016, p. 14). Adding hydrogen to natural gas might extend the lifespan and commercial value of Norway's 8800-km network of export gas pipelines, raising the return on the considerable sunk costs of those pipelines.

Significant technological and marketing challenges would have to be solved before such a solution could be commercially viable. If the necessary technologies were developed successfully, they could also be sold to other natural gas producers. Some work has been done on this (Lie, 2013b), but effort in this area is miniscule compared to Norwegian investments in petroleum exploration, carbon capture and storage, LNG, American shale drilling, Canadian oil sands or subsea technology (Boasson & Wettstad, 2014).

Wind Power Versus New Acreage for Petroleum Exploration

According to its promotional material, Equinor aims to be a climate-friendly company (Statoil, 2017). However, Irene Rummelhoff, Director of New Energy Solutions in Equinor, has written:

Let there be no doubt: Our [oil and gas] activity in the North Sea is Statoil's [Equinor's] backbone. Here we have a proud history—and an exciting future. We are also growing internationally in oil and gas. We will thus remain an energy company focused on oil and gas for a long time (Rummelhoff, 2016).

It is not surprising that a representative of an oil company should make such a statement, but it is striking that someone so central to the company's renewable energy investments should take pains to make such a point in an op-ed in a major newspaper. It may help explain why only 3.6 per cent of Equinor's investments between 2012 and 2016 were in renewable energy (Lewis, 2017).

In 2016, Equinor announced that it would create a fund to invest a total of NOK 1.7 billion (EUR 180 million) in renewable energy over a period of four to seven years. Then in October 2017, Equinor launched Hywind, the world's first floating wind farm, off the coast of Scotland. At the same time, Equinor's CEO Eldar Sætre published an op-ed, announcing the 'ambition to invest [a total] of around NOK 100 billion' (EUR 10.5 billion) in renewable energy over the next 13 years (Sætre, 2017a). This figure may look impressive, but was dwarfed by the company's investments in its numerous oil and gas projects around the world. For example, the Johan Castberg oilfield alone was slated for investment of around NOK 60 billion over a six-year period—and that was after a 40 per cent budget slash due to the drop in the oil price (Krogh, 2016). It is also worth noting that the NOK 100 billion plan for renewable energy was not launched before 2017 and even then remained at the level of vaguely formulated intentions.

Equinor has also made significant efforts at lobbying the Norwegian authorities to open up the seas around the Lofoten and Vesterålen archipelagos to petroleum development and to reduce the taxes on its oil and gas activities in the Barents Sea (e.g. Haugan, 2016; Lysvold, 2016). By comparison, Equinor has put little effort into lobbying for better regulatory conditions for wind power investment in Norway. This is despite the fact that petroleum activity in the Arctic is controversial and could have negative impacts on the company's reputation (Saltvedt, cited in Aadland, 2015; Overland & Krivorotov, 2015, p. 102).

Developing Wind Power to Boost Norwegian Electricity Exports

Taking into account Norway's wind resources, as well as the rapid growth of wind power in neighbouring Denmark, Germany, the Netherlands and the UK, Norwegian wind power is underdeveloped. The Danish and Norwegian cases make for particularly interesting comparison. The two countries were one state for over 400 years and have mutually intelligible languages, the same Lutheran heritage, the same size of population, the same level of economic development and similarly ambitious climate discourses. Denmark is a small, flat, windy country where it is easy to set up wind turbines; Norway has lower population density and a windy and much longer coast with many excellent locations for wind turbines. In sum, the two Scandinavian neighbours have different but comparable starting points for the development of wind energy (Granlund, 2014, p. 6). However, while Denmark has assumed a leading role in the global wind power sector with a generation capacity of 5228 MW, Norway is a laggard with only 873 MW (Weir, 2017, p. 4; GWEC, 2017, p. 11). A glance at some of the major potential players in Norwegian wind power confirms the impression that Norway lags behind other countries.

Equinor has an excellent starting point for developing Norwegian wind power: decades of offshore and onshore experience, a dominant position on the Norwegian continental shelf, a firm grasp of the Norwegian supply industry, close connections with the Norwegian state and high status in Norwegian society. Nonetheless, Equinor has chosen to invest in wind power in the UK and the USA rather than Norway.

Also the Danish wind power giant Vestas had a good starting point for expanding into Norway, considering the geographical and cultural proximity of the two countries. Vestas had a head start in Norway, erecting its first Norwegian wind turbine as early as 1989 and first wind farm in 1991. Nonetheless, Norway has not become an important part of Vestas' business.

The Swedish energy company Vattenfall owns over 1000 wind turbines producing a total of almost 6 TWh per year of electricity in 2016 in Sweden, Denmark, Germany, the Netherlands and the UK (Vattenfall, 2017). Thus, Vattenfall has been investing heavily in wind power in most countries in the region—except Norway.

General Electric bought Norwegian wind turbine manufacturer ScanWind and planned to open a research centre for offshore wind power in Oslo but gave up after one year. And in 2017 Statkraft, Norway's state-owned power

company, was in the process of withdrawing from offshore wind power, selling its shares in several wind farms (Riisnæs, 2017).

By 2017, there were plans for several new major wind farms in Norway—but still, Norway has been slow to seize the opportunities offered by its climate and geography. While resting on its century-old hydropower laurels, Norway has failed to fulfil its potential as a supplier of wind power to the EU. Reasons for the slow development of wind power in Norway include lack of a favourable regulatory framework, long waiting times for concessions and lack of incentives (Rygg, 2015). Above all, the low price of electricity in Norway has served to limit the development of wind power, a topic I return to later on in the chapter.

Electricity Interconnectors

Norway alone has around half of Europe's hydropower storage capacity, a good starting point for functioning as the continent's green battery (Killingtonveit, 2016, p. 4). A major precondition for fulfilling this potential is the existence of sufficient infrastructure for the exchange of electricity between Norway and the EU countries. Norway already has electricity interconnectors with Denmark, the Netherlands and Sweden. Along with the Nord Pool electricity exchange and the Norwegian–Swedish green certificate system for renewable energy, the existing interconnectors ensure that the Norwegian electricity system is partially integrated with those of its neighbours and already functions as a power bank for Danish wind power. However, the ongoing expansion of renewable energy production in many EU countries opens up the possibility for Norway to function as a green battery on a significantly greater scale.

Germany's experience in December 2016 illustrates the need for this. A protracted period of dense fog and lack of wind, combined with lack of interconnectors and coordination between electricity market actors in different parts of the country, led to problems with the German electricity supply, exposing some challenges involved in the rapid expansion of solar and wind power (Flassbeck, 2016). Norwegian energy storage can help to safeguard against such events—provided there is sufficient high-voltage transfer capacity between EU countries and Norway.

Using Norway as a green battery is a win-win arrangement for Norway and the EU. It can increase Norway's export earnings, mitigate the energy security concerns of EU countries related to the intermittency of solar and

wind power and make it possible to store rather than waste their surplus of clean energy production. Thus, it can increase the viability of the EU's own renewable energy production and facilitate increased imports of renewable energy while also bringing significant financial benefits to Norway. As both sides have strong incentives, this may be some of the lowest-hanging fruits in international climate and energy cooperation. EU actors have called for the development of energy storage capacity, indicating that Norway could provide part of the solution (EC, 2011, p. 34; German Advisory Council on the Environment, 2011; Moser, Maaz, Baumann, & Schäfer, 2015). As Gullberg (2013, p. 615) notes, using Norway as a green battery for Europe is certainly technically feasible: the question is whether it is politically and economically feasible. One might add: for the Norwegian side.

Many of the experts who have analysed or commented on Norway's potential as a green battery have been enthusiastic (Gullberg, 2013, p. 615; Hagem, 2016). However, much of the public debate on the required expansion of electricity interconnectors has been negative, as they are expected to lead to higher electricity prices within Norway. The Norwegian Union of Industry and Energy Workers has been staunchly opposed (Gullberg, 2013, p. 619). Hogne Hongset, former Director of Communications in Equinor, warned in *Verdens Gang*, Norway's most widely circulated newspaper, that Norwegian electricity consumers are being conned and that the companies that want to build cables to other countries are more interested in raising electricity prices for their Norwegian customers than in expanding exports. He also stated that the companies 'use climate arguments that have no substance at all', without providing further explanation (Hongset, cited in Haugan & Vågenes, 2016). Other examples of the critical, often angry, discourse against the expansion of electricity interconnectors with other countries include Gjelsvik (2017), Sætre (2017b), Handegård (2016, 2017), Braanen (2017), Byrkjeflot (2017) and *Klassekampen* (2015). An editorial in the newspaper *Rogalands Avis* (2013) is particularly vitriolic:

The sum of all this is that the [Norwegian] consumers in the coming years will be burdened with colossally overpriced electricity bills, while the Norwegian electricity system will become as costly and chaotic as those of most EU countries. This boundless insolence will be the greatest scam in Norwegian history if the electricity industry has its way for another ten years and its greed is not reined in.

In addition to disregarding Norway's contribution to ensuring the success of the EU's energy transition, this discourse ignores the point that raising Norway's low electricity prices is actually a good thing in its own right, creating incentives to improve energy efficiency. Higher electricity prices for Norwegian consumers could be seen not as a negative side-effect of expanded interconnected capacity but as an objective.

Electricity Pricing

Limiting the number of interconnectors would not only restrict Norway's prospects as a green battery but also help keep Norwegian electricity prices low, thereby limiting the incentives to develop areas such as wind power, small hydro and pumped-storage hydropower. The consequences of low electricity prices are illustrated by the modernization of hydropower. The most cost-efficient way of increasing renewable energy production in Norway is to modernize the country's existing hydropower plants. Many of them were built between the 1930s and 1960s; some have since been modernized, while others could still attain greater efficiency. However, with the limited capacity for power exports and the consequent low electricity prices in Norway, there have been few incentives for modernization.

In practice, resistance to the installation of electricity interconnectors is a call for the equivalent of large-scale indirect subsidies for Norwegian electricity consumption. Producers are forced to sell electricity at lower prices in the domestic market than they could have obtained in foreign markets, thus keeping domestic prices lower in Norway than in almost any other European country (see Fig. 4.2). This is comparable to countries such as Iran, Saudi Arabia and Venezuela, which have subsidized petrol consumption by limiting exports to the world market, where the oil would have fetched a higher price (Cheon, Lackner, & Urpelainen, 2014; Mundaca, 2017). Although hydropower does not generate significant greenhouse gas emissions, the general principle of de facto indirect subsidization is similar. The categorization of such indirect price-limiting mechanisms as subsidies is also supported by the use of the price-gap method as one of the standard approaches to identifying energy subsidies (Koplow, 2009, pp. 1–2; Kojima & Koplow, 2015, p. 6; Overland, Suryadi, & Win, 2016, p. 9; Overland & Kutschera, 2011).⁵

⁵ In the price-gap method, the size of a subsidy is estimated by calculating the difference between the price that end users in a given country have to pay and the market price, often the price on world markets adjusted for transport and distribution costs.

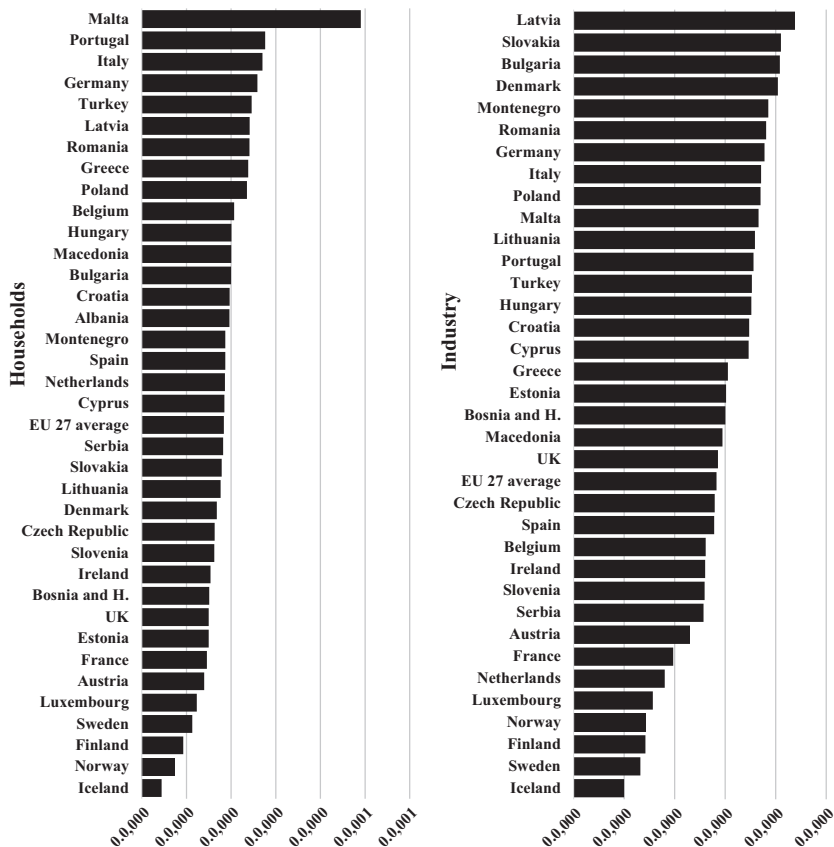


Fig. 4.2 Cost of electricity in European countries, in purchasing power standardized currency units, adjusted for taxes (data source: Eurostat, 2017b)

Is the Glass Half-Full or Half-Empty?

I set out to appraise Norway's effort to prepare for and contribute to the EU's energy transition. However, what yardstick this effort should be measured by is not clear. The difficulty can be illustrated with a public debate that took place in 2017 between Kjell Roland and Torger Lien on the one hand and Per Sanderud on the other.

According to Roland and Lien (2017, p. 28), Norway has failed to promote products and pricing structures that facilitate payment for its

capacity to function as a green battery. As a result, 1 kWh of flexible Norwegian hydropower does not earn a premium over 1 kWh of inflexible Danish wind power. According to Roland and Lien (2017, p. 28), the lack of a more proactive Norwegian approach towards Brussels and the EU countries is an ‘incomprehensible’ paradox. Sanderud, Director of the Norwegian Water Resources and Energy Directorate, disagrees with Roland and Lien, arguing that the Norwegian authorities are working hard to create the conditions for Norway to become a green battery for Europe (Sanderud, 2017).

The decisive question in the discussion between Roland, Lien and Sanderud—and for this chapter—is whether Norway has done enough and, by extension, how much is enough. This question concerns not only the green battery issue and the installation of electricity interconnectors but also all the areas discussed above, including the promotion of natural gas vehicles, mixing of hydrogen into natural gas and facilitating the development of Norwegian wind power. Although it is difficult to find objective criteria by which to resolve such discussions, there are some strong arguments in favour of concluding that Norway has not fulfilled its potential for positioning itself for, or contributing to, the EU’s energy transition.

First, as one of the countries in the world that has profited most from international oil and gas consumption, Norway has a particular responsibility for mitigating climate change (Fuglestad & Kallbekken, 2015; Rive, Torvanger, & Fuglestad, 2006). Viewed from the perspective of climate justice, Norway’s contribution to mitigating climate change should not be half-hearted.

Second, in climate mitigation, time is of the essence (den Elzen et al., 2017, p. 15; Blok et al., 2017, p. 37). Rapid action is important not only because greenhouse gas emissions need to be cut fast but also because it can provide an infrastructural basis for developing renewable energy in other countries and because it sends market and policy signals to all the actors who are trying to second-guess future developments. As Sanderud and many Norwegian ministers have argued while championing government policy, Norway has managed to get many things right in its climate and energy policies. But have the measures come early enough? In each of the areas discussed above, one can ask, ‘Could Norway have acted earlier than it did?’ In most cases, the answer is probably ‘yes’. In some cases, Norway might have acted a decade earlier.

Third, the EU has been emitting strong climate policy signals since the early 1990s (Oberthür & Pallemmaerts, 2010). The 1990 report of the Intergovernmental Panel on Climate Change (IPCC) almost immediately triggered a debate in the European Council; that same year, European leaders agreed to stabilize greenhouse gas emissions at 1990 levels by 2000 (European Council, 1990). From then on, the EU has sought to take a proactive stance in climate and energy policy, within Europe and globally, with initiatives like the ALTENER renewable energy targets (adopted in 1993) and by playing leading role in negotiations and implementation of the Kyoto Protocol (adopted in 1997). A particularly important policy signal was the approval in 2007 of the 20-20-20 targets: by 2020, the EU was to reduce emissions of greenhouse gases by 20 per cent, increase energy efficiency by 20 per cent and achieve 20 per cent of renewables in total energy consumption (Arababadi, Moslehi, El Asmar, Haavaldsen, & Parrish, 2017; Calvin et al., 2014). It is also worth remembering that the EU was originally founded in 1951 as the European Coal and Steel Community, which helped avoid a repeat of the world wars by regulating competition between the European powers in the energy and industrial sectors. EU energy policy signals should therefore carry some weight.

Fourth, as noted above, the EU countries have sent positive signals specifically about Norway's potential role as a green battery. Germany—probably the most important potential market for Norwegian renewable energy cooperation—has been especially vocal here.

Fifth, in all the issue areas discussed in this chapter, Norway has a national economic self-interest in positioning itself for the EU's energy transition. Taking a proactive stance should therefore be relatively easy for Norway—compared to the other major external energy suppliers such as Algeria, Nigeria or Russia, or compared to an EU country such as Poland, where phasing out coal is socially and economically painful.

WHY HAS NORWAY PROCRASTINATED?

A Dual Resource Curse

One possible reason for Norway's tardiness is the perennial challenge of fighting off 'Dutch disease', as easy oil income drives up prices in Norway and draws labour and investors away from nonpetroleum activities. In addition, hydropower is abundant. Consequently, Norwegian climate and

energy policy, and especially the wind industry, struggle against a dual resource curse: of oil and of hydropower. Although Norway has largely escaped other aspects of the resource curse such as corruption, authoritarianism and internal conflict (Overland, 2018b, p. 217), the easy, rich rents from these two sectors have distracted the country from other possibilities.

Path Dependency

A major hindrance to adapting to the energy transition can come from path dependency and societal inertia within the energy-exporting countries, sometimes referred to as ‘carbon lock-in’ (Unruh, 2000). Norway is anchored in the petroleum sector in several ways:

- Sunk costs related to the large number of oil platforms on the Norwegian continental shelf, 8800 km of subsea gas pipelines, an LNG plant at Hammerfest and a major oil refinery at Mongstad
- The status of Equinor as the country’s largest and most prestigious company
- An extensive offshore oil and gas supply industry, with companies based in many parts of the country
- Educational institutions geared towards the petroleum sector
- Norwegian and foreign investors with long traditions of investing in the sector
- Around 180,000 employees in the petroleum sector
- Well-organized and vocal oil workers’ unions and employers’ unions
- Government dependency on tax revenues from the petroleum sector

Renewable energy cannot match this in the short run. Even in Norway, where nearly all onshore electricity is generated from hydropower, the lobbying clout of the hydropower sector pales compared to that of the petroleum industry. Hydropower is highly efficient and employs hardly any people; once constructed, dams may last for centuries. Moreover, hydropower generation does not generate tax revenues anywhere near the scale of oil and gas, as most of the electricity is sold cheaply to Norwegian households and industry.

Part of Norway’s carbon lock-in may also rest within the government apparatus for the energy sector, as reflected in the title ‘Ministry of

Petroleum and Energy’.⁶ This choice of wording indicates an oil and gas bias in two ways. Firstly, petroleum is mentioned explicitly, whereas all other energy sources are lumped together as ‘energy’. Secondly, ‘petroleum’ comes before ‘energy’. The other government units and government-controlled companies subordinated to the ministry also indicate an emphasis on the petroleum sector, with five organizations related to oil and gas, only three working on other issues, and no organization dedicated solely to wind power. The structure of the government apparatus may reflect the past of the Norwegian energy sector rather than its future.

Another aspect of the Ministry of Petroleum and Energy is that it has often been the purview of some of the country’s most pro-oil politicians. The last three Ministers of Petroleum and Energy—Ola Borten Moe, Tord Lien and Terje Søviknes—have all been staunchly pro-oil and unlikely to spearhead an energy transition. Both Lien and his predecessors have attempted to hinder the EU’s adoption of ambitious energy efficiency targets, fearing that they would reduce demand for Norwegian gas (Barstad, 2014). This has reinforced the silos between climate and energy policy, which are a problem in many countries, including Norway. On the other hand, two of these ministers—Lien and Søviknes—have also been strongly in favour of the expansion of electricity interconnectors with other countries, unlike many other actors (see Lien, cited in Lie, 2013a).

Energy Populism

The resistance to the installation of electricity interconnectors can be seen as a form of energy populism. Drawing on central works in the academic literature on contemporary populism such as Mudde (2004, p. 543), Madrid (2008, p. 482) and Acemoglu, Egorov, & Sonin, (2011), energy populism can be defined as a political discourse that pits the supposed interests of ‘the people’ against ‘the elites’, often combined with resource nationalism, suboptimal but popular economic solutions such as subsidies, and promises of an easy life. The element of energy populism in the debate on electricity interconnectors is an obstacle to Norway fulfilling its potential role as a green battery for Europe. It is paradoxical that such a phenomenon should arise in Norway, where, for example, the early introduction of the CO₂ tax could be considered decidedly non-populist (see Boasson & Lahn (2017) for further discussion of the political context).

⁶The Ministry of Petroleum and Energy was created as a separate entity in 1978, subsumed under the Ministry of Industry in 1992 and then reappeared as a separate ministry in 1997.

Blind Spots

At least two blind spots in the Norwegian conceptualization of climate policy may also play a role. Many Norwegian actors have seen climate mitigation as a moral obligation, but they have been divided as to whether this responsibility entails a necessity to cut emissions domestically or to spend funds as cost-effectively as possible by investing them in emission cuts in lower-cost countries (Anker, 2016; Hovden & Lindseth, 2004). The latter view has predominated in government policy, but both have featured in the public debate. Between these two main stances in the Norwegian debate, two alternative perspectives have often been lost. Firstly, climate mitigation need not be solely a moral obligation, it can also be a source of industrial opportunity and income. Secondly, although it is in many cases cheaper to spend funds on emission cuts abroad, through domestic measures Norway may be able to create precedents that influence other countries, thus achieving a greater effect.

Norway's policy on electric vehicles can serve as an illustration. One reason why electrification of transport emerged as a priority was that Norway already had a very high share of hydropower in its production of heat and electricity (onshore). Thus, electric vehicles were seen as relatively low-hanging decarbonization fruit in the specific context of the Norwegian energy mix. The public debate in Norway has focused on domestic aspects of the electrification of transport and not the importance of setting an international precedent by demonstrating the viability of such electrification or contributing to an embryonic world market for electric vehicles that could kick-start competition among car manufacturers for future growth in demand. The public debate has also largely skirted the issue of Norwegian industrial interests. When support measures for electric vehicles were introduced, Norway had its own electric vehicle manufacturing industry, which produced the small car 'Think'. Yet there was little attempt to link the measures to an industrial policy for the fledgling Norwegian car industry. And political and public interest did not take off until much later, by which time the Norwegian electric vehicle industry had gone out of business.

CONCLUSIONS

All the EU's main external energy suppliers—Algeria, Colombia, Kazakhstan, Nigeria, Norway, Russia, Saudi Arabia and the USA—will be affected by changes in the EU energy demand mix. For remote coal

exporters to the EU such as Australia, Colombia, South Africa and the USA, the prospects for continuing this trade relationship are not good, though they may attempt to redirect some of their exports to other markets. For Nigeria, Saudi Arabia and the USA, distance makes the export of renewable energy to the EU unrealistic. Despite its closer location, Russia's options in this area are also limited. Algeria has good conditions for large-scale export of solar power to the EU, but political risks are a concern.

Among the EU's external suppliers, Norway is best positioned to adapt to the changes and therefore represents a best case among the EU's external energy suppliers. Whatever Norway is unable to do, the others are even less likely to manage. Yet, despite several major climate and energy policy successes, Norway has been slow to realize its potential contribution to the energy transition in the EU. Norway's inability to seize the day appears to be caused in part by carbon lock-in, in terms of physical infrastructure and in terms of identity and institutions. At the same time, Norway is failing to use the opportunity to achieve the lock-in of renewable energy, which would not only cement the position of renewable energy in Norway but also ensure that the EU's future energy system remains bolted to Norway.

It is interesting to draw a parallel between the evolution of renewable energy and the petroleum sector in Norway. Initially, there was considerable scepticism about the prospects for developing the North Sea as a petroleum province (Overland, 2018b). In a letter to the Foreign Ministry in 1958, the Norwegian Geological Survey stated flatly: 'One can disregard the possibility that there is coal, oil or sulphur on the continental shelf along the Norwegian coast' (Geological Survey, 1958; see also Naustdalslid, 1975, p. 15). Nonetheless Phillips Petroleum was granted permission to conduct geological exploration off the Norwegian coast in 1962. In 1965, a licencing round was carried out and, in 1969, one of the world's largest oilfields, Ekofisk, was discovered. Along with later discoveries, this led to a rising wave of petroleum revenue, precipitating a fundamental shift in the country's economic and social development trajectory during the coming decades.

The birth of the Norwegian petroleum industry was driven by rising international demand for oil, growing energy security concerns related to dependency on unstable Middle Eastern oil exporters and advances in off-shore petroleum technology and seismology. Now a new round of changes in international energy demand, the international politics and the emergence of new energy technologies may give rise to a new round of changes

in Norwegian energy production and exports. The current period might prove to be the renewable energy equivalent of the dawn of the North Sea petroleum era of the late 1960s.

REFERENCES

- Aadland, C. (2015). *Statoil risikerer ryktet sitt på Lofoten*. <http://www.bt.no/nyheter/lokalt/--Statoil-risikerer-ryktet-sitt-pa-Lofoten-288837b.html>. Accessed 11 Jan 2017.
- Acemoglu, D., Egorov, G., & Sonin, K. (2011). *A Political Theory of Populism* (NBER Working Papers 17306). Washington, DC: National Bureau of Economic Research.
- Andersen, S., Goldthau, A., & Sitter, N. (Eds.). (2017). *Energy Union: Europe's New Liberal Mercantilism?* Basingstoke, UK: Palgrave Macmillan.
- Anker, P. (2016). A Pioneer Country? A History of Norwegian Climate Politics. *Climatic Change, March*, 1–13.
- Arababadi, R., Moslehi, S., El Asmar, M., Haavaldsen, T., & Parrish, K. (2017). Energy Policy Assessment at Strategic, Tactical, and Operational Levels: Case Studies of EU 20-20-20 and U.S. Executive Order 13514. *Energy Policy*, 109, 530–538. <https://doi.org/10.1016/j.enpol.2017.07.042>.
- Barstad, S. (2014). *Derfor prøvde Regjeringen å stoppe EUs klimamål*. https://www.aftenposten.no/okonomi/i/G1Jzx/Derfor-provde-Regjeringen-a-stoppe-EUs-klimamal?utm_source=Energi+og+Klima+og+Klimastiftelsens+e-postliste&utm_campaign=5dcdf220f9-RSS_EMAIL_CAMPAIGN_FREDA&utm_medium=email&utm_term=0_95967e5ed6-5dcdf220f9-527087037. Accessed 3 Dec 2017.
- Bieliszczuk, B. (2017). Natural Gas for the Transport Sector: Gazprom's New Market. *PISM Bulletin*. http://www.pism.pl/files/?id_plik=23679. Accessed 10 Dec 2017.
- Bjerkan, K. Y., Nørbech, T. E., & Nordtømme, M. E. (2016). Incentives for Promoting Battery Electric Vehicle (BEV) Adoption in Norway. *Transportation Research Part D: Transport and Environment*, 43, 169–180. <https://doi.org/10.1016/j.trd.2015.12.002>.
- Bjørnstad, S., & Barstad, S. (2017). *Statoil vil utvinne mer olje for å nå klimamålet*. <https://www.aftenposten.no/okonomi/i/RvwJW/Statoil-vil-utvinne-mer-olje-for-a-na-klimamalet>. Accessed 6 Nov 2017.
- Blok, K., Afanador, A., van Vuuren, D., Berg, T., Breyer, C., et al. (2017). Bridging the Gap – Sectoral Greenhouse Gas Emission Reduction Potentials in 2030. In UNEP (Ed.), *The Emissions Gap Report 2017: A UN Environment Synthesis Report* (pp. 27–37). Nairobi, Kenya: United Nations Environment Programme (UNEP).

- Boasson, E. L. (2013). *National Climate Policy Ambitiousness: A Comparative Study of Denmark, France, Germany, Norway, Sweden and the UK* (CICERO Report 2013:02). https://brage.bibsys.no/xmlui/bitstream/handle/11250/191980/CICERO_Report_2013-02.pdf?sequence=1&isAllowed=y. Accessed 7 Nov 2017.
- Boasson, E. L., & Lahn, B. (2017). Norway: A Dissonant Cognitive Leader? In R. Wurzel, J. Connelly, & D. Liefferink (Eds.), *The European Union in International Climate Change Politics: Still Taking a Lead?* (pp. 189–203). London: Routledge.
- Boasson, E. L., & Wettestad, J. (2013). *EU Climate Policy: Industry, Policy Interaction and External Environment*. Abingdon, UK: Routledge.
- Boasson, E. L., & Wettestad, J. (2014). Policy Invention and Entrepreneurship: Bankrolling the Burying of Carbon in the EU. *Global Environmental Change*, 29, 404–412.
- Braanen, B. (2017). *Norsk kraft*. <http://www.klassekampen.no/article/20171020/ARTICLE/171029996>. Accessed 30 Oct 2017.
- Bruvoll, A., & Larsen, B. M. (2004). Greenhouse Gas Emissions in Norway: Do Carbon Taxes Work? *Energy Policy*, 32(4), 493–505. [https://doi.org/10.1016/s0301-4215\(03\)00151-4](https://doi.org/10.1016/s0301-4215(03)00151-4).
- Byrkjeflot, A. (2017). *Professoren vil skape arbeidsplasser ved å legge ned trøndersk og norsk industri*. <http://www.adressa.no/meninger/ordetfritt/2017/10/10/Professoren-vil-skape-arbeidsplasser-ved-%C3%A5-legge-ned-tr%C3%B8ndersk-og-norsk-industri-15431826.ece>. Accessed 30 Oct 2017.
- Calvin, K., Edmonds, J., Bakken, B., Wise, M., Kim, S., et al. (2014). EU 20-20-20 Energy Policy as a Model for Global Climate Mitigation. *Climate Policy*, 14(5), 581–598. <https://doi.org/10.1080/14693062.2013.879794>.
- Cheon, A., Lackner, M., & Urpelainen, J. (2014). Instruments of Political Control. *Comparative Political Studies*, 48(3), 370–402. <https://doi.org/10.1177/0010414014543440>.
- Cwiek-Karpowicz, J., Godzimirski, J., & Nowak, Z. (2015). The Power of the Pipeline: Russia's Energy Policy and the EU. *Osteuropa*, 65(3), 151–161.
- Dansie, G., Lanteigne, M., & Overland, I. (2010). Reducing Energy Subsidies in China, India and Russia: Dilemmas for Decision Makers. *Sustainability*, 2(2), 475–493. <https://www.researchgate.net/publication/41667826-Reducing-Energy-Subsidies-in-China-India-and-Russia-Dilemmas-for-Decision-Makers>. Accessed 11 Nov 2017.
- den Elzen, M., Höhne, N., Jiang, K., Cantzler, J., Drost, P., et al. (2017). The Emissions Gap and Its Implications. In UNEP (Ed.), *The Emissions Gap Report 2017: A UN Environment Synthesis Report* (pp. 11–26). Nairobi, Kenya: United Nations Environment Programme (UNEP).

- de Menezes, L. M., & Houllier, M. A. (2015). Germany's Nuclear Power Plant Closures and The Integration of Electricity Markets in Europe. *Energy Policy*, 85, 357–368.
- EC. (2011). *Energy Roadmap 2050*. https://ec.europa.eu/energy/sites/ener/files/documents/sec_2011_1565_part2.pdf. Accessed 9 Oct 2017.
- EC. (2015). *Intended Nationally Determined Contribution of the EU and its Member States*. <http://www4.unfccc.int/submissions/INDC/Published%20Documents/Latvia/1/LV-03-06-EU%20INDC.pdf>. Accessed 11 Jan 2017.
- EC. (2016). *Clean Energy for All Europeans – Unlocking Europe's Growth Potential*. Press Release. http://europa.eu/rapid/press-release_IP-16-4009_en.htm. Accessed 11 Jan 2017.
- Edwards, D. P., Fisher, B., & Boyd, E. (2010). Protecting Degraded Rainforests: Enhancement of Forest Carbon Stocks Under REDD+. *Conservation Letters*, 3(5), 313–316.
- EIA. (2016). *Total Petroleum and Other Liquids Production 2015*. <http://www.eia.gov/beta/international/index.cfm?topL=imp>. Accessed 10 Jan 2017.
- European Council. (1990). *Presidency Conclusions, Annex II: The Environmental Imperative*. Dublin: Council of the European Union. SN 60/1/90, 25–26 June.
- Eurostat. (2017a). *Energy Statistics: Quantities*. <http://ec.europa.eu/eurostat/web/energy/data/database>. Accessed 15 Oct 2017.
- Eurostat. (2017b). *Electricity Price Statistics*. http://ec.europa.eu/eurostat/statistics-explained/index.php/Electricity_price_statistics. Accessed 18 Oct 2017.
- Flassbeck, H. (2016). The End of the Energiewende? *Energy Post*. <http://energy-post.eu/end-energiewende/>. Accessed 17 Oct 2017.
- Friedrichs, J., & Inderwildi, O. R. (2013). The Carbon Curse: Are Fuel Rich Countries Doomed to High CO₂ Intensities? *Energy Policy*, 62, 1356–1365.
- Fuglestad, J. S., & Kallbekken, S. (2015). Climate Responsibility: Fair Shares? *Nature Climate Change*. <https://doi.org/10.1038/nclimate2791>.
- Geological Survey. (1958, February 24). *FN-konferanse i Geneve 24. februar 1958 om havets folkerett*. Letter to the Ministry of Foreign Affairs of Norway. <http://www.geo365.no/oljehistorie/et-mye-omtalt-brev/>. Accessed 10 Apr 2016.
- German Advisory Council on the Environment. (2011). *Pathways Towards a 100% Renewable Electricity System*. https://www.umweltrat.de/SharedDocs/Downloads/EN/02_Special_Reports/2011_10_Special_Report_Pathways_renewables.html?__blob=publicationFileS. Accessed 6 Oct 2017.
- Gjelsvik, E. (2017). –Norsk energipolitikk henger ikke på greip. <https://enerwe.no/kraft/norsk-energipolitikk-henger-ikke-pa-greip/>. Accessed 30 Oct 2017.
- Granlund, L.L. (2014). Uten Enova – ingen vindkraft i Europas beste 'vindland'. In N. K. Nakstad (Ed.), *Etablering av vindkraft i Norge* (pp. 6–7). Enova Report 2014:5.

- Gullberg, A. T. (2013). The Political Feasibility of Norway and the 'Green Battery' of Europe. *Energy Policy*, 57, 615–623.
- GWEC. (2017). *Global Wind Statistics 2017*. http://www.gwec.net/wp-content/uploads/vip/GWEC_PRstats2016_EN_WEB.pdf. Accessed 7 Nov 2017.
- Hagem, B. (2016, November 16). *Grønn Handel*. Presentation at the Seminar 'Norge som Europas grønne batteri: Visjoner og realiteter'. Research Council of Norway.
- Handegård, O. (2016). *Høringsuttalelse om endringer i energiloven § 4–2 – Flere eksportkabler til EU?*. <https://www.regjeringen.no/contentassets/e431528b7564474e9af680cbb67a07e0/odd-handegard.pdf>. Accessed 30 Oct 2017.
- Handegård, O. (2017). *Det brune skiftet – om å misforstå norsk energipolitikk*. <https://steigan.no/2017/10/22/det-brune-skiftet-om-a-misforsta-norsk-energiolitikk/>. Accessed 30 Oct 2017.
- Haugan, B. (2016). *Statoil-sjefen: Lofoten-utbygging er bra for klimaet*. <http://www.vg.no/nyheter/innenriks/statoil/statoil-sjefen-lofoten-utbygging-er-bra-for-klimaet/a/23778672/>. Accessed 11 Jan 2017.
- Haugan, B., & Vågenes, H. (2016, September 12). Tidligere Statoil-topp tror strømprisene doubles. *Verdens Gang*. <http://www.vg.no/nyheter/innenriks/stroemprisene/tidligere-statoil-topp-tror-stroemprisene-doubles/a/23786136/>. Accessed 11 Jan 2017.
- Hermansen, E. A. (2015). Policy Window Entrepreneurship: The Backstage of the World's Largest REDD+ Initiative. *Environmental Politics*, 24(6), 932–950. <https://doi.org/10.1080/09644016.2015.1063887>.
- Hesterberg, T., Bunn, W., & Lapin, C. (2009). An Evaluation of Criteria for Selecting Vehicles Fueled with Diesel or Compressed Natural Gas. *Sustainability: Science, Practice and Policy*, 5(1), 20–30. <https://doi.org/10.1080/15487733.2009.11908025>.
- Holst, S. M., Thomassen, M., Nekså, P., Tomasgard, A., Tangen, G., et al. (2016). *Hydrogen: Verdikjeder og potensial*. http://blog.sintefenergy.com/wp-content/uploads/2016/06/Underlagsnotat_hydrogen_SINTEF.pdf. Accessed 9 Nov 2017.
- Hovden, E., & Lindseth, G. (2004). Discourses in Norwegian Climate Policy: National Action or Thinking Globally? *Political Studies*, 52(1), 63–81.
- Killingtveit, Å. (2016). *Norges ressurser/muligheter, magasiner, effekt, pumpekrafte*. <http://www.cedren.no/Portals/Cedren/3-Norges%20ressursermuligheter%2C%20magasiner%2C%20pumpekraft%20etc-Seminar%20gront%20batteri-16112016-Anund%20Killingtveit-NTNU.pdf>. Accessed 30 Oct 2017.
- Klassekampen. (2015). *Flere eksportkabler til EU?* www.klassekampen.no/article/20151123/PLUSS/151129908. Accessed 30 Oct 2017.

- Kojima, M., & Koplow, D. (2015). *Fossil Fuel Subsidies: Approaches and Valuation* (World Bank Policy Research Working Paper 7220). <https://openknowledge.worldbank.org/handle/10986/21659>. Accessed 11 Nov 2017.
- Koplow, D. (2009). *Measuring Energy Subsidies Using the Price-Gap Approach: What Does It Leave Out?* https://www.iisd.org/pdf/2009/bali_2_copenhagen_ff_subsidies_pricegap.pdf
- Krogh, A. (2016). *Statoil vil investere 60 milliarder i Johan Castberg*. <https://www.nrk.no/finnmark/statoil-vil-investere-60-milliarder-i-johan-castberg-1.13132316>. Accessed 11 Jan 2017.
- Lahn, B., & Wilson Rowe, E. (2015). How to Be a 'Front-Runner': Norway and International Climate Politics. In B. de Carvalho & I. B. Neumann (Eds.), *Small States and Status Seeking*. London: Routledge.
- Lewis, H. Ø. (2017). *Statoil har brukt 20 av 500 mrd. på fornybarprosjekter*. <https://sysla.no/gronn/statoil-har-brukt-20-av-500-milliarder-kroner-pa-fornybarprosjekter/?code=13380214ad8a46da8c918c0fcf8e1ff8835a2b95>. Accessed 30 Oct 2017.
- Lie, Ø. (2013a). Energiminister Tord Lien vil ha dyrere strøm. *Teknisk ukeblad*. <http://e24.no/energi/energiminister-tord-lien-vil-ha-dyrere-stroem/22601855>. Accessed 7 Nov 2017.
- Lie, Ø. (2013b). Vil eksportere overskuddskraft som hydrogen. *Teknisk ukeblad*. <https://www.tu.no/artikler/vil-eksportere-overskuddskraft-som-hydrogen/234040>. Accessed 11 Nov 2017.
- Lindström, A., & Ruud, A. (2017). Whose Hydropower? From Conflictual Management into an Era of Reconciling Environmental Concerns: A Retake of Hydropower Governance Towards Win–Win Solutions? *Sustainability*, 9(8), 2–18.
- Lysvold, S. (2016). *Statoil stadig mer hissig på Lofoten*. <https://www.nrk.no/nordland/statoil-stadig-mer-hissig-pa-lofoten-1.13085122>. Accessed 11 Jan 2017.
- Madrid, R. L. (2008). The Rise of Ethnopolitism in Latin America. *World Politics*, 60(3), 475–508.
- Matthews, R. B., van Noordwijk, M., Lambin, E., Meyfroidt, P., Gupta, J., et al. (2014). Implementing REDD+ (Reducing Emissions from Deforestation and Degradation): Evidence on Governance, Evaluation and Impacts from the REDD-ALERT Project. *Mitigation and Adaptation Strategies for Global Change*, 19(6), 907–925. <https://doi.org/10.1007/s11027-014-9578-z>.
- Mersky, A. C., Sprei, F., Samaras, C., & Qian, Z. (2016). Effectiveness of Incentives on Electric Vehicle Adoption in Norway. *Transportation Research Part D: Transport and Environment*, 46, 56–68. <https://doi.org/10.1016/j.trd.2016.03.011>.
- Mirza, M. F., & Bergland, O. (2015). Market Power in Norwegian Electricity Market: Are the Transmission Bottlenecks Truly Exogenous? *The Energy Journal*, 36(4).

- Moser, A., Maaz, A., Baumann, C., & Schäfer, A. (2015). *Value of Large-scale Balancing and Storing from Norwegian Hydropower for the German Power system and Generation Portfolios*. Institut für Elektrische Anlagen und Energiewirtschaft/ E.ON Kraftwerke. http://www.cedren.no/Portals/Cedren/Report_EON_Norway_final_stc20151103.pdf?ver=2015-12-02-150833-010. Accessed 11 Nov 2017.
- Mudde, C. (2004). The Populist Zeitgeist. *Government and Opposition*, 39(4), 542–563.
- Mundaca, G. (2017). How Much Can CO₂ Emissions be Reduced if Fossil Fuel Subsidies Are Removed? *Energy Economics*, 64, 91–104. <https://doi.org/10.1016/j.eneco.2017.03.014>.
- Naustdalslid, J. (1975). Oljesaka i statlege komitear og utval. In K. B. Wyller & T. C. Wyller (Eds.), *Norsk oljepolitikk* (pp. 11–37). Oslo, Norway: Gyldendal.
- Njarga, B. (2016). Så mye betaler du faktisk i avgifter for drivstoff. <http://www.dinside.no/okonomi/sa-mye-betaler-du-faktisk-i-avgifter-for-drivstoff/61904306>. Accessed 11 Jan 2017.
- Nordea. (2016). *Statoil Fuel & Retail: Advancing International Cash Management*. <http://www.nordea.com/Images/20-105931/statoil-fuel-retail-case-study-treasury.pdf>. Accessed 11 Jan 2017.
- O'Sullivan, M., Overland, I., Sandalow, D., Behrens, A., Bhatiya, N., et al. (2017). *The Geopolitics of Renewable Energy*. Columbia University and Harvard University. https://www.researchgate.net/publication/317954274_The_Geopolitics_of_Renewable_Energy. Accessed 15 Oct 2017.
- Oberthür, S., & Pallemarts, M. (2010). The EU's Internal and External Climate Policies: An Historical Overview. In S. Oberthür & M. Pallemarts (Eds.), *The New Climate Policies in the European Union* (pp. 31–63). Brussels: Brussels University Press.
- Orttung, R., & Overland, I. (2011). Russia and the Formation of a Gas Cartel. *Problems of Post-Communism*, 58(3), 53–66. https://www.researchgate.net/publication/274678269_Russia_and_the_Formation_of_a_Gas_Cartel. Accessed 8 Nov 2017.
- Overland, I. (2010). Subsidies for Fossil Fuels and Climate Change: A Comparative Perspective. *International Journal of Environmental Studies*, 67(3), 303–317. https://www.researchgate.net/publication/240515305_Subsidies_for_fossil_fuels_and_climate_change_A_comparative_perspective. Accessed 11 Nov 2017.
- Overland, I. (2015). Future Petroleum Geopolitics: Consequences of Climate Policy and Unconventional Oil and Gas. *Handbook of Clean Energy Systems*, 1–29. https://www.researchgate.net/publication/281774890_Future_Petroleum_Geopolitics_Consequences_of_Climate_Policy_and_Unconventional_Oil_and_Gas. Accessed 11 Nov 2017.

- Overland, I. (2017). The Hunter Becomes the Hunted: Gazprom Encounters EU Regulation. In S. Andersen, A. Goldthau & N. Sitter (Eds), *Energy Union: Europe's New Liberal Mercantilism?* (pp. 115–130). Basingstoke, UK: Palgrave Macmillan. https://www.researchgate.net/publication/309502480_The_Hunter_Becomes_the_Hunted_Gazprom_Encounters_EU_Regulation. Accessed 11 Nov 2017.
- Overland, I. (2018a). Did China bankroll Russia's annexation of Crimea? The role of Sino–Russian energy relations. In H. Blakkisrud & E. Wilson Rowe (Eds), *Russia's Turn to the East: Domestic Policymaking and Regional Cooperation* (pp. 95–118). Cham, Switzerland: Palgrave Pivot. <https://www.researchgate.net/publication/322158372>. Accessed 17 Jan 2018.
- Overland, I. (2018b). Norway: Public Debate and the Management of Petroleum Resources and Revenues. In I. Overland (Ed.), *Public Brainpower: Civil Society and Natural Resource Management* (pp. 217–245). London: Palgrave. https://www.researchgate.net/publication/320657120_Norway_Public_Debate_and_the_Management_of_Petroleum_Resources_and_Revenues. Accessed 11 Nov 2017.
- Overland, I., & Kjaernet, H. (2009). *Russian Renewable Energy: The Potential for International Cooperation*. Aldershot, UK: Ashgate.
- Overland, I., & Krivorotov, A. (2015). Norwegian–Russian Political Relations and Barents Oil and Gas Developments. In A. Bourmistrov, F. Mellempvik, A. Bambulyak, O. Gudmestad, I. Overland & A. Zolotukhin (Eds.), *International Arctic Petroleum Cooperation: Barents Sea Scenarios* (pp. 97–96). Abingdon, UK: Routledge. https://www.researchgate.net/publication/320357572_2015_-_Norwegian-Russian_political_relations_and_Barents_Sea_oil_and_gas. Accessed 11 Nov 2017.
- Overland, I., & Kutschera, H. (2011). Pricing Pain: Social Discontent and Political Willpower in Russia's Gas Sector. *Europe-Asia Studies*, 63(2), 311–331 https://www.researchgate.net/publication/254248306_Pricing_Pain_Social_Discontent_and_Political_Willpower_in_Russia%27s_Gas_Sector.
- Overland, I., Suryadi, B., & Win, U. T. (2016). *Energy Subsidy Reform: An International Comparative Perspective on Myanmar*. https://www.researchgate.net/publication/313652077_Energy_Subsidy_Reform_An_International_Comparative_Perspective_on_Myanmar. Accessed 11 Nov 2017.
- Pinchasik, D. R., & Hovi, I. B. (2017). A CO₂-fund for the Transport Industry: The Case of Norway. *Transport Policy*, 53, 186–195. <https://doi.org/10.1016/j.tranpol.2016.08.007>.
- Riisnæs, I. G. (2017, October 27). Sol og vind danker ut vannkraft. *Dagens Næringsliv*, p. 12.
- Rive, N., Torvanger, A., & Fuglestad, J. S. (2006). Climate Agreements Based on Responsibility for Global Warming: Periodic Updating, Policy Choices, and

- Regional Costs. *Global Environmental Change*, 16(2), 182–194. <https://doi.org/10.1016/j.gloenvcha.2006.01.002>.
- Rogalands Avis. (2013). *Trenger vi flere eksportkabler for strøm?* <http://www.dag-savisen.no/rogalandsavis/trenger-vi-flere-eksportkabler-for-strom-1.646435>. Accessed 30 Oct 2017.
- Roland, K., & Lien, T. (2017, January, 6). Kraftmarkedet er i et uføre. *Dagens Næringsliv*, p. 28.
- Romanova, T. (2016). Is Russian Energy Policy Towards the EU Only About Geopolitics? The Case of the Third Liberalisation Package. *Geopolitics*, 21(4), 857–879. <https://doi.org/10.1080/14650045.2016.1155049>.
- Rummelhoff, I. (2016, August 30). Derfor satser Statoil grønt, *Stavanger Aftenblad*. <http://www.aftenbladet.no/meninger/debatt/Derfor-satser-Statoil-gront-487373b.html>. Accessed 11 Jan 2017.
- Rygg, B. J. (2015). *Renewable Energy as a Community Concern How Local Communities Face the Challenge of Increasing Use and Production of Renewable Energy* (NTNU PhD Thesis). <https://brage.bibsys.no/xmlui/handle/11250/284414>. Accessed 11 Nov 2017.
- Ryghaug, M., & Toftaker, M. (2016). Creating Transitions to Electric Road Transport in Norway: The Role of User Imaginaries. *Energy Research & Social Science*, 17, 119–126. <https://doi.org/10.1016/j.erss.2016.04.017>.
- Sætre, E. (2017a). Statoil: Skal målene fra Paris-avtalen nås, må også mye olje og gass forbli i bakken. https://www.aftenposten.no/meninger/kronikk/i/qG9Q1/Statoil-Skal-malene-fra-Paris-avtalen-nas_-ma-ogsa-mye-olje-og-gass-forbli-i-bakken--Eldar-Satre. Accessed 30 Oct 2017.
- Sætre, I. (2017b). MDGs naivititet og ideologi. <https://www.aftenbladet.no/meninger/debatt/i/Wroek/MDGs-naivititet-og-ideologi>. Accessed 30 Oct 2017.
- Sæverud, I. A., & Wettestad, J. (2005). Norway and Emissions Trading: From Global Front-runner to EU Follower. *International Environmental Agreements*, 6(1), 91–108.
- Sanderud, P. (2017, January 12). Norge skal ikke være gratisbatteri. *Dagens Næringsliv*.
- Sharples, J. D. (2016). The Shifting Geopolitics of Russia's Natural Gas Exports and Their Impact on EU–Russia Gas Relations. *Geopolitics*, 21(4), 880–912.
- Solvang, E., Charmasson, J., Sauterlaute, J., Harby, A., Killingtveit, Å., et al. (2014). *Norwegian Hydropower for Large Scale Electricity Balancing Needs. Pilot Study of Technical, Environmental and Social Challenges* (Sintef Report A7227). <https://brage.bibsys.no/xmlui/handle/11250/297142>. Accessed 11 Nov 2017.
- Statoil. (2017). *Climate*. <https://www.statoil.com/no/hvordan-og-hvorfor/klimaendringer.html>. Accessed 6 Nov 2017.
- Staurset, K. B. (2011). *Lengre kyst og flere øyer*. www.statkart.no/Lengre+kyst+og+flere+oyer.d25-SwZrY27.ips. Accessed 10 Jan 2017.

- Sweijts, T., de Ridder, M., de Jong, S., Oosterveld, W., Frinking, E., et al. (2014). *Time to Wake Up: The Geopolitics of EU 2030 Climate and Energy Policies*. The Hague Centre for Strategic Studies (HCSS).
- Trademap. (2017). *Trademap*. http://www.trademap.org/Country_SelfProductCountry_TS.aspx. Accessed 10 Dec 2017.
- Ulvestad, M., & Overland, I. (2012). Natural Gas and CO2 Price Variation: Impact on the Relative Cost-Efficiency of LNG and Pipelines. *International Journal of Environmental Studies*, 69(3), 407–426 <https://www.researchgate.net/publication/261221877>. Accessed 18 January 2018.
- Unruh, G. C. (2000). Understanding Carbon Lock-in. *Energy Policy*, 28(12), 817–830. [https://doi.org/10.1016/S0301-4215\(00\)00070-7](https://doi.org/10.1016/S0301-4215(00)00070-7).
- Vattenfall. (2017). *Wind Power at Vattenfall*. <https://corporate.vattenfall.com/about-energy/renewable-energy-sources/wind-power/wind-power-at-vattenfall/>. Accessed 18 Oct 2017.
- Weir, D. (2017). *Vindkraft: produksjon i 2016 (NVE Report 12–2017)*. http://publikasjoner.nve.no/rapport/2017/rapport2017_12.pdf. Accessed 6 Nov 2017.
- Zhang, X., Myhrvold, N. P., Hausfather, Z., & Caldeira, K. (2016a). Climate Benefits of Natural Gas as a Bridge Fuel and Potential Delay of Near-Zero Energy Systems. *Applied Energy*, 167(1), 317–322.
- Zhang, Y., Qian, Z., Sprei, F., & Li, B. (2016b). The Impact of Car Specifications, Prices and Incentives for Battery Electric Vehicles in Norway: Choices of Heterogeneous Consumers. *Transportation Research Part C: Emerging Technologies*, 69, 386–401. <https://doi.org/10.1016/j.trc.2016.06.014>.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution 4.0 International License (<http://creativecommons.org/licenses/by/4.0/>), which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.



PART II

Outside In: National Adaptations



Channels of Influence or How Non-Members Can Influence EU Energy Policy

Jakub M. Godzimirski

INTRODUCTION

How can energy-producing non-members influence EU energy policy? The EU has become the world's most important energy importer and regional energy regulator. It also plays a leading role in setting the international energy agenda and shaping global energy and climate policies (Godzimirski, 2015c). In addition, the whole regional and global energy system is currently in a process of transformation that may have huge implications for relations between energy-producing and energy-consuming countries. The rapid development of various forms of renewable energy that can be produced and consumed locally has already had an impact on the energy priorities of actors and stakeholders and may change the form and the 'content' of energy relationships, locally and globally (O'Sullivan, Overland, & Sandalow, 2017; Scholten & Bosman, 2016).¹

¹ The possible impact of this growing focus on developing a 'greener' energy system in the EU is examined in detail in Chap. 4 of this volume.

J. M. Godzimirski (✉)
Norwegian Institute of International Affairs (NUPI), Oslo, Norway
e-mail: jmg@nupi.no

For the time being, however, the EU must still import energy to cover its energy needs. While this may create practical problems, it also gives the EU some regulatory and market leverage in its relations with actual and potential external suppliers of energy. In turn, external suppliers can be expected to look for channels to promote their interests within the EU and to influence EU energy policies to reduce possible negative impacts on their position as energy producers and suppliers. As many of the EU's external suppliers depend on the revenues generated by export of energy commodities to secure political stability or even regime survival, their interest in EU energy policy may be driven not only by economic concerns but also by strategic calculations and security assessments.

This chapter focuses on how external suppliers of energy may influence the process of shaping and implementing EU energy policy. I approach this question from two perspectives: a general one, mapping who the external suppliers are and how they can exert influence on EU energy policy and, a specific one, examining the actual practices of two key external energy suppliers—Norway and Russia. Norway is of interest for at least two reasons: its special form of affiliation with the EU, via membership in the European Economic Area (EEA), and its importance as a key external supplier of energy to the EU. Studying Russian practices in this context is highly relevant, also for at least two reasons: Russia is the main external supplier of energy to the EU; and it has also become a major source of strategic concern in the EU neighbourhood because of its role in the conflict in Ukraine and the high level of EU–Russia energy interdependence (Godzimirski, 2015b). However, a deeper investigation into the channels of influence (Greenwood, 2017) available to Norway and Russia would have to go beyond conventional approaches to studying how these actors may use formal institutional frameworks to influence EU energy policy. This chapter focuses on actual practices and how Norway and Russia use various types of non-hierarchical and non-institutionalized forms of cooperation that can play a major part in shaping the energy agenda.

The question of energy policy-making in the EU and EU approaches to external suppliers of energy are thoroughly studied in Chaps. 2 and 3 as well as in several recently published works (Andersen, Goldthau, & Sitter, 2015; Kuzemko & Hadfield, 2015; Pollak, Schubert, & Kreutler, 2016). This chapter focuses therefore on how these external actors' understandings of the institutional policy-making landscape in the EU, as well as procedures that regulate the policy-making process, may help them to

exert influence on EU energy policy. As the Lisbon Treaty has assigned specific roles in energy policy formulation and implementation to central EU institutions and member states, we expect the external actors to look for strategies of influencing both the EU and member-state levels.

WHO ARE THE KEY ENERGY ACTORS?

This chapter draws on data for the whole EU. However, Article 194 of the Lisbon Treaty specifies the division of labour between the EU and its member states. The EU is responsible for the functioning of the energy market, ensuring security of energy supply in the Union, promoting energy efficiency and energy saving, the development of new and renewable forms of energy and the interconnection of energy networks. Each member state retains the right to determine the conditions for exploiting its energy resources, its choice of energy sources and the general structure of its energy supply.

External actors supply energy not to the EU as such but to specific recipients in individual EU member states, but the general rules of the energy game are, at least in theory, the same throughout the territory of the EU. In 2015, more than 54 per cent of the EU-28's gross inland energy consumption—42.8 per cent of solid fuels, 88.8 per cent of petroleum and petroleum products and 69.1 per cent of natural gas—came from imported sources (European Commission, 2017). Since 2013 all EU member states have been net importers of energy. There has also been a relatively high concentration of supplies coming from a limited number of external suppliers—in 2015, 55.3 per cent of gas imports and 39.1 per cent of crude oil imports came from Russia and Norway; while 61.1 per cent of solid fuels were imported from Russia, Colombia and the USA.²

The fact that the EU needs to import more than half of its energy gives the external suppliers a certain leverage. On the other hand, the EU is the world's most important importer of energy, which makes access to its market a very attractive option. However, the EU has developed regulatory system that external actors must take into consideration when seeking to enter and remain in this market.³

² http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_production_and_imports.

³ The impact of this system is discussed in Chap. 2 of this volume; Chap. 3 examines the strategies chosen by external suppliers in their dealings with EU market and regulatory powers.

Energy Actors: States, Companies or Stakeholders?

The relationships shaping EU energy policy are complex. Available datasets provide information on the shares of energy supplies coming from various states over longer period of time (European Commission, 2017; Godzimirski, 2014). Table 5.1 offers an overview of the main external suppliers of various types of energy commodities to the EU in 2015.

Table 5.1 Key external suppliers of energy to the EU, 2015

<i>Country</i>	<i>Solid fuels</i>	<i>Natural gas</i>	<i>Crude oil</i>	<i>Key energy-exporting companies</i>
Algeria		8.8	4	Sonatrach
Angola			4	Sonangol
Australia	8.1			Anglo American Metallurgical Coal Ltd, BHP Billiton, Xstrata Coal, Peabody Pacific, Centennial Coal Company
Azerbaijan			4.9	SOCAR
Canada	1.4			Teck Resources Ltd
Colombia	21.3			Glencore, others
Indonesia	3.1			Adaro Energy, Berau Coal Energy
Iraq			7.2	Iraq National Oil Company
Kazakhstan			6.2	KazMunayGas
Libya		1.7		National Oil Corporation
Mozambique	0.4			Vale
Nigeria		1.6	8	Nigerian National Petroleum Corporation
Norway		25.9	11.4	Statoil
Others	18.6	25.5	18.9	
Peru		0.2		Peru LNG owned by Hunt Oil Company (50 per cent), SK Energy (20 per cent), Shell (20 per cent), Marubeni (10 per cent)
Qatar		6.1		Qatargas
Russia	25.8	29.4	27.7	Gazprom, Rosneft, Lukoil, Surgutneftegas
Saudi Arabia			7.5	Aramco
South Africa	6.9			Anglo American, South32, Sasol Mining, Glencore, Xstrata, Exxaro
Trinidad and Tobago		0.5		Atlantic LNG
Turkey		0.2		BOTAŞ Petroleum Pipeline Corporation
Ukraine	0.4			DTEK and others
USA	14			Peabody Energy, Arch Coal Inc., Cloud Peak Energy, Murray Energy Corp and others

Source on import shares: Eurostat (online data codes: nrg_122a, nrg_123a and nrg_124a), http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_production_and_imports, accessed 30.11.2017

However, energy commodities are produced and traded—and contracts are negotiated, signed and implemented—by commercial actors who may have various types of relations with states. This corporate dimension is indicated in Table 5.1, where, in addition to states, the main companies exporting energy commodities from these countries are listed.

The importance of corporate actors in energy trade was made clear by then Norwegian Minister of Energy and Petroleum Tord Lien in connection with the second EU–Norway energy conference held in Brussels, September 2014 (Ministry of Petroleum and Energy Norway, 2014). He underlined that decisions on the marketing of Norwegian gas are made by the producing companies and that the Norwegian state as such does not market gas. However, that does not mean that agreements are not supported by various forms of economic diplomacy coordinated by states (Bayne & Woolcock, 2007; Herranz-Surrallés, 2016; Slobodian, 2017; Stoddard, 2017)—but commercial actors play the main role in international energy trade, adopting various strategies for dealing with markets, including the specific EU energy market (Berkhout et al., 2015; Keller, 2016; Stoddard, 2017). There are many types of commercial actors. At the one end of the spectrum, we find independent, privately owned international companies and, at the opposite end, quasi-commercial actors owned by and operating on behalf of states that have either a controlling stake or the political power to make these actors operate as determined by their political patrons (James A. Baker III Institute for Public Policy, 2007).

It is important to examine the role of corporate strategies adopted by various actors operating in the energy sector and how those commercial strategies may influence states' choices in energy policy—for instance, to grasp how the relationship between the state authorities and companies can be understood in terms of principal–agent theory (Elmes, 2012; Godzimirski & Demakova, 2012). However, commercial actors and states are only two of many types of actors that may be affected by choices in energy policy made by the EU. That makes it useful to introduce the concept of *energy stakeholder*, here defined as any identifiable friendly or hostile group or individual who can affect the achievement of EU energy policy objectives or who is—or may be—affected by EU energy policy.⁴

⁴This definition is based on the seminal work by Freeman and Reed (2004 (1982)).

REPRESENTING NON-MEMBERS IN THE EU: FORMAL FRAMEWORKS

External suppliers of energy must have a good understanding of how the policy-making process in the EU is organized and the rules that regulate relations between various branches of EU power and between EU institutions and actors seeking to influence EU policies. EU policy-making can be viewed as a constant negotiation and re-negotiation of positions and preferences, so actors who want to make difference must be present—or at least represented—close to the EU epicentre where policies are designed and implemented (Greenwood, 2014; Knodt, Greenwood, & Quittkat, 2011).

There are many types of actors operating in Brussels and representing non-member states and non-state actors from non-member states with direct or indirect stakes in EU energy policy. Many external suppliers of energy represented in Brussels can be relatively easily identified by their official diplomatic missions; it is also generally understood how those official diplomatic representations operate and what diplomatic instruments are available to them (and to the EU) (Chun, 2009; Goldthau, 2010; Herranz-Surrallés, 2016; Slobodian, 2017; Stoddard, 2017; Zhiznin, 2012).

However, in addition to official state representations, there is an abundance of other actors representing the energy interests of states and of non-state actors with stakes in EU energy policy. The EU Transparency Register (European Union, 2017)⁵ is a public website where organizations representing interests at EU level register and provide up-to-date information about those interests. The Register is intended to facilitate finding answers to these questions:

- What interests are represented at the EU level?
- Who represents those interests and on whose behalf?
- What resources are available to these actors for promoting their interests?

This chapter uses the Transparency Register to map what organizations with interests in energy policy are represented officially in Brussels, what resources they have at their disposal, what their stakes in the EU energy policy are and how they may influence such policy.

⁵ <http://ec.europa.eu/transparencyregister/public/homePage.do>.

As of the end of August 2016, there were 9749 entries in the register, in 6 categories and 15 sub-categories. A search in the registry conducted at that time showed that 3761 of those registered identified ‘energy’ as at least one of their fields of interest. Official lobbying, defined by the EU as activities carried out with the objective of directly or indirectly influencing the formulation or implementation of policy and decision-making processes of EU institutions, is one channel for influencing EU energy policy (Transparency International, 2015). In the following, the focus is on how key external energy suppliers to the EU are represented in this register, the resources at their disposal, how they define their energy interests in the EU context, and how they work to convey their message and promote their energy interests in the EU.

Table 5.2 presents a quantitative analysis of the data in the EU Transparency Register. It combines the list of the countries categorized as main external energy suppliers with the total number of registrants from each of these countries, as well as the number of registrants representing various (sub-)categories. The list contains all countries listed as main suppliers of energy commodities—solid fuels, crude oil and natural gas—in 2015, in alphabetical order.

Russian Registrants and Their Energy Interests in the EU

We see there were eight Russian actors with interests in energy operating formally in Brussels and registered in the Transparency Register. Two—ACIG and Rumyantsev and partners—belong to category I, in the sub-category ‘professional consultancies’. Four belong to category II—two of them, Lukoil and Gazprom, in the sub-category ‘companies and groups’; two others—the Association of European Businesses (AEB) and the non-profit partnership ‘Industry Round Table for Cooperation with the European Union’ (NP IRT)—are in the sub-category ‘trade and business associations’. Categories III and IV are represented by one Russian actor each—JSC Inter RAO UES, which has an office in Belgium and belongs to the sub-category ‘non-governmental organizations, platforms and networks and similar’, and the Joint Institute for Nuclear Research (JINR) in the sub-category ‘academic institutions’. The JINR’s presence may be explained by the fact that Russia has been trying—with partial success—to become more active in shaping the future of the EU nuclear energy sector and has been involved in several successful projects in Hungary, Finland and Bulgaria.

Table 5.2 Number of registrants with interests in energy from key external energy suppliers, as of late August 2016, EU Transparency Register

<i>Country</i>	<i>Category I</i>	<i>Category II</i>	<i>Category III</i>	<i>Category IV</i>	<i>Category V</i>	<i>Category VI</i>	<i>All registered categories with energy</i>
Algeria							0
Angola							0
Australia	1	4		1			6
Azerbaijan		1					1
Canada		9	2				11
Colombia							0
Indonesia							0
Iraq							0
Kazakhstan							0
Libya							0
Mozambique							0
Nigeria			1			1	2
Norway	1	22	3	4	5		35
Peru							0
Qatar							0
Russia	2	4	1			1	8
Saudi Arabia							0
South Africa			1			1	2
Trinidad		1					1
Tobago							
Turkey	2	6	1	1		1	11
Ukraine							0
USA	18	72	20	13			123

Russian formal representation in the EU does not appear to be very strong in terms of personnel—ACIG has 5 people working for them or 2.5 full-time employees, Rummyantsev has 7 employees (3.5 full-time positions), Lukoil has 2 full-time employees, Gazprom has 10 employees (filling 4 full-time positions), AEB has 2 full-time employees, NP IRT is represented by 1 person representing 0.25 full-time position and RAO UES has 1 full-time employee, while JINR claims to have 125 employees who fill 47.5 full-time positions. Rummyantsev had one person, Gazprom four, Lukoil seven and Inter RAO UES one person officially affiliated with the European Parliament, a major arena for EU policy-making.

All the above listed Russian actors have interests in EU energy policy, although their position on the EU energy interest maps clearly differs. Gazprom is the biggest supplier of gas, selling approximately one-third of gas imported to the EU, where it is well known. Similarly, Lukoil does business in 15 EU countries. RAO UES is the most important of the Russian companies operating in the power generation sector, but structural constraints limit Russian exports of electricity to the EU. These Russian actors follow the activities of governmental and non-governmental regulatory authorities of the EU, in particular the European Parliament, the European Commission, the European Council, the Secretariat of the Benelux countries and the Western European Union, as well as other relevant international bodies.

The remaining four Russian actors are much less known in the EU. The ACIG Group of Companies is active in the system for promotion of international development of the Russian Federation and represents Russia in a range of international organizations.⁶ Rummyantsev & Partners Consulting Agency works in the field of external corporate relations and communications with the authorities and key decision-makers regulating business development issues critical for its clients, as well as with the expert community and public opinion leaders.⁷

AEB is the main representation of foreign investors in Russia. Describing itself as ‘an independent non-commercial organization that represents and promotes the interests of European companies conducting business in and with the Russian Federation’, it conducts activities aimed at improving the Russian business and trade environment and promoting economic integration and partnership between the Russian Federation and the EU.⁸

⁶<http://www.acig.ru/en/>.

⁷<http://www.rummyantsevconsulting.com/>.

⁸<http://www.aebus.ru/>.

The NP IRT has, since its creation in 2008, been voicing the need for combined efforts on the part of leading Russian businessmen to improve the political and legal climate of Russia–EU relations, eliminating barriers to the implementation of mutually advantageous projects and business incentives. Members of the partnership, major Russian companies as well as business and analytical think-tanks, join to identify and tackle common problems facing Russian businesses in developing trade and investment relations with the EU, including finding solutions to current political and economic challenges.⁹

Because the EU is the most important market for supplies of Russian gas, the further analysis of the EU practices of Russian actors focuses on the activities of Gazprom. It is formally represented in the Transparency Register and is currently the sole supplier of Russian gas to the EU.

Norwegian Registrants and Their Energy Interests

The EU Transparency Register contains data on 95 registrants from Norway. Of these, 35 identify ‘energy’ as one of their fields of interest and thus figure on the list of 3761 registrants with stakes in energy. Only one of these—Per Henning Boqvist, a self-employed consultant—belongs to category I; most registrants (22) belong to category II; three—NOBIO, Bellona Europe and the Norwegian Association Against Noise (*Norsk forening mot støy*)—are in category III; four are in category IV; and five Norwegian registrants belong to category VI.

In category II there are twelve Norwegian entries in the sub-category ‘companies and groups’; seven in the sub-category ‘trade and business associations’; two ‘energy’ registrants, the Norwegian oil and gas association *Norsk olje & gass* and the International Gas Union, in the sub-category ‘trade unions and professional associations’; and one Norwegian registrant, *Norsk industri*, in the sub-category ‘other organizations’.

In category III we find three Norwegian NGOs—NOBIO, Bellona Europe and the Norwegian Association Against Noise. In category IV there are two registrants in the sub-category ‘academic institutions’, the Norwegian University of Science and Technology (NTNU) based in Trondheim and the University of Bergen; and two in the sub-category ‘think-tanks and research institutions’, the University College of Southeast Norway (USN) and SINTEF. Finally, in category VI we find three in the

⁹<http://irt-rus.org/npksp>.

sub-category 'regional structures' (Eastern Norway County Network, North Norway European Office and the interest organization *Samarbeidende Kraftfylke*), one (the North Sea Commission) in the sub-category 'transnational associations and networks of public regional or other sub-national authorities' and one (KS Enterprises) in 'other sub-national public authorities'.

To get an idea of the importance of their presence in Brussels, we turn to the human resources at the disposal of these Norwegian registrants. The higher the number of employees a registrant has in Brussels, the more important will this presence presumably be deemed by the mother organization in Norway. Seven of the 35 Norwegian registrants have six or more employees in their Brussels offices, four have five employees, three have four employees and the remainder have less than four each. Although all the Norwegian registrants have identified 'energy' as one of their key interests, not all of them represent Norwegian energy exporters with direct stakes in the European energy market. By comparing the list of Norwegian registrants with the list of Norwegian actors who export various types of energy to the EU, we can narrow the scope to a smaller group of actors with direct interests in EU energy policy. This list includes Nord Pool Spot AS (NPS) with 16 employees in Brussels (8.25 full-time equivalent (FTE)), Statnett with 5 employees (5 FTE), Statoil with 7 employees (3 FTE) and Statkraft with 6 employees (2.5 FTE).

FRAMEWORKS, INTERESTS AND INSTRUMENTS

That actors who have high economic and political stakes in EU energy policy seek to influence policy-making processes should not be surprising. However, it is important to nuance the picture, to understand how this is done in practical terms. This section examines what instruments are available as regards the policy-shaping/making process, and how they are used by external energy suppliers, on the EU as well as the national levels.

We focus on the practices of Norwegian and Russian actors who have direct stakes in EU energy policy and are represented in formal and informal frameworks. Since Norway and Russia are major suppliers of gas to the EU, and the gas market has been undergoing a radical transformation, it is of considerable interest to see how these two actors have been adapting to the changing conditions. Moreover, gas supplies from Russia have become strongly politicized or even securitized in many importing countries, and the future of the Nord Stream 2 project is a main bone of contention

within the EU. Gas supplies from Norway, by contrast, are increasingly viewed as much safer in market and political terms. They have helped some member states (the Czech Republic and Lithuania) to reduce their dependence on Russia and are expected to help some others—like Poland—to solve their gas-supply dilemmas in the near future (Godzimirski, 2015a; Godzimirski, Vilpišauskas, & Švedas, 2015).¹⁰

What seems to worry both Russia and Norway is the role of natural gas in EU's strategic energy designs. Both suppliers have invested heavily in infrastructure linking gas production sites with consumers and want thus to use this infrastructure in the future, even develop it further to strengthen their position on the EU gas market and 'defend' their shares—as exemplified by the ongoing discussions on Nord Stream 2 and the Baltic Pipe project between Denmark and Poland. However, with the EU seeking to reduce the role of fossil fuels in its energy mix, the actors that now supply gas to the EU may face not only competition from non-fossil fuels but also greater competition for market shares from each other and from new LNG suppliers (Boussena & Locatelli, 2017; Grigoriev, Golyashev, & Analiticheskii tsentr pri pravitelstve Rossiyskoy Federatsii, 2016; Henderson & Moe, 2016; Rolle, 2017).

The main focus in this section is on practices adopted by Norwegian and Russian actors in their attempts at influencing EU energy policy.¹¹

Representations and Interests

Both Norway and Russia have representations in the EU. The Mission of Norway to the EU has 52 employees, including 13 in administrative functions and 2 trainees. Four members of the staff are assigned tasks related to energy, climate and environment, and two work on economic and financial matters which may also have relevance to Norway–EU energy cooperation. In other words, 10 per cent (4 out of 39) of the nonadministrative staff work on issues directly related to Norway–EU energy cooperation (Norway and the EU. Mission of Norway to the EU, 2017). In addition, Norway's energy interests in the EU are officially represented by a group of actors registered in the EU Transparency Register. An overview

¹⁰ <https://twitter.com/BiznesAlert/status/946868241393180674>.

¹¹ The questions of how the EU projects its market and regulatory power are dealt with in Chaps. 2 and 3 of this volume and elsewhere (Godzimirski & Nowak, 2018); the specifics of Norway's relationship with the EU as regulated by the EEA Agreement are dealt with in Chap. 6 of this volume.

of these actors was provided above; one of them—Statoil—merits closer scrutiny in this section where policy-related practices are examined. As mentioned, Statoil's interests are represented in Brussels by seven employees. This work is headed by Anders Marvik, who has more than 20 years of experience in the oil and gas sector.

Russia's state interests in the EU are represented by the Permanent Mission of the Russian Federation to the European Union, which has 60 diplomatic representatives. Five members of the diplomatic staff are responsible for the management of energy relations between Russia and the EU, and one has responsibility for dealing with climate and environmental issues. In addition, Deputy Representative Karen Malayan is responsible for coordination of economic, sectoral and regional cooperation, and four staff members are assigned tasks related to commercial cooperation between Russia and the EU. Since energy is the main Russian export commodity to the EU, these responsible for commercial cooperation should also be considered as involved—at least indirectly—in the management of Russia–EU energy relations. This means that more than 18 per cent of the diplomatic personnel at the Permanent Mission deal directly or indirectly with energy-related matters (Permanent Mission of the Russian Federation to the European Union, 2017a).

Energy cooperation is defined officially as one of key priorities of Russia–EU relations. Russia is the world's largest gas exporter; it competes with Saudi Arabia and the USA for the title of the largest producer and exporter of oil. The EU is the primary consumer of Russian energy resources exported beyond Russia's borders (Kardaś, 2016, 2017). This makes both parties interested 'in enhancing mutually beneficial energy cooperation which would contribute to strengthening energy security of both sides, establishing fair rules for functioning of energy markets and greater predictability of these markets' (Permanent Mission of the Russian Federation to the European Union, 2017b).

In addition to official Russian state representation, Russia's energy interests in the EU are promoted by Gazprom's Brussels office, which has ten employees (filling four full-time positions and with a budget close to €1 million)¹² and other actors noted in the previous section on Russian representation in the EU Transparency Register. Gazprom's office in Brussels was opened in 2013 in order to make an active dialogue with the EU bodies more efficient¹³; since April 2014, it has been headed by Mikhail

¹²<https://lobbyfacts.eu/representative/085864fc985b4bd5955d25b76b207942>.

¹³<http://www.gazprom.com/press/news/2013/december/article179535/>.

Lebedev, who graduated from the prestigious MGIMO School and has worked with the key Russian media outlet targeting Western audiences, RT, previously known as Russia Today.¹⁴

Norway and Russia have both common and conflicting energy interests. As key producers, exporters and suppliers of fossil energy to the EU, they are keenly interested in securing the long-term position of their fuels on the EU energy market under shifting political and climate conditions. Additionally, they both can be expected to wish to prevent other actors from delivering energy supplies to this market if that would be detrimental to their own energy interests. However, they also compete with each another for shares on the European market and especially the gas market: they need returns on their long-term investments in infrastructure, in a situation when demand for gas on the European market seems to be leveling out and other potential suppliers of gas—primarily LNG—may bring increased competition on a market already undergoing rapid change, with more focus on spot contracts and less focus on long-term arrangements (Grigoriev et al., 2016; Migunov & Kogan, 2017).

Both countries are interested in extending the lifespan of the gas sector in the face of various climate- and sustainability-related pressures. This was summed up by the above-mentioned Anders Marvik in a recent interview where he outlined the long-term interests of Statoil—and most probably other gas producers (James, 2017). Marvik argued that the world will need much more gas than it uses today, that power generation should be switched from coal to gas, that gas helps intermittent renewables by being a base-load supply and finally that gas with carbon capture (CCS) has a place in the long-term energy mix.

Instruments

What instruments do both the EU and those seeking to influence EU energy policy have at their disposal? In this examination of Norwegian and Russian practices vis-à-vis the EU the categorization of energy policy instruments proposed by Egmond, Jonkers and Kok can be useful (Egmond, Jonkers, & Kok, 2006). According to these authors, judicial instruments prescribe desired behaviour and set norms and as such influence the behaviour of actors by making it clear what is desirable and accepted and what is not. Actors who comply and play by the rules can

¹⁴ <https://www.linkedin.com/in/mikhail-lebedev-21b3a849/>.

expect rewards, while those who do not follow the rules may be punished in various ways (including sanctions). Economic instruments are aimed at influencing the financial considerations of actors, by offering economic incentives to those who accommodate, while de-incentivizing those who oppose the energy projects promoted by actors interested in gaining access to the EU market. In addition, various communicative instruments can be used to transfer information aimed at persuading, convincing or tempting the intended target. These can also be combined with and supported by other types of instruments, where the aim is to create support, increase awareness or strengthen opposition in society. Finally, actors seeking to influence EU energy policy may use infrastructural, physical instruments to promote their interests. This can, for instance, include construction of various elements of physical energy infrastructure, such as Nord Stream 1 and 2 pipelines, the planned Baltic Pipe or various types of gas and power interconnectors, or actions aimed at the existing infrastructure to change its physical and market parameters and render it either useful or useless to other actors—used, for instance, by Russia to stop supplies of gas from Turkmenistan or the plan of Gazprom to stop sending gas to Europe via the Ukrainian network that is announced to happen in 2019 (for a historical perspective on these questions, see Larsson, 2006; Orttung & Overland, 2011).

FORMAL AND INFORMAL PRACTICES

What do *non-EU* actors need, to influence EU energy policies by using the policy instruments described above? First, they need a good understanding of EU short-, mid- and long-term objectives in energy policy, so they can identify how realization of the energy goals currently set by the EU may provide opportunities or pose challenges to their own short, mid- and long-term energy interests (Birchfield & Duffield, 2011; Buchan, 2014; Buchan & Keay, 2016a, 2016b; Eberlein, 2010, 2012; Kuzemko & Hadfield, 2015; Matlary, 1997).

Second, to influence EU policy and to promote their own energy interests in the EU, they must understand the policy-making process in the EU, in order to know how, when and where they can take action to influence it (Carammia, Princen, & Timmermans, 2016; Princen, 2012; Richardson, 2012). Third, they need a good grasp of the EU regulatory and legal framework, in order to identify weak spots and legal loopholes

that can be used to their own advantage and to avoid steps that could make the EU react negatively to their actions. Fourth, they must understand how the way they relate formally to the EU may either help them to influence EU policies or constrain their choices. Fifth, they must be well-versed in the energy policies and priorities of EU member states and energy stakeholders operating in the EU member states: it may be possible to influence EU energy policy also by influencing the energy policies of these actors and building formal and informal energy alliances based on their shared energy interests. And finally, they should be aware that in dealing with the EU, they are likely to be rule-takers and not rule-makers, even though they may try to influence EU rules through lobbying and coalition building (Gullberg, 2013, 2015; Szulecki, Fischer, Gullberg, & Sartor, 2016).

As a member of the European Economic Area (EEA), Norway follows EU rules almost automatically (Ministry of Foreign Affairs Norway, 2012). This makes it a quasi-EU member: treated as a quasi-insider by other EU members and by the EU bureaucracy but with no formal access to EU policy-making and decision-making. Here lies a paradox—Norway is institutionally and politically closer to the EU than all its other external energy suppliers and is obliged to follow EU rules—but as regards influencing EU policy-making processes, it must operate not as a state involved in interstate cooperation but as all other EU lobbyists do. As one Norwegian diplomat who has worked for many years with EU matters put it: ‘we are invited to some meetings to be informed about decisions made before we were allowed to enter the room’ (Bergesen, 2012) (my translation).

In that sense, the situation of Norway does not differ very much from that of other external suppliers of energy, although the level of EU trust in Norway as an energy partner is much higher than the level of trust in Russia, which is widely viewed as a more demanding and difficult energy partner. Further, the fact that Norway shares EU political norms and values and the long-term objective of making the European and global energy mix more sustainable creates considerable goodwill in the EU bureaucracy and policy-making bodies. This makes Norwegian energy lobbying in the EU much easier, as Norway’s energy resources are viewed as a part of the solution—not a part of the problem, as is often the case with energy resources coming from Russia.

Instruments in Action

An interesting view on how to be an efficient energy lobbyist in the EU was recently provided by the earlier-mentioned Anders Marvik, head of the Statoil office in Brussels, a person with long experience in dealing with energy-related matters in corporate as well as political environments. When asked how to influence EU energy policy, he presented a list of elements essential to success (Koj, 2017): (1) traditional face-to-face meetings, (2) involvement in the public debate, with a clear position and visible presence and (3) use of the social media. Marvik explained that all these three elements interact: the more visible in the debate and social media you are, the more you become known, with greater chances of being invited to more events, including the closed meetings central to your interests. He added a further element of importance—the question of the mandate defining how various actors are allowed or not to take part in the process due to the form of their affiliation with the EU. For instance, EEA membership gives Norway an easier access to some parts of the policy-making process and bureaucracy in the EU which is not the case with those who do not belong to this EEA club.

These remarks made by a highly experienced and well-reputed figure offer a good point of departure for examining the practices adopted by Norwegian and Russian actors with stakes in EU energy policy. Marvik's main conclusion is that, to be able to make an impact on EU energy policy, it is essential to communicate with the EU and with the various actors that shape EU energy policy. Here we will therefore focus on the use of communicative instruments by Norwegian and Russian actors seeking to influence EU energy policy while also noting that other policy instruments may be employed.

This analysis is based on a thorough examination of the use of social media—in this case, Twitter and the Internet—on the part of Norwegian and Russian actors, in terms of both the form and the content of the communication between these actors and the broader EU audience. Table 5.3 presents information on the use of Twitter by key Norwegian and Russian actors, the prominence of energy-related issues in these communicative efforts and main topics addressed.

What, then, is the energy message Norway tries to convey to EU audiences to get them to understand what Norwegian energy priorities are and how the EU and Norway should work together to reach a mutually advan-

Table 5.3 Key Norwegian and Russian energy lobbyists and their use of Twitter, as of 30 December 2017

<i>Name and function</i>	<i>Country</i>	<i>Twitter account</i>	<i>Number of tweets</i>	<i>Followers</i>	<i>Hits containing term 'energy'</i>
Gaute Erichsen, Energy Counsellor, Mission of Norway to the EU	Norway	@GauteErichsen	161	148	23
Mission of Norway to the EU	Norway	@NorwayEU	3747	4262	11
Oda Helen Sletnes, Ambassador of Norway to the European Union and Head of Mission	Norway	@sletnes	451	1226	5
Ingrid Schulerud, Ambassador of Norway to Belgium; Deputy Head of @NorwayEU	Norway	@IngridSchulerud	1489	1446	4
Anders Marvik, Statoil Office Brussels	Norway	@energyblogging	3945	2381	9
The Permanent Mission of Russia to the EU	Russia	@RusMission_EU	2610	3951	1
Gazprom	Russia	@GazpromEN	1620	48.6 K	
Gazprom Int'l	Russia	@gazprom_int	421	7276	
Gazprom Germany	Russia	@GazpromDE	1186	19.2 K	
Gazprom Energy	Russia	@GazpromEnergyUK	372	810	

tageous energy consensus? On 25 September 2014, the Second EU–Norway Energy Conference was held in Brussels. Norwegian officials used this occasion to reiterate that Norway is an important partner for the EU as provider of security of supply in gas and power generation markets. Norway was also presented as a country where more than 140 EU companies were active in the supply chain, holding 40 per cent of Norway's oil and gas resources and creating around 100,000 jobs within the EU. Also emphasized was the Norwegian–EU commonality of energy interests, with Norwegian gas as an important source of cleaner energy that would help the EU in dealing with climate issues. Norway was presented as a reliable

partner whose well-developed infrastructure operated under conditions of transparency; moreover, Norway was willing to assist the EU in achieving its energy and climate goals in a situation when ‘the recent tragic events in Ukraine have put gas security on top of the energy agenda in Europe’.¹⁵

The same message about the importance of gas in the future energy mix and Norway as a reliable provider was repeated in a tweet posted on 25 October 2015 on the occasion of Ambassador Schulerud’s visit to Zeebrugge gas terminal in Belgium.¹⁶ A similar discussion between Norwegian and EU policy-makers was also announced in a tweet posted on 2 February 2016 with information about the upcoming Third EU–Norway Energy Conference.¹⁷ The two key topics discussed at this conference reflected both Norwegian and EU energy priorities—the role of gas in the EU of tomorrow and the Nordic electricity market as a model of regional integration. It was reiterated that Norway is a strategic energy partner of the EU and that, as a major supplier of oil, gas and electricity to the EU, it has incorporated EU energy market rules into its legislation. Norwegian participants also used this opportunity to request clear answers from the EU on two important questions—the role of natural gas in Europe’s future energy mix and steps to be taken to improve the functioning of the European energy market (Lien, 2016).¹⁸

The Norwegian message succeeded in reaching the target group: on 12 February 2016, exactly one week after the conference, Maroš Šefčovič, Vice-President of the EU Commission responsible for coordination of energy policy, referred to Norway as a strong and reliable partner and expressed interest in continuing energy cooperation with Norway.¹⁹

Energy is also an important issue in cooperation between Norway and several EU members—as shown by a tweet posted by the Mission of Norway to the EU on 13 October 2016, announcing greater cooperation with Romania.²⁰ Only two weeks later, the Mission posted information about debate on geopolitics and energy involving Norwegian Minister of Energy Tord Lien and Maroš Šefčovič, where the two discussed

¹⁵ <https://www.regjeringen.no/no/aktuelt/2nd-EU-Norway-Energy-Conference/id2001528/>.

¹⁶ <https://twitter.com/norwayeu/status/657201046528348161>.

¹⁷ <https://twitter.com/energy4europe/status/694530560778174464>.

¹⁸ <https://ec.europa.eu/energy/en/events/3rd-eu-norway-energy-conference>.

¹⁹ <https://twitter.com/marossefcovic/status/698194531674693632>.

²⁰ <https://twitter.com/norwayeu/status/786504639030042624>.

energy-related questions of common interest.²¹ On 16 November 2016, Ambassador Schulerud informed about Norway's energy cooperation with another member state—Belgium²²; and on 1 February 2017, Ambassador Sletnes tweeted enthusiastically about an event involving Statnett, NVE and Energinett, where good Nordic energy solutions were presented.²³ On 27 February 2017, the Mission of Norway reiterated that Norway would continue to push for broad, ambitious and binding cooperation with EU on climate and energy²⁴ and would maintain the good political dialogue with the European Parliament's Committee on Industry, Research and Energy (ITRE) and its Chair Jerzy Buzek, focusing on stable supply of energy, CCS and the Arctic.²⁵ One month later, on 23 and 24 March 2017, Ambassador Sletnes and the Mission of Norway praised Norwegian CCS experience and cooperation with the EU on this matter.²⁶

On 28 March 2017, Ambassador Schulerud expressed positive opinions on the EU's efforts for an Energy Union and underlined the importance of Norwegian gas in the future energy mix while also calling for greater involvement of EU citizens in energy policy.²⁷ On 16 May that year, the Mission of Norway underlined the importance of a common determination to combat climate change²⁸; and on 8 June it discussed how the Nordic energy market could serve as a model for effective, low-carbon energy markets in Europe.²⁹

To increase awareness of the importance of Norway as energy supplier, on 30 June 2017, the main issues in Norway's energy policy were presented to EU attachés then visiting Norway's Troll gas field, the Sima hydropower plant and the Mongstad CCS trial centre.³⁰

These communicative efforts by Norwegian state officials have been supported by activities of Norwegian stakeholders operating in Brussels.

²¹ <https://twitter.com/NorwayEU/status/791980796714315776>.

²² <https://twitter.com/ingridschulerud/status/798821219243962368>.

²³ <https://twitter.com/sletnes/status/826898165513072640>.

²⁴ <https://twitter.com/NorwayEU/status/836257667345756161>.

²⁵ <https://twitter.com/NorwayEU/status/836253151137267712>.

²⁶ <https://twitter.com/sletnes/status/844842820200382464> and <https://twitter.com/NorwayEU/status/8452599538038800576>.

²⁷ <https://twitter.com/IngridSchulerud/status/846679557524668417> and <https://twitter.com/IngridSchulerud/status/846755171061415937>.

²⁸ <https://twitter.com/NorwayEU/status/864498744837984256>.

²⁹ <https://twitter.com/NorwayEU/status/872816118540505088>.

³⁰ <https://twitter.com/NorwayEU/status/880829316946427907>.

The most important here are Statoil, which has organized 39 meetings with higher EU officials since 2014 (LobbyFacts.eu, 2017b), Statnett, with ten reported meetings, Statkraft with four reported meetings and Nord Pool AS, although with no reported meetings as yet (LobbyFacts.eu, 2017a).

In addition to these communicative efforts by key Norwegian official actors and other energy stakeholders operating in Brussels, Norwegian energy stakeholders have established direct contacts with several states that are important energy customers. A central arena for bilateral energy cooperation is the German–Norwegian Energy Forum, with 21 meetings that have provided good opportunities for exchanging views on the direction of changes in the European and German energy markets (Innovasjon Norge, 2017). Key discussions at this bilateral forum have focused on natural gas as a transition fuel, energy efficiency as a way of reducing consumption and the importance of increasing the share of renewable energy, reducing emissions and building new interconnectors.

Concerning the use of infrastructural instruments as a way of promoting energy cooperation between Norway and the EU, it can be noted the possibilities for extending existing, well-developed gas transport infrastructure (as illustrated by the Baltic Pipe project) are presented as a key competitive advantage of Norwegian gas suppliers. Also the fact that Norway can supply LNG makes it a more flexible and attractive partner to EU members like Lithuania and Poland, who have recently invested in LNG infrastructure. In addition Norway has decided to build new power interconnectors between Norway and the EU—to Denmark, which will add 700 MW (SK4), to Germany with 1400 MW capacity (NordLink, to be put on line in 2018) and to the UK (NSN, with 1400 MW capacity, to be built by 2020) (Fostervold, 2014). Presenting the company's infrastructural plans, head of the Statnett Brussels office, Tor Eigil Hodne, noted that this bilateral cooperation not only helps to deal with several national energy challenges—it also plays a role in implementation of EU energy plans by addressing such key EU energy concerns as energy affordability, security of supply, energy security, sustainability, market integration and upgrading/extension of energy infrastructure (Hodne, 2014).

Turning now to Russian actors, they seem to have adopted a different approach to communicating with the EU, using more traditional channels of communication and (probably) also informal ways of influencing the energy policies of the EU and its member states. As the most important external supplier of energy to the EU, Russia does not have to worry

about attracting EU attention to its energy-related actions. On 1 October 2015, EU energy boss Maroš Šefčovič acknowledged the importance of Russia and encouraged Moscow to adopt an approach based not on threats but on consensus seeking—advantageous to both the EU and Russia itself.³¹ One year later, on 25 November 2016, he reiterated that Europe and Russia are interdependent on energy issues³²; on the same day, he underlined the importance of the trilateral dialogue between Russia, the EU and Ukraine, expressing the hope that talks in Moscow would bring positive results.³³

As a true EU ‘outsider’ with massive energy interests in the EU, Russia has embarked on a strategy of building multifaceted frameworks to manage this energy relationship, to communicate with the EU on energy-related matters and influence the energy policies of the EU and its member states in ways in line with its own energy interests. Russia and its ‘agents’ have employed a wide range of formal and informal lobbying practices to promote Russian energy interests in Europe. The list includes establishing a Gazprom office in Brussels in 2013, open participation in consultative processes, direct communications with decision-makers—for instance, the eight meetings between the Gazprom Brussels office and high EU officials—and the use of professional consultancy firms, think-tanks and research institutions, trade and business associations and law firms to influence EU and national energy policies. In addition to these formal lobbying efforts, Russian energy stakeholders have used also various informal ways of influencing energy policies in the EU and its member states. These have included the creation and use of formal and informal networks involving former politicians and intelligence officers—with former German Chancellor Gerhard Schröder epitomizing this phenomenon, as detailed in an interesting book published recently in Denmark (Høvsgaard, 2017)—the use of political and economic corruption to promote Russian energy interests (Conley, Mina, Stefanov, & Vladimirov, 2016) and other opportunities to influence EU and national energy policies (Transparency International Russia, 2017). Of the various economic instruments used by Russia to promote its energy interests in the EU, we may mention offering preferential loans to those willing—for example, Hungary—to buy energy or energy technology from Russia and offering access to Russian energy

³¹ <https://twitter.com/marossefcovic/status/649519015040282625>.

³² <https://twitter.com/MarosSefcovic/status/802060184256479233>.

³³ <https://twitter.com/MarosSefcovic/status/802100372244463616>.

resources to actors who could facilitate access to EU energy market, as with Western energy companies involved in the realization of the Nord Stream 1 and Nord Stream 2 projects.

These formal and informal lobbying efforts are coordinated at the highest political level and involve representatives of the Russian state and of the state-owned corporate actor Gazprom (for an interesting examination of how this was coordinated in the case of Nord Stream 1, see Godzimirski, 2011). The LobbyFacts.eu website provides a good overview of Gazprom's activity in Brussels (LobbyFacts.eu, 2017b), listing eight formal meetings between Gazprom and high-level EU officials like commissioners, their cabinet members or director generals at the European Commission. To map how Russia conducts its energy lobbying in the EU, here we offer a brief examination based on data from the official website of the Permanent Mission of Russia to the EU.³⁴ This approach was chosen because Russian officials are generally reluctant users of social media—neither the head of the mission V. Chizhov nor the head of Gazprom's Brussels office Mikhail Lebedev has Twitter accounts.

This examination of Russian EU lobbying activity goes back to 2010 and is used to map the key arenas and topics discussed in this context. The most important formal framework used is the EU–Russia Energy Dialogue established in 2000 (European Commission, 2011; Talseth, 2012), involving regular meetings of Russian and EU high officials responsible for energy policy. In addition, several International Conferences on Energy Dialogue: Russia–European Union have been organized—at the seventh one, held on 27 April 2012, the head of the Russian Mission presented Russia's energy priorities in relations with the EU.

Ambassador Chizhov also takes part in other official events—like the Third Investment Energy Summit, organized by *The Economist* on 29 May 2013, and the high-level conference 'What Future(s) for European Energy Governance?' organized by the College of Europe in Bruges on 24 April 2014—to present Russian views on energy cooperation. On 14 May 2014—only eight weeks after the annexation of Crimea—the Russian delegation, with Ambassador Chizhov, participated in the annual conference Russia–EU Energy Dialogue: Gas Aspect, organized by the Russian Gas Society and the European Gas Industry Union (Eurogas), where the future of Russia's gas cooperation with the EU was a main topic. In his speech,

³⁴ All information on Russian lobbying in the following paragraphs stems from the official website of the Permanent Mission at <https://russiaeu.ru/en>.

Ambassador Chizhov acknowledged that the situation in relations between Russia and the EU was very difficult and noted that the EU Commission had decided not to attend this event, which had otherwise served as an arena for discussing various aspects of Russia–EU energy cooperation. However, he praised EU Commissioner for Energy Günther Oettinger for not making energy cooperation a topic to be discussed in connection with the EU’s imposition of sanctions against Russia and expressed the hope that energy cooperation would not suffer as a consequence of the events in Ukraine. Later, speaking at the conference ‘EU and Russia: what is the new reality?’ organized in Brussels on 6 October 2016, Ambassador Chizhov identified ‘the Ukrainian conundrum’ as standing firmly in the way of normalization of relations between Russia and the EU—in his opinion, these should be based ‘on a new model of relations, built on a more sober, pragmatic and equal basis’. Here he specifically noted energy cooperation as one of the areas where cooperation had been successfully restored.

Russian representatives take also part in meetings of other bodies working on energy-related questions to convey Russia’s message on energy. For instance, in June 2014 Teodor Shtilkind—Adviser to the Minister of Energy of the Russian Federation and Director for Cooperation with the EU of the Russian Energy Agency—attended several meetings organized by the Energy Charter Secretariat. On 12 September 2015, Russian Minister of Energy Alexander Novak and Gazprom CEO Alexei Miller had the opportunity to discuss energy cooperation directly with Maroš Šefčovič when they met in Vienna.

Ambassador Chizhov also uses various media channels—like interviews with Russia Direct (6 June 2016) and with EURACTIV (5 October 2016)—to present Russian views on relations with the EU, including the question of energy cooperation.

On 22 April 2015, the website of the Permanent Mission wrote of the EU’s use of legal instruments against Russia—in this case Gazprom—reacting to the press release stating that the Commission had sent Gazprom a ‘Statement of Objections’ in connection with the ongoing antitrust investigation into Gazprom’s business practices in the EU. Two years later, in March 2017, Ambassador Chizhov used an interview with EURACTIV to praise Commissioner Vestager for putting an end to the ‘Gazprom probe’ while also underlining that this decision concerned not Russia but Gazprom, a company that was conducting its own business with the Commission, while the Permanent Mission maintained contacts with the Commission on a broader range of energy issues.

It seems that these and other lobbying efforts have brought some positive results, from the point of view of Russian energy suppliers. On 28 March 2017, Ambassador Chizhov presented a list of four EU energy-related decisions that he deemed reasonable. First, the EU had allowed Russia to build the two new blocks of the Paks Nuclear Power Plant in Hungary. Second, the EU had awarded Gazprom the right to use more than 50 per cent of the OPAL pipeline. Third, the EU had accepted Gazprom's pledge to end the monopolist practices of which the company had been accused in the EU probe launched in 2012. Fourth, the German regulator Bundesnetzagentur, in replying to the European Commission concerning the regulatory regime for the Nord Stream 2 pipeline, had concluded that offshore pipelines from third countries to the EU should not be subject to the provisions of the Third Energy Package, including rules for unbundling.

Russia seems set to remain an important supplier of energy to the EU also in the future. However, the fate of Nord Stream 2—which officially Russia and its cooperation partners in the EU consider a commercial project, whereas several member states and parts of the EU bureaucracy view it as a political undertaking (Lang & Westphal, 2017)—is unsure, and the overriding problem in EU–Russia relations, the question of Russia's approach to the crisis in Ukraine, has not disappeared. For all these reasons, as well as the possibility of future challenges, Russia must continue to keep its channels of influence in the EU open. This brief survey of what can be learnt about Russia's tools of influencing EU energy policy, based on official information provided by the Permanent Mission of Russia and other sources, does not exhaust the topic but should provide some relevant insights.

CONCLUSIONS

This chapter has shown how Norway and Russia use various types of policy instruments to influence EU decisions in the field of energy. However, investigating the corporate practices and more informal ways of influencing EU energy policies poses a greater challenge, due to the higher level of opaqueness. Recently published reports make it clear that, although much lobbying activity focuses on the use of communicative instruments and takes the form of direct communication (through public hearings during consultation processes, formal meetings with decision-makers or access to close contacts), actors seeking to influence the EU have also used

more sophisticated and indirect lobbying techniques—like mobilizing the public through advertisements, conducting public relations campaigns, funding advocacy organizations or think-tanks and the use of grassroots campaigns. Moreover, much lobbying in the EU is not visible to the public eye but takes place outside the formal channels, drawing on informal relationships and a range of social interactions (Transparency International, 2015). A clear illustration of this type of lobbying can be found in the ongoing debate on the Nord Stream 2 project: in addition to active use of various social media, the company involved in this undertaking seems to have established a network of apparently independent actors that support its plans by presenting its positive aspects and under-communicating its possible negative implications (Barnes, 2017).

A further interesting aspect is the establishment of ad hoc formal and informal coalitions lobbying in the EU system (Pijnenburg, 1998). For instance, Russia and Norway, as key external suppliers of gas to Europe, may share this interest in gas with European actors who need access to gas to be able to continue their business activities. The fact that, only few weeks after the annexation of Crimea, the Russian Gas Society and the European Gas Industry Union (Eurogas) co-organized a meeting in Brussels at which Russia's top diplomat in Brussels could present his views on the future of EU–Russia cooperation is a clear example of how such ad hoc coalitions can be used at critical junctures.

What also deserves closer scrutiny in the context of energy policy-making is how various actors seeking to influence energy policy in the EU employ 'noisy' versus 'quiet' lobbying strategies (Keller, 2016) and the importance of corporate access to policy-making structures (Bouwen, 2002, 2004; Nørgaard, Nedergaard, & Blom-Hansen, 2014; Rasmussen, 2015) in this process.

It seems that the success or failure of the lobbying activities is heavily dependent on the structural factors that influence the policy choices of external suppliers, member states and the EU as such. Both Russia and Norway have competitive advantages they can use to promote their energy interests in the EU and disadvantages that can be downplayed in their communications with EU policy-makers.

Russia's lobbying in the EU is facilitated by structural factors like its abundant resource endowment, existing infrastructure and high reliability—with some crucial exceptions, like the gas conflicts with Ukraine in 2006 and 2009—and the EU's political interest in maintaining relations with Russia as an important regional and global political player

with a promising market. However, there are fears that Russia might use its energy for political leverage; we can also note Russia's revisionist foreign and security policies and the EU's need for further diversification of energy supplies as well as concerns for climate change and the long-term effects of the use of fossil fuels supplied by Russia and other internal and external sources. It is therefore understandable that Russian lobbying efforts in the EU focus on playing up Russia's energy strengths—presenting the country as an almost indispensable energy power (Hill, 2004)—while downplaying the possible risks faced by those overly dependent on energy coming from Russia.

Norway, as an external supplier of fossil fuels to the EU, faces at least some similar challenges, not least as regards the environmental effects of the use of fossil fuels. Another long-term energy-related concern and disadvantage is possible resource scarcity. After peaking around 2001, Norwegian oil production has been almost halved since; at some stage this will happen to gas production as well.

However, these long-term concerns are outweighed by the fact that Norway is viewed by both the EU and its member states as a predictable and unproblematic energy supplier, with well-developed transport infrastructure linking the fields with markets directly without entailing transit-related risks. Moreover, Norway shares norms and values, as well as strategic security interests, with all its key European energy customers—and, unlike Russia, Norway also has other 'energy cards' that can be played. As discussed in detail in Chap. 4 of this volume, the most significant of these are its huge hydropower resources that are increasingly recognized as pivotal to the development of a more balanced and greener European energy system.

REFERENCES

- Andersen, S. S., Goldthau, A., & Sitter, N. (2015). The EU Regulatory State, Commission Leadership and External Energy Governance. In J. M. Godzimirski (Ed.), *EU Leadership in Energy and Environmental Governance? Global and Local Challenges and Responses* (pp. 51–68). Basingstoke, UK/New York: Palgrave Macmillan.
- Barnes, A. (2017). Nord Stream 2. Friend or Enemy of Energy Security in Europe?. *CEPS Policy Insights* 46/2017. Brussels. https://www.ceps.eu/system/files/PI2017_46_Barnes_NordStream2.pdf
- Bayne, N., & Woolcock, S. (Eds.). (2007). *The New Economic Diplomacy. Decision-Making and Negotiation in International Economic Relations*. Aldershot/Burlington, VT: Ashgate.

- Bergesen, E. (2012, February 17). Mindre Åpenhet, Mindre Demokrati. *Dagbladet*. <https://www.dagbladet.no/kultur/mindre-aringpenhet-mindre-demokrati/63376075>. Accessed 20 Dec 2017.
- Berkhout, J., Carroll, B. J., Braun, C., Chalmers, A. W., Destrooper, T., Lowery, D., et al. (2015). Interest Organizations Across Economic Sectors: Explaining Interest Group Density in the European Union. *Journal of European Public Policy*, 22(4), 462–480. <https://doi.org/10.1080/13501763.2015.1008549>.
- Birchfield, V. L., & Duffield, J. S. (Eds.). (2011). *Toward a Common European Union Energy Policy. Problems, Progress, and Prospects*. London/New York: Palgrave Macmillan.
- Boussena, S., & Locatelli, C. (2017). Gazprom and the Complexity of the EU Gas Market: A Strategy to Define. *Post-Communist Economics*, 29(4), 549–564. <https://doi.org/10.1080/14631377.2017.1349667>.
- Bouwen, P. (2002). Corporate Lobbying in the European Union: The Logic of Access. *Journal of European Public Policy*, 9(3), 365–390. doi:<https://doi.org/10.1080/13501760210138796>
- Bouwen, P. (2004). The Logic of Access to the European Parliament: Business Lobbying in the Committee on Economic and Monetary Affairs. *JCMS: Journal of Common Market Studies*, 42(3), 473–495. <https://doi.org/10.1111/j.0021-9886.2004.00515.x>.
- Buchan, D. (2014). Energy Policy: Sharp Challenges and Rising Ambitions. In H. Wallace, M. A. Pollack, & A. R. Young (Eds.), *Policy-Making in the European Union* (pp. 344–366). Oxford, UK: Oxford University Press.
- Buchan, D., & Keay, M. (2016a). EU Energy Policy – 4th Time Lucky? *Oxford Energy Comment*. Oxford, UK: The Oxford Institute for Energy Studies. <https://www.oxfordenergy.org/wpcms/wp-content/uploads/2016/12/EU-energy-policy-4th-time-lucky.pdf>.
- Buchan, D., & Keay, M. (2016b). *Europe's Long Energy Journey – Towards an Energy Union*. Oxford, UK: Oxford University Press.
- Carammia, M., Princen, S., & Timmermans, A. (2016). From Summitry to EU Government: An Agenda Formation Perspective on the European Council. *Journal of Common Market Studies*, 54(4), 809–825.
- Chun, H. C. (2009). Russia's Energy Diplomacy toward Europe and Northeast Asia: A Comparative Study. *Asia Europe Journal*, 7(2), 327–343. <https://doi.org/10.1007/s10308-008-0206-y>.
- Conley, H. A., Mina, J., Stefanov, R., & Vladimirov, M. (2016). *The Kremlin Playbook. Understanding Russian Influence in Central and Eastern Europe*. Washington, DC/Lanham, MD: CSIS and CSD and Rowman & Littlefield.
- Eberlein, B. (2010). Experimentalist Governance in the European Energy Sector. In C. F. Sabel & J. Zeitlin (Eds.), *Experimentalist Governance in the European Union: Towards a New Architecture* (pp. 61–78). Oxford, UK: Oxford University Press.

- Eberlein, B. (2012). Inching Towards a Common Energy Policy: Entrepreneurship, Incrementalism, and Windows of Opportunity. In J. Richardson (Ed.), *Constructing a Policy-Making State?: Policy Dynamics in the EU* (pp. 147–169). Oxford, UK: Oxford University Press.
- Egmond, C., Jonkers, R., & Kok, G. (2006). One Size Fits All? Policy Instruments Should Fit the Segments of Target Groups. *Energy Policy*, 34(18), 3464–3474.
- Elmes, D. (2012). Governments, Policies and Companies: A Business Perspective. In C. Kuzemko, A. Goldthau, A. V. Belyi, & M. F. Keating (Eds.), *Dynamics of Energy Governance in Europe and Russia* (pp. 243–264). Houndmills, Basingstoke/New York: Palgrave Macmillan.
- European Commission. (2011). *EU-Russia Energy Dialogue. The First Ten Years: 2000–2010*. http://ec.europa.eu/energy/publications/doc/2011_eu-russia_energy_relations.pdf
- European Commission. (2017). *EU Energy in Figures. Statistical Pocketbook 2017*. Brussels: European Commission.
- European Union. (2017, updated continuously). *Transparency Register. Transparency and the EU*. <http://ec.europa.eu/transparencyregister/public/homePage.do>. Accessed 15 Dec 2017.
- Fostervold, K. (2014). Perspectives on German-Norwegian Energy Cooperation. *Presentation at 18 German Norwegian Energy Forum on 24 October 2014*. Oslo, Norway: Innovasjon Norge.
- Freeman, E., & Reed, D. (2004 [1982]). Stockholders and Stakeholders: A New Perspective on Corporate Governance. In B. D. Wit & R. Meyer (Eds.), *Strategy—Process, Content, Context: An International Perspective* (pp. 616–621). London: Thomson.
- Godzimirski, J. M. (2011). Nord Stream: Globalization in the Pipeline. In E. W. Rowe & J. Wilhelmsen (Eds.), *Russia's Encounter with Globalization: Actors, Processes and Critical Moments* (pp. 159–184). Basingstoke, UK/New York: Palgrave Macmillan.
- Godzimirski, J. M. (2014). Mapping EU Countries' Relationships with Energy Suppliers. *GR:EEN Policy Brief*. University of Warwick. http://www2.warwick.ac.uk/fac/soc/csgr/green/papers/policybriefs/green_policy_brief_godzimirski_eu_countries_relations_with_energy_suppliers_final.pdf
- Godzimirski, J. M. (2015a). Norwegian Gas in Europe: Part of a Solution or Part of a Problem? *BSR Policy Briefing*, (1), 105–117.
- Godzimirski, J. M. (2015b). Russia–EU Energy Relations: From Complementarity to Distrust? In J. M. Godzimirski (Ed.), *EU Leadership in Energy and Environmental Governance? Global and Local Challenges and Responses* (pp. 89–112). Basingstoke, UK/New York: Palgrave Macmillan.
- Godzimirski, J. M. (2015c). *EU Leadership in Energy and Environmental Governance: Global and Local Challenges and Responses*. Basingstoke, UK/New York: Palgrave Macmillan.

- Godzimirski, J. M., & Demakova, E. (2012). Russian External Energy Strategy: Opportunities and Constraints. In C. Kuzemko, A. Belyi, A. Goldthau and M. Keating (Eds.), *Dynamics of Energy Governance in Europe and Russia* (pp. 149–168). London: Palgrave Macmillan.
- Godzimirski, J. M., & Nowak, Z. (2018). EU Gas Supply Security: The Power of the Importer. In K. Szulecki (Ed.), *Energy Security in Europe. Divergent Perceptions and Policy Challenges* (pp. 221–249). London/New York: Palgrave Macmillan.
- Godzimirski, J. M., Vilpišauskas, R., & Švedas, R. (2015). *Energy Security in the Baltic Sea Region: Regional Coordination and Management of Interdependencies*. Vilnius: Vilnius University Press.
- Goldthau, A. (2010). Energy Diplomacy in Trade and Investment of Oil and Gas. In A. Goldthau & J. M. Witte (Eds.), *Global Energy Governance: The New Rules of the Game* (pp. 25–47). Berlin, Germany/Washington, DC: Global Public Policy Institute/Brookings Institution Press.
- Greenwood, J. (2014). The Regional Offices in Brussels: From Push and Pull to People and Place. *Regions & Cohesion*, 4(3), 1–16.
- Greenwood, J. (2017). *Interest Representation in the European Union*. London: Palgrave Macmillan.
- Grigoriev, L., Golyashev, A., & Analiticheskii tsentr pri pravitelstve Rossiyskoy Federatsii. (2016). Razvitiye Konkurentsii Na Gazovyykh Rynkakh. *Energeticheskii byulletin*. Moscow: Analiticheskii tsentr pri pravitelstve Rossiyskoy Federatsii. <http://ac.gov.ru/files/publication/a/9458.pdf>
- Gullberg, A. T. (2013). Pressure or Information? Lobbying for Binding Renewable Energy Targets in the European Union. *ROPR Review of Policy Research*, 30(6), 611–628.
- Gullberg, A. T. (2015). Lobbying in Oslo or in Brussels? The Case of a European Economic Area Country. *Journal of European Public Policy*, 22(10), 1531–1550. <https://doi.org/10.1080/13501763.2015.1025092>.
- Henderson, J., & Moe, A. (2016). Gazprom's LNG Offensive: A Demonstration of Monopoly Strength or Impetus for Russian Gas Sector Reform? *Post-Communist Economies*, 28(3), 281–299. <https://doi.org/10.1080/14631377.2016.1203206>.
- Herranz-Surrallés, A. (2016). An Emerging EU Energy Diplomacy? Discursive Shifts, Enduring Practices. *Journal of European Public Policy*, 23(9), 1386–1405. <https://doi.org/10.1080/13501763.2015.1083044>.
- Hill, F. (2004). *Energy Empire: Oil, Gas and Russia's Revival*. London: The Foreign Policy Centre.
- Hodne, T. E. (2014). Interconnecting Germany and Norway: Nordlink in the Context of Energy Security. *Presentation at 18th German Norwegian Energy Forum on 23 October 2014*. Innovasjon Norge.
- Høvsgaard, J. (2017). *Spionerne Der Kom Ind Med Varmen (Spies Who Came with Heat)*. Copenhagen: Gyldendal.

- Innovasjon Norge. (2017). *German Norwegian Energy Forum*. <http://www.innovasjon Norge.no/no/Kontorer-i-utlandet/tyskland/German-Norwegian-Energy-Forum/>. Accessed 20 Dec 2017.
- James A. Baker III Institute for Public Policy. (2007). *The Changing Role of National Oil Companies in International Energy Markets*. Houston, TX: James A. Baker III Institute for Public Policy of Rice University. <https://www.bakerinstitute.org/events/1301/>. Accessed 17 Dec 2017.
- James, J. (2017, January 26). *Interview: Statoil's Anders Marvik on Geopolitical Risk and the Energy Industry in 2017*. <https://dev.geopoliticalmonitor.com/interview-statoils-anders-marvik-on-geopolitical-risk-and-the-energy-industry/>. Accessed 17 Dec 2017.
- Kardaś, S. (2016). The Twilight of the Oil Eldorado. How the Activity of Russian Oil Companies on the EU Market Has Evolved. In *OSW Studies*. Warsaw, Poland: OSW. https://www.osw.waw.pl/sites/default/files/prace_55_ang_eldorado_net.pdf
- Kardaś, S. (2017). At Crossroads. Current Problems of Russia's Gas Sector. *OSW Studies*. Warsaw, Poland: OSW. https://www.osw.waw.pl/sites/default/files/prace_63_ang_at-crossroads_net.pdf
- Keller, E. (2016). Noisy Business Politics: Lobbying Strategies and Business Influence after the Financial Crisis. *Journal of European Public Policy*, 1–20. <https://doi.org/10.1080/13501763.2016.1249013>.
- Knodt, M., Greenwood, J., & Quittkat, C. (2011). Territorial and Functional Interest Representation in EU Governance. *Journal of European Integration*, 33(4), 349–367.
- Koj, A. A. (2017, March 30). *Ears' Interview with Anders Marvik, VP for European Political and Public Affairs at Statoil*. <https://www.linkedin.com/pulse/ears-interview-anders-marvik-vp-european-political-public-koj/>. Accessed 20 Dec 2017.
- Kuzemko, C., & Hadfield, A. (2015). Defining and Projecting EU Energy Policy. In J. M. Godzimirski (Ed.), *EU Leadership in Energy and Environmental Governance? Global and Local Challenges and Responses* (pp. 21–50). Basingstoke, UK/New York: Palgrave Macmillan.
- Lang, K.-O., & Westphal, K. (2017). Nord Stream 2 – A Political and Economic Contextualisation. In *SWP Research Paper*. Berlin, Germany: SWP. https://www.swp-berlin.org/fileadmin/contents/products/research_papers/2017RP03_lng_wep.pdf.
- Larsson, R. (2006). Russia's Energy Policy: Security Dimensions and Russia's Reliability as an Energy Supplier. In *FOI Scientific Report*. Stockholm, Sweden: FOI – Swedish Defence Research Agency.
- Lien, T. (2016). *Speech at the 3rd EU-Norway Energy Conference in Brussels on 5 February 2016*. <https://www.regjeringen.no/no/aktuelt/tale-i-anledning-energikonferanse-arrangert-av-europakommisjonen-og-olje--og-energidepartementet-av/id2474453/>. Accessed 20 Dec 2017.

- LobbyFacts.eu. (2017a). *Overview at Lobbyfacts.Eu*. <https://lobbyfacts.eu/representative/085864fc985b4bd5955d25b76b207942>. Accessed 19 Dec 2017.
- LobbyFacts.eu. (2017b). *Statoil at Lobbyfacts.Eu*. <https://lobbyfacts.eu/representative/e51de06c03384f3291e5afedb3c97216/statoil-asa>. Accessed 19 Dec 2017.
- Matlary, J. H. (1997). *Energy Policy in the European Union*. New York: St. Martin's Press.
- Migunov, D., & Kogan, G. (2017, June 30). *Velikaya Gazovaya Revolyutsiya. Kak Energeticheskaya Reforma Trampa Udarit Po Pozitsiyam Rossii*. <https://lenta.ru/articles/2017/06/30/vivalagas/>. Accessed 30 June 2017.
- Ministry of Foreign Affairs Norway. (2012). Utenfor Og Innenfor: Norges Avtaler Med Eu (Outside and Inside: Norway's Agreements with the EU). In *NOU: Vol. NOU 2012:2*. Oslo, Norway: Ministry of Foreign Affairs Norway. <http://www.regjeringen.no/pages/36797426/PDFS/NOU201220120002000DDDPDFS.pdf>
- Ministry of Petroleum and Energy Norway. (2014, September 25). *2nd EU-Norway Energy Conference*. <https://www.regjeringen.no/no/aktuelt/2nd-EU-Norway-Energy-Conference/id2001528/>. Accessed 20 Dec 2017.
- Nørgaard, R. W., Nedergaard, P., & Blom-Hansen, J. (2014). Lobbying in the EU Comitology System. *Journal of European Integration*, 36(5), 491–507. <https://doi.org/10.1080/07036337.2014.889128>.
- Norway and the EU. Mission of Norway to the EU. (2017). *Staff List*. <https://www.norway.no/en/missions/eu/about-the-mission/about-/>. Accessed 17 Dec 2017.
- O'Sullivan, M., Overland, I., & Sandalow, D. (2017). The Geopolitics of Renewable Energy. In *Working Paper*. New York/Cambridge, MA/Oslo, Norway: Columbia University Press/Harvard Kennedy School/NUPI. <https://research.hks.harvard.edu/publications/getFile.aspx?Id=1554>
- Ortting, R. W., & Overland, I. (2011). A Limited Toolbox: Explaining the Constraints on Russia's Foreign Energy Policy. *Journal of Eurasian Studies*, 2(1), 74–85.
- Permanent Mission of the Russian Federation to the European Union. (2017a, NA). *Diplomatic Staff*. <https://russiaeu.ru/en/diplomatic-staff>. Accessed 17 Dec 2017.
- Permanent Mission of the Russian Federation to the European Union. (2017b, NA). *Energy Cooperation and Security*. <https://russiaeu.ru/en/energy-cooperation-and-security>. Accessed 17 Dec 2017.
- Pijnenburg, B. (1998). EU Lobbying by Ad Hoc Coalitions: An Exploratory Case Study. *Journal of European Public Policy*, 5(2), 303–321. <https://doi.org/10.1080/135017698344009>.
- Pollak, J., Schubert, S., & Kreutler, M. (2016). *Energy Policy of the European Union*. London/New York: Palgrave Macmillan.

- Princen, S. (2012). Agenda-Setting and the Formation of an EU Policy-Making State. In J. Richardson (Ed.), *Constructing a Policy-Making State?: Policy Dynamics in the EU* (pp. 29–45). Oxford, UK: Oxford University Press.
- Rasmussen, M. K. (2015). The Battle for Influence: The Politics of Business Lobbying in the European Parliament. *JCMS: Journal of Common Market Studies*, 53(2), 365–382. <https://doi.org/10.1111/jcms.12156>.
- Richardson, J. (Ed.). (2012). *Constructing a Policy-Making State? Policy Dynamics in the EU*. Oxford, UK: Oxford University Press.
- Rolle, C. (2017). *A Global Outlook on Natural Gas Presentation at 21st Annual German Norwegian Energy Forum*. Berlin, Germany: World Energy Council.
- Scholten, D., & Bosman, R. (2016). The Geopolitics of Renewables; Exploring the Political Implications of Renewable Energy Systems. *Technological Forecasting and Social Change*, 103(Supplement C), 273–283. <https://doi.org/10.1016/j.techfore.2015.10.014>.
- Slobodian, N. (2017). *Russian Energy Diplomacy: Instruments and Approaches*. Warsaw, Poland: The Casimir Pulaski Foundation. <https://pulaski.pl/en/analysis-russian-energy-diplomacy-instruments-and-approaches/>
- Stoddard, E. (2017). Tough Times, Shifting Roles: Examining the EU's Commercial Diplomacy in Foreign Energy Markets. *Journal of European Public Policy*, 24(7), 1048–1068. <https://doi.org/10.1080/13501763.2016.1170190>.
- Szulecki, K., Fischer, S., Gullberg, A. T., & Sartor, O. (2016). Shaping the 'Energy Union': Between National Positions and Governance Innovation in EU Energy and Climate Policy. *Climate Policy*, 16(5), 548–567. <https://doi.org/10.1080/14693062.2015.1135100>.
- Talseth, L. C. U. (2012). *The EU-Russia Energy Dialogue. Travelling without Moving*. http://www.swp-berlin.org/fileadmin/contents/products/arbeitspapiere/talseth_20120402_KS.pdf.
- Transparency International. (2015). *Lobbying in Europe: Hidden Influence, Privileged Access*. Berlin, Germany: Transparency International. http://files.transparency.org/content/download/1909/12646/file/2015_LobbyingInEurope_EN.pdf
- Transparency International Russia. (2017). *Russian Corporate Lobbyism in the Countries of the European Union. A Research Report by Transparency International Russia*. Moscow, Russia: Transparency International Russia.
- Zhiznin, S. (2012). Russian Energy Diplomacy and the Modernization of Its Fuel and Energy Complex. *International Affairs. A Russian Journal of World Politics, Diplomacy and International Relations*, 58(3), 87–103.



Norway: Small State in the Great European Energy Game

Ole Gunnar Austvik

INTRODUCTION

Focusing on natural gas, this chapter discusses the scale and scope of the room for political manoeuvre in the energy sector for Norway as member of the EU Single Market (SM). In the 1990s, the Norwegian energy sector was under strong political control. Norway signed the European Economic Area (EEA) Agreement, which entered into force in 1994 and has regulated Norway's relations with the EU after the country decided to reject membership in a referendum in the same year. The Norwegian state was at that time engaged in the energy sector as owner and producer and as a leader of change and development. With its political power, the state could define social goals for the industry and use regulative, legal and

Thanks to Peter Arbo, Jakub M. Godzimirski, Kristin Haugevik, Indra Øverland and the rest of the EUNOR group at NUPI for helpful comments to the manuscript. Thanks also to Susan Høivik for language editing. Any remaining errors are the sole responsibility of the author.

O. G. Austvik (✉)
Norway University, Lillehammer, Norway
e-mail: ole.gunnar.austvik@kaldor.no

political measures as a managerial package for achieving these goals. The EEA Agreement made Norway a full participant in the SM in all areas except agriculture and fishery. SM liberal restructuration processes included the energy sector, and special focus was placed upon directives for electricity and natural gas markets and on the application of EU competition law. Norway is a seller of energy—EU countries are buyers. EU energy policy aims at benefiting the whole EEA area, not single member states only—and that poses a double challenge to Norway as an energy-producing and energy-exporting country seeking to pursue its own energy goals while also having to follow EU-imposed rules and regulatory obligations. The Norwegian state activist model was put under strong pressure. Liberal ideological principles for economic activity were promoted, with a concomitant influence on Norwegian norms, institutions and law. Together with simultaneous industrial and market maturity, the EEA Agreement contributed to changing the Norwegian energy model by removing opportunities for policy-making but also creating new policy.

Energy is a strategic sector for most countries and attracts more political attention than most other economic activities, whether in Norway, the EU or elsewhere (O’Sullivan, 2013). Energy-dependent importers—and since 2013 all EU member states belong to this category—are concerned with security of energy supply (preferably at low prices and with easy access), whereas producers like Norway are concerned with security of demand (preferably high prices and easy access to markets). In dealing with the interdependency between exporters and importers, the EU applies the same market principles, rules and regulations to reach its strategic external energy goals as in its internal market rather than bilateral sector-adjusted negotiations. Norway, like most other energy producers, has been far more interventionist in its internal as well as its external energy policy.

How has small-state Norway managed to balance between the need to maintain nationally defined goals and the need to operate within the rule-based SM? Chapter 1 of this volume deals thoroughly with the issue of national political manoeuvring room for states—especially small states—in an international economic integration area, drawing on microeconomics, international trade, convergence and integration theories and the small-state literature. Therefore, the focus of this chapter is on how an activist Norwegian state managed to shape its energy sector and how this activist approach has been challenged by the EEA Agreement and EU energy policy and regulations. This chapter examines also how the Norwegian strategy has shifted from conflict to cooperation and innovative adaptation

to EU rules and regulations, through the process of Europeanization of Norwegian energy policy. In addition, Chap. 5 of this volume explores how Norway, a non-member without direct access to EU policy-making, may influence EU energy policy through various policy instruments, comparing the Norwegian approach with the more conflictual one adopted by Russia, the most important external supplier of energy to the EU.

THE NORWEGIAN ENERGY SECTOR: A NATIONAL PRIORITY

The politicization of energy markets results from the international nature of these industries, the huge sums involved, the strategic importance of resources and energy as input factor in the economies of importing and exporting countries alike, and the concerns for the environment and climate change. Governments have long had a dominant stake in national energy companies or have owned them directly. Many interventions and/or regulative arrangements have aimed at controlling the activities of state and private actors operating in this sector. After 1945, the world's seven largest oil companies (Exxon, Mobil, Chevron, Texaco, Gulf, Royal Dutch Shell and British Petroleum—the 'Seven Sisters' as the big international oil companies, IOCs, at the time) controlled most oil production in the new oil states of the Middle East and North Africa. The nationalization of the petroleum industries within the Organization of the Petroleum Exporting Countries (OPEC) in the 1970s challenged their dominant position and increased state participation (James A. Baker III Institute for Public Policy, 2007; Joffé, Stevens, George, Lux, & Searle, 2009; Marcel, 2006). The European gas crisis of the 1980s was as an important part of the Cold War and East–West relations. The Ukrainian gas crises of 2006 and 2009 put the issue of security of supply high on the EU agenda, and the 2014 Euromaidan protests and following conflict between Russia and Ukraine, an important transit country, made the issue even more burning.

In recent decades, climate and environmental concerns and the desire for a greener economy have added to the politicization of the energy sector, creating worldwide pressures and policies for improved energy efficiency, more renewable energy and less dependence on fossil sources (Heubaum & Biermann, 2015; Slominski, 2016; Youngs, 2013). The climate debate has added to the complexity of the energy industry: fossil energy still represents as much as 87 per cent of world energy usage (2016) and is the main source of global CO₂ emissions. Fossil energy use must be curbed—as made clear by the Kyoto 1997 and Paris 2015

Agreements and the max. 2 °C target for global climate policy—and renewable energy and energy savings encouraged. In the European context, EU's Energy Union proposal of 2016 addresses various critical issues that markets cannot solve themselves and that thus require political attention (Austvik, 2016, pp. 376–378).

Norway has been no exception in politically controlling and benefiting from its rich energy-resource endowment. In the electricity industry, the Norwegian state has had strong control and dominant ownership of the management of hydropower resources since the early 1900s. The Energy Act of 1990 resulted in a sweeping liberalization of the electricity market, in line with principles later introduced by the EU. However, almost 90 per cent of Norway's hydropower resources were still owned by the state, the counties or the local municipalities. Legislation was enacted, making the acquisition and lease of waterfalls subject to concessions granted for between 60 and 80 years, after which power plants and all rights revert to the state (*Hjemfallsinstituttet*—the Reversion Institute). When petroleum was discovered in Norwegian territorial waters in the late 1960s, Norway was among the non-OPEC states that wanted to control the revenues, production and management of what was considered a new and potentially economically and politically dominant industry for the country. Long cross-party social-democratic traditions of strong state participation in the hydropower sector as well as in many other economic activities made it possible to formulate consensus-oriented visions and policy goals for an independent Norwegian petroleum administration and industry, with the Norwegian state at the helm to achieve its social goals. The slogan was that oil and gas activities should 'benefit the whole nation'. Together with the development of international law of the seas since the 1960s, Norwegian sovereignty was put at the fore, as expressed in the ten commandments of 1971 (Austvik, 2012).

Petroleum policies included preferential treatment of and regulations favourable to Norwegian companies and the state, together with a strong fiscal regime to ensure that the state received most of the economic rent—and, hence, more revenues from the energy sector than from any other sector. An important element in this 'model' was the establishment of a state-owned oil company, Statoil. At that time, neither the Norwegian state nor Statoil or other Norwegian companies had sufficient expertise to develop petroleum activities on their own. Norway needed to draw on international companies, for their capital as well as their know-how—but it also embarked on an active approach to build own expertise because, as one

Norwegian oil boss put it: ‘you can’t learn to drive by sitting in the back seat’ (Ask, 2006). Companies that were allowed to take part in the development of Norwegian energy resources were selected on the basis of their geological and technological expertise, financial strength and previous experience, intended to be shared. The value of each licence would thus be maximized. The licences also acted as a controlling system, as each company had an interest in ensuring that the work of the chosen operator was undertaken in the most cost-effective way (Ministry of Petroleum and Energy annual). All taxes went to the state, except for local property taxes for terminals built onshore. The Ministry of Finance (FIN) introduced a special tax on petroleum activities to capture most of the rent. Later arrangements with the State’s Direct Financial Interest (SDFI) system ensured that the entire rent from these shares went to the state.¹

Initially, Statoil implemented policy together with the Ministry of Petroleum and Energy (MPE). Later, the MPE’s direct engagement was expanded, and ownership of Statoil’s oil and gas fields was split, with a larger share going to the SDFI and a smaller one to Statoil. The SDFI invested state budget money directly in the main production fields. Forsyningsutvalget (FU, the Supply Committee) and Gassforhandlingsutvalget (GFU, the Gas Negotiation Committee), supervised directly by the MPE, replaced and supplemented important Statoil policy functions in the gas sector. The GFU was a Norwegian sales monopoly for gas; the FU served as coordinator for gas production and transportation across fields and pipelines. Together, the GFU/FU system, SDFI ownership and Statoil, all under MPE control, represented a ‘Norwegian gas factory’ where national policy instruments made it possible to achieve lower costs through economies of scope, better resource management and a strengthened market position (Austvik, 2012, pp. 316–319). The Petroleum Fund, established in 1991 and invested entirely abroad, ensured that annual state budgets were no longer directly influenced by fluctuations in oil and gas revenues. With the Fund in place, Norway could increase production with less concern over its effects on the domestic economy. In 2018, the value of the Fund stood above €800 billion, the biggest Sovereign Wealth Fund (SWF) in

¹ In Norway, power plants pay a 34.3 per cent special tax in addition to the regular company tax of 24 per cent (total 58.3 per cent of company profit). Petroleum companies pay a 54 per cent special tax in addition to the regular company tax of 24 per cent (total 78 per cent of company profit). Special depreciation rules apply. For the SDFI, the government pays 100 per cent of its share of investments and operating costs in a field and also takes 100 per cent of its share of the profits.

the world, making the Norwegian state the richest in the world in per capita terms. The de facto removal of production restraints increased the domestic room for manoeuvre for greater oil and gas production, as well as for consumer countries to pressure Norway for higher production. This meant that the win-set for Norway was expanded; with the Fund in place, it became more difficult for Norway to withstand pressures for increased production, for example, from the EU.

Government policy and industrial structures changed as the industry matured. Markets, the international situation and technology changed, and the industry expanded beyond the Norwegian continental shelf (NCS) as an export industry (Austvik, 2012, pp. 322–324). The domestic depoliticization of the sector came gradually, culminating with Statoil's self-initiated privatization in 2001, with the state still holding two-thirds of the shares, simultaneously with EU requirements for regulative change. The coupling between structural changes in the Norwegian petroleum industry, the changed role and maturity of Statoil and the establishment of the Petroleum Fund are important for understanding why the depoliticization of policy and adjusting to an increasingly more liberal economic model took place. With the alliance with British Petroleum in 1989, Statoil also started to internationalize, expanding into, inter alia, Angola and Azerbaijan. Scaling down the role of the state to that of a regulator of petroleum activities, an actor no longer as strong an industrial participant as before, was encouraged. However, the Norwegian state remained at the helm and continued to reap most of the profits from petroleum activities, encountering little domestic political opposition.

This establishment phase, marked by strong state entrepreneurship, represented a radical innovation. The Norwegian model was a mixture between a strong state and private companies and differed from how the petroleum sector was organized in other countries. Although state control was essential to this model, it diverged from models of nationalized oil industries elsewhere, as private companies were invited as partners to acquire capital, expertise and technology to Norwegian actors operating in the nascent energy sector. The model was not an imitation of other countries' practices but an innovation in itself, combining state control with market principles. The innovative solution in-between complete nationalization (as in most OPEC countries) and free-market principles (as in the USA) was unique at the time. Starting from scratch, the state built a new company (Statoil) and protected the Norwegian supply industry by coupling it with international companies. The system of companies, institutions, regulations and politics

was intended to provide a ‘Porterian’ type of dynamisms in the national petroleum cluster. However, direct interventions went far beyond Porter-type policy. The special Norwegian approach was based on a strong desire to control the value chain from the reservoirs and as far as possible onwards to consumers. In practice, this basically meant to the borders of downstream importing countries for natural gas and from export terminals (platform or onshore) for crude oil. Most of these measures were in direct or indirect conflict with the underlying principles for a liberal rule-based SM, in the EU.

THE EEA AGREEMENT AND EU ENERGY POLICY

The EEA Agreement was signed by Norway in 1992 and became operative on 1 January 1994. The European Free Trade Association (EFTA) Surveillance Authority (ESA) was set up to fill the control function towards EFTA participants in the EEA (today only Liechtenstein and Iceland, in addition to Norway), similar to the control function of the EU Commission in relation to EU member countries. From this point onwards, EU SM regulation and law also became Norwegian regulation and law. The EEA Agreement made it possible to participate in the SM in line with EU members. The main sectors exempted were agriculture and fishery. The EEA Agreement involved the transfer of sovereignty from the nation states to the ESA and the EFTA Court, but not formally to the EU, in a two-pillar structure. The three EFTA countries can become involved in preparing cases by participating in the EU committees that propose new rules or changes in rules—but, as the EFTA countries have no voting rights, it is the EU that makes the final decision: ‘The Agreement gives them the right to be consulted by the Commission during the formulation of Community legislation, but not the right to a voice in decision-making, which is reserved exclusively for Member States’ (European Union, 2007).

EFTA countries must accept a rule unanimously, which means that each country is entitled to reserve itself by vetoing against its implementation in the EEA Committee (Ministry of Foreign Affairs, Norway, 2002, p. 27). A ‘rule’ may be a regulation, directive, decision, recommendation or an opinion. While Norway has the right to reserve itself against the domestic implementation of, for example, an energy directive in Norway, it cannot veto its implementation in the EU area. General rules—for example, in the practice and application of competition law—cannot be vetoed, however,

and are dealt with by supranational organs such as the ESA and the EFTA Court (Graver, 2000). Thus far, no EFTA country has made use of this veto right. In case of a veto (reservation), the EU may decide to take the entire area in question out of the Agreement, with potentially substantial disadvantages for the EFTA members. The Agreement is dynamic in the sense that new rules for the SM are designed and applied across the entire EEA area. New subject areas can be introduced, and old ones can be taken out. With each EU expansion since 1992, the Agreement has been renegotiated—generally implying that EFTA countries have had to pay more for market access and financially support the poorest EU member states. ‘The EEA Agreement is a fragile construction which probably is more important for Norway and the other EFTA countries to keep alive than it is for the other signatories’ (Arnesen, 1995, p. 663, author’s translation). The three EEA states have taken on board some more than 8000 legal acts of the EU SM regime and implemented them into national law (Ministry of Foreign Affairs, Norway, 2012).

For many of the initial EEA signatories in the early 1990s, it became evident that the EEA Agreement would not be satisfactory, and they regarded it as a stepping stone to full EU membership rather than as a permanent alternative. Finland, Sweden and Austria joined the EU as full members in 1994, while Switzerland decided not to apply for EU membership or sign the EEA Agreement. Only Liechtenstein, Iceland and Norway remained. Given the passive character of the EEA Agreement, Norway’s influence on EU policy is more limited compared to that of the member states. This has also consequences for how Norway can pursue its energy interests in the EU (see Chap. 5 of this volume). As regards energy field, Norway is thus in a different situation than that of Europe’s (and the world’s) largest combined oil and natural gas exporter—Russia. Although Norway in general is a small state, it has long been the second largest gas supplier to the EU, after Russia. Besides being competitors, Norway and Russia share interests concerning developments on the natural gas market. Norway has an interest in what Russia does in its domestic energy sector, which is not regulated by the EU, as well as in Russia’s relations with the EU in this field. European integration processes, market liberalization and diverging economic interests between producers and consumers, especially as regards natural gas, have provided the Norwegian state with a unique dimension in its relations with Russia and with the EU.

Politically, the EEA Agreement, with its economic, legal and institutional conditions, has never really settled. EFTA lost much of its identity

with the Agreement, and the EU has evolved much faster in depth and breadth, within and outside EEA jurisdiction, than expected when the Agreement was drafted. In addition, the Agreement today covers substantially fewer countries than those that negotiated it. The reduction in the number of EFTA countries and the EU expansion to Central and Eastern Europe have made the EEA, in absolute and relative terms, a minor part of the EU's broader European agenda. The three EFTA states in the EEA (Norway, Iceland and Liechtenstein) and Switzerland have adopted thousands of rules and regulations and implemented them in national legislation. The EU has changed with the introduction of the monetary union and new competencies in foreign, security and defence policy, justice and home affairs. The EEA forum is not always the best place for dealing with the new policy areas with differing roles for the Commission, Parliament and the Council (Austvik & Claes, 2011, pp. 49–50). Also Norway must deal with new policy areas outside the EEA (e.g. Schengen) and has signed several other agreements with the EU after the EEA Agreement entered into force, to cover these realities (Ministry of Foreign Affairs, Norway, 2012).

While competitive principles and economic regulations of imperfect markets continue to make competition law fundamental for SM policy, policy development in the energy sector has been slow. The energy sector was excluded when the EU/EC introduced the Single European Act in 1985 as a foundation for the SM established in 1993. At the time, national interests and energy monopolies in member states were considered too strong to be coordinated into a common, integrated policy. In 1988 the EC Commission nevertheless proposed policies also for energy, in line with other sectors. These proposals were gradually pushed forward by general internal market processes. The idea of an integrated European energy system characterized by competition was the basis for the Commission's involvement, with corporate and national neutrality across the EU (Birchfield & Duffield, 2011; Buchan, 2014; Gouardères, 2016; Matlary, 1997; Pollak, Schubert, & Kreutler, 2016).

The First Energy Package (1998) allowed the opening of the electricity and gas markets, the gradual introduction of competition, and imposed broad unbundling requirements on integrated companies. The Second Energy Package (2003) focused on the concepts of unbundling and third-party access, TPA, defined the need for independent regulatory authorities and set deadlines for the liberalization of electricity and gas retail markets (2004 and 2007, respectively). With the Third Energy

Package, TEP (2008), more and other types of policies were added. The core elements of the TEP are ownership unbundling to separate companies' generation and sale operations from their transmission networks, the establishment of a national regulatory authority (NRA) for each member state and the establishment of an Agency for the Cooperation of Energy Regulators (ACER) to provide a forum for NRAs to work together (Eikeland, 2011). The TEP has yet to deliver fully, and a major aim of the later Energy Union (EU 2016) has become the realization of general EU energy and environmental policies established in the energy packages and environmental regulations (European Commission, 2017; Szulecki, Fischer, Gullberg, & Sartor, 2016).

Despite all efforts—and due to the mainly confederative structure of the EU and diverging national energy situations, political positions and interests—important energy policy decisions have often remained at national levels (Austvik, 2016, p. 378). Without greater EU power (federalism) accompanied by institutional and organizational change, stronger power and market tools, and financial strengthening, it will be difficult for the EU to design and implement a truly common energy policy. Moreover, in the natural gas sector, the EU lacks authority over the entire value chain (from producer to burner tip), in contrast to the USA and the UK after these countries liberalized/deregulated their energy markets. The EU has authority mostly over the downstream part of the market, whereas major upstream activity remains outside SM regulations, as exemplified in the ongoing debate on the future of the Nord Stream 2 pipeline and the possible application of EU regulations to this partly controversial project (Lang & Westphal, 2017; Lissek, 2016; Vihma & Wigell, 2016). In a situation where the EU is unable to speak and act as a unitary actor, the room for strategic and political manoeuvre for companies and countries on the national and EU levels may increase, supported by several downstream impediments on the continent compared to the purposes of the gas directives and EU competition law (Austvik, 2009). The regulations generally represent changes where 'fuzzy liberalization'—universal free-market rules that are open to a wide range of interpretations by governments, companies and the courts—is becoming the norm, even when there is broad agreement on liberal market principles (Andersen & Sitter, 2009). Regulatory innovation is gradually gaining recognition as an important tool used by the increasingly networked state (Black, Lodge, & Thatcher, 2006).

Accordingly, EU energy policy has largely remained focused on a non-politicized ‘markets and institutions’ approach rather than establishing a political ‘regions and empires’ view (Correlje & van der Linde, 2006), with a focus on realizing existing EU energy and environmental policies in a continued regulative manner. Implementation of the 2009 TEP and environmental policies has seen slow progress and partly renationalization rather than a common EU approach to energy and climate policy. The Energy Union proposals of the Eastern European member states (2014) and then the EU (2016) revealed conflicts of interest between the priorities of Western and Eastern European countries (Andersen, Goldthau, & Sitter, 2017; Austvik, 2016). For many countries in Central and Eastern Europe, the one-sided dependency on Russian gas is a security problem that tops the political agenda and is an important element in their relations with Russia. For EU members in the West, the problem of energy security is less acute. The question is still open whether the EU system, and member states in the East and the West, will be able to agree and *de facto* implement policies to reach internal and external goals. In the EU, when common principles are implemented in a non-politicized regulatory manner based on the open method of coordination (Eberlein, 2010; Sabel & Zeitlin, 2011, 2012; Zeitlin, 2016), the convergence pressure towards greater policy harmonization does not always result into the same policy. EU rules and regulations often become incorporated into national legislation only after long lead times; they may be nationally translated, interpreted and implemented in differing ways; and compensatory policies may be introduced when national interests diverge with the common policy goals set. Also the EU itself may come under pressure for change. Brexit and other EU internal tensions pose challenges not only to the unity of the EU: they may also force the EU to change its way of operating. That may in turn expand the political room for manoeuvre for members and non-members alike.

EU bilateral and geopolitical energy interests—such as political relations with Norway and Russia or how SM rules and regulation interact with these interests—are not addressed in the Energy Packages or in the Energy Union. Current court and arbitration cases between Gazprom and the EU concern basically the question of whether EU internal rules and regulations can be extended to areas beyond EU borders. The EU sees Russian gas policy mainly as a market failure (Austvik & Lembo, 2017). External dimensions of EU energy policy are dealt with only marginally in

the Common Foreign and Security Policy (CFSP) although member states and key external suppliers of energy often view them in security terms. Although energy security has gained importance in the CFSP, member states have often rejected any deepening of cooperation (Youngs, 2009, p. 4). When countries negotiate ‘tariffs, investments, rules of access etc., they are doing EU external energy policy but they do it on a national basis. It’s the case everywhere in EU’ (Renssen, 2015, interview with Jean Michel Glachant).

The external dimension of EU energy policy (discussed in detail in Chaps. 2, 3 and 4 of this volume) is viewed basically as the question of extending EU internal rules and regulations. It tends to deal only marginally with strategic questions, such as the future of EU relations with increasingly challenging Russia (Godzimirski, 2015) or the ‘hard security’ risks involved in the EU’s relations with suppliers in the Middle East and North Africa who have to deal with terrorism and intra-regional instability and conflicts. This lack of a holistic internal and external policy is reflected in the relationship between environmental concerns, climate change and market efficiency on the one side and foreign and security policy objectives on the other (Bressand, 2012).

Future developments in EU energy policy may follow the ‘normal’ path of EU integration conflicts: the Commission may compel member states to agree on it as a principle and then develop a pragmatic and non-politicized regulatory progress for its implementation. Member states may resist the convergence pressures and policy harmonization and try to meet the requirements formally but not in reality. Buchan and Keay (2016) argue that EU energy policy falls short of a comprehensive approach: it ‘appears as much about preventing the EU’s current 28 governments from sliding further backwards into national policies as about forward leaps in the Europeanisation of energy policy’. They see EU governance as inadequate and the Commission as reluctant to take a firm stance when faced with the Euroscepticism of some member state governments. As a result, only a few countries actually follow the rules fully, and one of those apparently close to the EU ideal is, paradoxically, a non-member and the second biggest supplier of energy to the EU—Norway. In the following section, we examine how Norway has become among the best students in the EU class in following the rules of the game defined by Brussels while largely maintaining its own defined national energy policy goals.

NORWAY AND THE EU: FROM CONFLICT TO COOPERATION AND INNOVATIVE ADAPTATION

The impact of the EEA Agreement on the Norwegian petroleum industry represents a broader political change. The Agreement aimed at bringing the petroleum sector more in line with how other sectors are managed politically. It was designed not to defend petroleum interests but the interests of the whole Norwegian economy. Strictly speaking, Norway did not need any EEA agreement to sell oil and gas to the EU, and hydropower was mostly for domestic purposes. It was the rest of the economy that has had major economic interests in securing market access and rules of fair competition. Besides EU competition law, the legal acts Norway had to adapt to were mostly directives requiring member states to achieve a specific result, without dictating how that result was to be achieved. Directives normally give member states some freedom to determine how to go about achieving results, as various legislative procedures may be used, depending on the subject (Archer, 2005; Claes & Tranøy, 1999).

Beyond the EU–Norway integration processes, several other factors have induced policy change, making the picture less clear and the possibility of measuring results more difficult. The ways in which Norway and what was to become the EU defined their interests and formulated their energy policies in the 1970s and 1980s were conditioned and affected by the internal and external economic and political factors and actors at the time. Gradually, and in some important cases radically, these factors have changed. With the 1991 collapse of the Soviet Union and the end of the bipolar world and diverging economic and political systems, the world became more economically and politically integrated. Political systems changed, and international affairs and trade relations became more globalized and fluid.

The factors were not only political. By the 1990s, neither EU energy markets nor the Norwegian petroleum industry were in their infancy, and new policies were needed for both. Another aspect was changes in the profitability of the petroleum industry, which, besides costs, depend heavily on the price of oil. Relatively low oil prices in the period 1986–2001 led to low attention to security-of-supply and competitiveness-related issues in the EU and elsewhere. Higher prices after 2001 have refocused attention to the profitability of the industry and long-term supply, as was also the case in the period 1973–1985. Higher prices bring more income

for producer countries and boost their influence while also providing incentives for the EU to think more comprehensively about its energy policy and the need to secure stable supplies of energy at prices that will not undermine its competitiveness.

Part of the challenge is to isolate the impacts of economic, political and regulatory integration processes on Norwegian policy from other forces and factors. In some situations, changes from one force can be discrete and substantial in scope and/or strength or induce dynamic processes for incremental change. In other situations, other forces may have stronger impact, with accompanying changed constraints and opportunities for action for the parties involved.

The first Norwegian adjustments to EU non-discriminatory competition principles came in the petroleum sector in the early 1990s, when the established preferential arrangements for Norwegian supplies were challenged. However, the EU Concession Directive (EU 1994) appeared rather uncontroversial for the industry. At the time, much of the supply industry had become competitive internationally, and the industry itself no longer saw continued domestic protection as an important issue—access to markets abroad was considered more important.

Developments in the 1990s affected the electricity and gas sectors in particular. The First Energy Package threatened the special arrangements with the GFU and the FU, which were long defended by Norway. Here Norway argued that ‘free competition’ in production and sale between companies might contribute to weaker resource management, a larger supply of gas in the market, and put pressure upon prices, particularly in the short and medium terms. The impaired possibility of exploiting economies of scope by opening Norwegian pipelines through a third-party access arrangement might make things more complicated technically and more expensive. The advantages of scope between Norway as a gas seller and the large transmission companies on the continent, expressed through the long-term take-or-pay (TOP) contracts, were also pointed out.

However, it was not obvious that the GFU, retained in its old shape, was sufficiently dynamic to safeguard Norwegian interests when many smaller and more short-term contracts were evolving. The market had been undergoing fundamental changes for some time, through extensive growth and infrastructural developments—in which also Norway played an active part by developing its own energy infrastructure. A changed role for the GFU might be in the Norwegian interest. Both market developments and political efforts were pushing producers to sell gas directly to

customers. The buyers of 'new' Norwegian gas (new contracts) would not (only) be the same as before (the transmission companies) but also the transmission companies' customers (distribution companies, the industry and gas power plants). This all indicated that future gas contracts would be made on a more fragmented basis than before.

The argument about maintaining market power through the GFU was clearly contrary to the principles of a liberalized gas market, as well as the direct interests of consumer countries (in this case, the EU member states). On the other hand, the principles defining how FU worked did not differ greatly from the principles of the EU SM, as long as the Ministry of Petroleum and Energy did not discriminate on who was to receive licences on the Norwegian continental shelf. Optimal resource management and the exploitation of economics of scope are important also in a liberalized market environment. Eventually, having been close to vetoing the directive (i.e. refusing to transpose it into Norwegian law), Norway changed its position from conflict to adaptation and agreed to abolish the GFU and FU arrangements according to EU interpretation of the directive and EU competition law.

Within this new framework—combined with the privatization of Statoil—the Norwegian government managed to implement the directive without compromising national interests. To take care of the SDFI, a new fully state-owned company—Petro—was created in May 2001. The company assumed responsibility for the ownership interests of the state, monitoring Statoil's production and sales activities and keeping the accounts for the SDFI. To secure open access for transportation of gas on the Norwegian continental shelf, another new fully state-owned company was established—Gassco—which took over Statoil's role as operator for transmission systems to the continent and the UK. These systems had different tariff practices and were organized as separate companies, where each could deny third-party access to their systems, now changed to an open-access system. The new Gassled partnership system offered in principle equal tariffs for everyone using the system, as an adjustment to the directive.

Together, these elements of policy change translated EU unbundling and competition principles and regulatory requirements into a policy package that made it possible to maintain important Norwegian energy policy goals. Government policy and structures changed with industrial and market maturation, in addition to the impacts of Norway–EU integration. The negotiating position towards buyers was weakened but not in a fundamental way. Downstream markets had also become more open

than before—a positive development, from the Norwegian perspective. Statoil continued as the single seller of the SDFI/Petoro oil and gas, representing some 70–80 per cent of all Norwegian gas exports. The links between state and company remained strong, partly because the state maintained its position as majority owner with some two-thirds of the shares. The adjustments brought Norwegian petroleum policy in line with the EU's later Second and Third Energy Packages, and the Energy Union, necessitating no further institutional or legal changes. The Norwegian state achieved a more regulative role at the expense of an interventionist one in its energy sector but remained at the wheel and as the main rent collector.

The Norwegian electricity market (based mainly on hydropower, which generates 99 per cent of the electricity used in the country and covers some 40 per cent of domestic energy needs) was liberalized ahead of the EU through the Energy Law of 1990. EU directives for this market have had no impact on Norwegian energy policy. However, the EU held that Norway's government waterfall ownership arrangement was not in line with EU rules (i.e. state, county or municipal ownerships). In 2000, the ESA argued that the Norwegian Concession Law of 1917 and the establishment of the Reversion Institute were in violation of Articles 31 and 40 in the EEA Agreement, as only Norwegian government institutions could receive a perpetual licence. Again Norway refused to change the arrangement, this time taking it all the way to the EFTA Court. The Court ruled in 2007 that the difference in the regulation between public and private owners of hydroelectric power represented an indirect discriminatory restriction on EEA rules. Norway basically lost the case—but again the government found a working solution in the implementation and change of domestic policy. The issue addressed by the EEA Court was not the Reversion Institute and government ownership as such nor whether the scheme involved national restrictions: rather it was that 'the system of public ownership must be uniform and consistent, in order to justify restrictions' (Storthinget, 2007, p. 60, author's translation). As private owners could not avoid the Reversion Institute, the Norwegian government simply decided to transfer *all* hydropower production to the government. It created what was called the 'Consolidation Model', enhancing government ownership. In the new model, private companies were not to be granted new independent concessions at all (with the exception of small power plants), and any hydropower resources still under private ownership were to be transferred to government ownership

in line with the Reversion Institute. Up to a third of the shares in a hydro company could be sold to private interests, but the government must remain the majority owner. Taken together, the EFTA Court's judgment had the opposite effect of what some lobbyists in Brussels had anticipated. Norway's Reversion Institute was not abolished—instead, government ownership was strengthened through compensatory policies on the part of the state.

This rearrangement of the Reversion Institute for hydropower resources, and changes in the petroleum regimes, in response to EU requirements, made Norwegian energy policy more similar to the EU system in policy form and process—without leading to any considerable degree of political convergence (real political similarity). Although strongly focused on the role of the Norwegian state in dealing with problems caused by market imperfections in its petroleum sector, the EEA Agreement did not challenge the dominance of the state. The heavy taxation systems were retained, as was the arrangement with the SDFI for capturing a maximum share of the economic rent for the state.

The main lesson learned was that SM regulations set limits for the content of normative political measures: non-discriminatory restrictions are allowed, but not discrimination between firms and persons is not allowed, regardless of whether it is a state or a private firm that runs the business. What changed was that national goals could no longer be achieved by normative political means alone but would have to be addressed in a complementary manner, with the state acting as both an actor and regulator. More decisions would be made by independent market actors, amid greater state ownership and regulatory interventions in markets and the activities of private actors.

However, the EEA Agreement did affect the policy of choosing development concepts and materials specifically designed to fit the Norwegian supply industry (Arnesen, 1995, pp. 343–393)—which was a *de facto* protectionist measure that favoured Norwegian suppliers. It also contributed to changing the constellations of domestic actors relevant for petroleum policy formation. Within the government, the Ministry of Foreign Affairs (MFA) regained much of the prominent role it had in the 1960s and 1970s when the processes concerning the law of the sea were in focus. That was an important reason for appointing a special minister for EU/EEA affairs within the MFA in 2013. Further, in the areas where the EEA Agreement applies, the Ministry of Justice, with its sub-organs, has gone from being a domestic law-maker to an external law-taker, sometimes even

overriding what the MPE otherwise would have done in the petroleum sector. Before the EEA Agreement came into effect, the MPE had tended to request the Ministry of Justice to make laws that supported its policy objectives.

The process of integration with the EU, together with global liberal trends, also strengthened liberal ideology and an emphasis on a New Public Management (NPM) type of policy. Whereas the OPEC revolution gave strong support for independent national energy policy-making in the 1970s, the liberal turn of the 1990s and onwards provided disincentives for greater state engagement.

Norway managed to retain control of its energy industry—by that time, the petroleum industry had reached a mature phase. If, however, the resources had been discovered not in the 1960s/1970s but in the 2000s, market integration with the EU might have caused problems when Norway found itself having to build a national petroleum industry from scratch. Many of the state entrepreneurial measures of the 1970s and 1980s would today be in direct conflict with current international trade regulations (the EU, the WTO). Strong state involvement would have been possible, but discriminatory interventions favouring Norwegian companies would have been difficult. Norway might have gone the same way as many other resource-rich countries, losing control of resources and, especially in the petroleum sector, falling victim to the resource curse paradox (Auty, 1993). Under the EEA Agreement, it would have been far more difficult, perhaps impossible, to award the best licences to Statoil and not to more efficient foreign competitors. Moreover, any preferential treatment of the Norwegian supply industry would probably have been prohibited.

Under the current legal and regulatory conditions shaped by the EEA Agreement and a more liberal approach, a government cannot support specific companies—in contrast to the situation in the 1970s. Politically motivated actions, decisions and measures must remain neutral when various types of actors are to be dealt with, be they national or international. In these circumstances, the companies with the most competence and capital at the time—the big IOCs—might possibly have dominated the sector. Today, the Norwegian state has been able to pursue an innovative industrial policy, within the EU economic paradigm, to address the problems of ‘normal’ industries. However, such an approach would not work in a situation when the economy experiences an exogenous shock—for instance, the discovery of massive petroleum reserves—or when there is a need to control and maintain a sector of strategic economic importance, such as the energy sector.

CONCLUSIONS AND POLICY RECOMMENDATIONS

The EEA Agreement has entailed the transfer of sovereignty from Norway as EFTA country to the EFTA Surveillance Authority (ESA) and the EFTA Court and thereby *de facto* to the EU. The main difference between full-fledged EU members and the EFTA countries is that the latter cannot participate in final EU decision-making, and the development of the EU in other areas, unless specifically agreed. The EU is the rule-maker and the EFTA countries are the rule-takers. However, as argued sometimes rule-takers can remain national policy-makers, able to shape their policies in line with their national interests. By applying national interpretation and innovative implementation of EU rules and regulations, and policy packages to compensate for lost policy options, nationally defined goals can often be retained. Powerful state companies and institutions can increase the ability to reach these goals.

The most important point in relations with the EU is not to break with its non-discriminatory competition principles. This resembles the situation of full EU member states. If Norway were to enter a trade agreement similar to the one negotiated by Switzerland, it could try to get energy policy excluded from the overall framework agreement. Both EU membership and a trade agreement like that of Switzerland may seem feasible options, as they provide better opportunities for national political manoeuvring than under the EEA Agreement.

However, regardless of affiliation, much policy will have to be handled in interaction with the EU and its member states. The Norwegian–EU energy experience indicates that an active and insightful relationship with the EU can be at least as important as the overarching formal affiliation between the two. In the Great European Energy Game, it is crucial to understand and remain ahead of the political ambitions and actions of the EU and its member states—and not merely to copy laws, directives and regulations in a passive way. Maintaining a comparative advantage in policy-making is important for achieving strategic economic goals. The dynamics in relative technological, commercial and political abilities is central to the actual national room for political manoeuvre and, hence, the effects of SM rules and regulations on national policy outcomes. In EU–Norway energy relations to date, EU regulations have ended up being more about form than substance as regards political content and purpose.

The making of EU rules and regulations is the privilege of large, rather than small, EU member states. The passive character of the EEA Agreement

minimizes small-state Norway's influence on EU policy as compared to other small SM participants. Beyond lobbying and use of other instruments, as discussed in Chap. 5 of this volume, Norway has little general political influence over the EU—due both to its non-membership and its small-state status. Concerted action will in general be the possibility for small states to influence supranational rules. However, in the petroleum sector, Norwegian interests are not shared with any small (or big) EU member state, and intra-EU alliance-building is difficult. That being said, some options do exist. Norway has embarked on successful cooperation with Lithuania to reduce the latter's gas dependence on Russia, as discussed in Chap. 9 of this book. Poland—whose energy policy is examined in Chap. 8 of this volume—has repeatedly signalled that an 'energy alliance' with Norway could benefit both countries and help them to coordinate their own, and EU, energy policies more efficiently. The fact that Norway is a significant petroleum exporter on which the EU depends as much as it depends on Russia (especially in the case of natural gas) gives Norway some additional clout for influencing the energy policies of the EU and its member states.

In other words, the EU–Norway energy interdependency may give Norway some leverage on EU energy policy and may lead to greater understanding of the Norwegian interest in testing how to best adapt to rules and regulations. Legal opaqueness opens up for interpretations on both sides: 'The complexity of the petroleum sector implies that when a judicial review of whether a measure is necessary to take care of the concerns in which it is anchored is unlikely to be very intense ... The ESA is unlikely to be able to deal with other issues than outright violation of rules' (Arnesen, 1995, p. 662, author's translation). As Norway continues to look for ways of maintaining state control over profits, infrastructure and gas sales, its large market share may further its room for political manoeuvre—but this will require a clear understanding of the EU system as a second-best economic integration area and competent policy-making within the system.

Realist-liberalist Joseph Nye (2015) argues that, also under a liberal international trade system, states must protect themselves against other states, forces and preferences—and, as much as possible, maintain power dominance under which order may persist. As an alternative to a one-sided adaptation where EU unilaterally exports its legal framework and ways of doing things, the EU could address the demands of one and then the other, acting on a case-by-case basis by finding common ground for

bilateral agreements. The EU could consider dropping its usual method of regulatory embrace and focus instead on core market access issues, strong dispute settlement and the adoption of international standards for regulation in business and industry (Dreyer & Hindley, 2008).

However, the relationship between SM policy, foreign policy and other policy areas remains poorly defined in the EU. If all agreements were clear, with only one single consensus-based understanding of what is agreed upon, there would be no need for dispute settlement arrangements or courts to decide what is right or wrong. The Energy Packages and the Energy Union have failed to address EU bilateral and geopolitical energy interests. When the industrial and trade organizations and actions of external suppliers are not in line with EU rules and regulations, this is mainly seen as market failures—and not recognized as a foreign policy issue involving the CFSP or the European External Action Service (EEAS).

In the EU view, external non-compliance with the *acquis* must be fixed as an extension of EU internal rules and regulations. The EU seeks to impose its conditions and preferences without taking into account the interests of external suppliers. Current court and arbitration cases between Gazprom and the EU, based on EU and WTO law, show that Russia has taken a more conflictual approach to its relations with the EU than has Norway (Austvik & Lembo, 2017). Russia argues against EU impositions and demands to be considered as an equal partner that wishes to continue to develop and manage its resources independently (with some room for negotiation and common agreement as to some EU requirements).

As a (very) large state, Russia is part of European high politics and may have better chances for creating cooperation with the EU on an equal basis by challenging its system through conflict, unlike small-state Norway. Exporting the Norwegian model to other countries is difficult, although lessons can be drawn. Norway serves as a European powerhouse and is in many respects a quite special case: a small state and country with high competence and a broad set of capabilities and options. Following the Norwegian example, if Russia eventually nevertheless should *de jure* accept WTO/EU types of law in its energy sector, that might not necessarily *de facto* change its policy goals, even if it formally changes its domestic energy and natural gas export policies. The way Russia organizes its energy sector cannot mirror Western solutions, because it operates under different legal, social, economic and political conditions that make comparison impossible. However, adjusted to the Russian situation, such an

approach might entail elements of pragmatic changes that could also benefit Russian society and state.

This is definitely not the case with Norway, which shares most norms and values with its EU partners. Indeed, that may also explain, at least partly, why Norway has been able—and willing—to adapt to the EU-imposed set of rules and regulations.

The continuing pressures for European convergence make the interplay between national and European preferences and priorities central, despite variation in the overarching formal relations. The scale and scope of conflict, cooperation and adaptation vary, but national and supranational comparative advantages in policy-making remain central to both rule formulation and implementation. The more complex the situation becomes, the more difficult will it be to achieve *de facto* comprehensive supranational arrangements in the EU. As a result, the room for manoeuvring regarding national adaptation expands. Demands for harmonization of political form and process, but not necessarily political convergence, make it possible for countries to have the same policy in terms of rules and regulations but with differing political content. Relative advantages in policy-making are especially important in the energy industry, with its strategic and economic implications for each nation state. If a state limits itself to following an industrial and innovation policy for ‘normal’ commercial industries, strategic policy goals will be formulated by someone else, perhaps strong private entrepreneurs, businesses, other countries, international trends and others. That in turn may lead producers into a resource curse situation and consumers into security-of-supply problems—unless the EU can achieve a common and truly functional energy policy.

Nevertheless, the Norway–EU energy case has shown that many nationally defined policy goals can be maintained in a strategic sector, also within liberal EU regulations. We have seen how nationally defined policy goals may be achieved by means of active regulatory and legal interpretation, innovative adaptation and, as necessary, the introduction of new policies and greater direct state participation to compensate for lost opportunities.

REFERENCES

- Andersen, S. S., Goldthau, A., & Sitter, N. (Eds.). (2017). *Energy Union: Europe's New Liberal Mercantilism?* London: Palgrave Macmillan.
- Andersen, S. S., & Sitter, N. (2009). The European Union Gas Market: Differentiated Integration and Fuzzy Liberalization. In G. Fermann (Ed.),

- Political Economy of Energy in Europe: Forces of Integration and Fragmentation* (pp. 63–84). Berlin, Germany: Berliner Wissenschafts-Verlag.
- Archer, C. (2005). *Norway Outside the European Union: Norway and European Integration from 1994 to 2004*. London: Routledge.
- Arnesen, F. (1995). *Statlig styring og EØS-rettslige skranker*. Oslo, Norway: Universitetsforlaget.
- Ask, A. O. (2006). *Mennene som skapte oljegiganten: Statoils historie er også beretningen om Olje-Norge*. www.e24.no
- Austvik, O. G. (2009). EU Natural Gas Market Liberalization and Long-Term Security-of-Supply and Demand. In G. Fermann (Ed.), *Political Economy of Energy in Europe: Forces of Integration and Fragmentation* (pp. 85–118). Berlin, Germany: Berliner Wissenschafts-Verlag.
- Austvik, O. G. (2012). Landlord and Entrepreneur: The Shifting Roles of the State in Norwegian Oil and Gas Policy. *Governance*, 25(2), 315–334.
- Austvik, O. G. (2016). The Energy Union and Security-of-Gas Supply. *Energy Policy*, 96(3), 372–382.
- Austvik, O. G., & Claes, D. H. (2011). *EØS-Avtalen og Norsk Energipolitikk* (EEA Agreement and Norwegian Energy Policy). <http://europa.utredningen.no/Rap8-energi.pdf>
- Austvik, O. G., & Lembo, C. (2017). EU–Russian Gas Trade and the Shortcomings of International Law. *Journal of World Trade: Law, Economics, Public Policy*, 51(4), 645–674.
- Auty, R. M. (1993). *Sustaining Development in Mineral Economies: The Resource Curse Thesis*. London: Routledge.
- Birchfield, V. L., & Duffield, J. S. (Eds.). (2011). *Toward a Common European Union Energy Policy: Problems, Progress, and Prospects*. London: Palgrave Macmillan.
- Black, J., Lodge, M., & Thatcher, M. (2006). *Regulatory Innovation: A Comparative Analysis*. Cheltenham: Edward Elgar.
- Bressand, A. (2012). *The Changed Geopolitics of Energy and Climate and the Challenge for Europe: A Geopolitical and European Perspective on the Triple Agenda of Competition, Energy Security and Sustainability*. The Hague, Netherlands: Clingendael, Clingendael International Energy Programme.
- Buchan, D. (2014). Energy Policy: Sharp Challenges and Rising Ambitions. In H. Wallace, M. A. Pollack, & A. R. Young (Eds.), *Policy-Making in the European Union* (pp. 344–366). Oxford: Oxford University Press.
- Buchan, D., & Keay, M. (2016). *Europe's Long Energy Journey: Towards an Energy Union*. Oxford, UK: Oxford University Press.
- Claes, D. H., & Tranøy, B. S. (Eds.). (1999). *Utenfor, annerledes og suveren? Norge under EØS-avtalen*. Oslo, Norway: Fagbokforlaget.
- Correlje, A., & van der Linde, C. (2006). Energy Supply Security and Geopolitics: A European Perspective. *Energy Policy*, 34(5), 532–543. <https://doi.org/10.1016/j.enpol.2005.11.008>.

- Dreyer, I., & Hindley, B. (2008). *Russian Commercial Policies and the European Union: Can Russia be Anchored in a Legal International Economic Order?* (ECIPE Working Paper No. 05). Retrieved December 16, 2017, <http://ecipe.org/app/uploads/2014/12/russian-commercial-policies-and-the-european-union-2013-can-russia-be-anchored-in-a-legal-international-economic-order.pdf>
- Eberlein, B. (2010). Experimentalist Governance in the European Energy Sector. In C. F. Sabel & J. Zeitlin (Eds.), *Experimentalist Governance in the European Union: Towards a New Architecture* (pp. 61–78). Oxford, UK: Oxford University Press.
- Eikeland, P. O. (2011). The Third Internal Energy Market Package: New Power Relations among Member States, EI Institutions and Non-State Actors? *Journal of Common Market Studies*, 49(2), 243–263. <https://doi.org/10.1111/j.1468-5965.2010.02140.x>.
- European Commission. (2017). *2nd Report on the State of the Energy Union*. Retrieved December 12, 2017, https://ec.europa.eu/commission/sites/beta-political/files/2nd-report-state-energy-union_en.pdf.
- European Union. (2007, October). *The European Economic Area (EEA). Overview. Legal Notice*. Brussels: European Commission.
- Godzimirski, J. M. (2015). Russia–EU Energy Relations: From Complementarity to Distrust? In J. M. Godzimirski (Ed.), *EU Leadership in Energy and Environmental Governance? Global and Local Challenges and Responses* (pp. 89–112). Houndmills, UK: Palgrave Macmillan.
- Gouardères, F. (2016). *Energy Policy: General Principles. EU Fact Sheets*. Brussels, Belgium: European Parliament.
- Graver, H. P. (2000). *Supranationality and National Legal Autonomy in the EEA-Agreement*. Oslo, Norway: ARENA.
- Heubbaum, H., & Biermann, F. (2015). Integrating Global Energy and Climate Governance: The Changing Role of the International Energy Agency. *Energy Policy*, 87, 229–239.
- James A. Baker III Institute for Public Policy. (2007). *The Changing Role of National Oil Companies in International Energy Markets*. Houston, TX: James A. Baker III Institute for Public Policy of Rice University. Retrieved December 17, 2017, <https://www.bakerinstitute.org/events/1301/>.
- Joffé, G., Stevens, P., George, T., Lux, J., & Searle, C. (2009). Expropriation of Oil and Gas Investments: Historical, Legal and Economic Perspectives in a New Age of Resource Nationalism. *Journal of World Energy Law & Business*, 2(1), 3–23.
- Lang, K.-O., & Westphal, K. (2017). *Nord Stream 2: A Political and Economic Contextualisation* (SWP Research Paper). Berlin, Germany: SWP. Retrieved December 16, 2017, https://www.swpberlin.org/fileadmin/contents/products/research_papers/2017RP03_lng_wep.pdf

- Lissek, U. (2016). Nord Stream 2: Energy Security and Cooperation for Decades to Come. *Baltic Rim Economics*, 6, 49.
- Marcel, V. (2006). *Oil Titans: National Oil Companies in the Middle East*. Washington, DC/London: Brookings Institution Press/Chatham House.
- Matlary, J. H. (1997). *Energy Policy in the European Union*. New York: St. Martin's Press.
- Ministry of Foreign Affairs, Norway. (2002). *Report to the Stortinget 2001–2002. Om EØS-samarbeidet 1994–2000* (Report No. 27, 26 April 2002). Oslo, Norway: Ministry of Foreign Affairs.
- Ministry of Foreign Affairs, Norway. (2012). *Utenfor og innenfor: Norges avtaler med EU* [Outside and Inside: Norway's Agreements with the EU] (NOU 2012:2). Oslo, Norway: Ministry of Foreign Affairs. Retrieved December 12, 2017, <http://www.regjeringen.no/pages/36797426/PDFS/NOU201220120002000DDDPDFS.pdf>
- Nye, J. S., Jr. (2015). *Is the American Century Over?* Cambridge, UK: Polity Press.
- O'Sullivan, M. L. (2013). The Entanglement of Energy, Grand Strategy, and International Security. In A. Goldthau (Ed.), *The Handbook of Global Energy Policy* (pp. 30–47). London: Wiley-Blackwell.
- Pollak, J., Schubert, S., & Kreutler, M. (2016). *Energy Policy of the European Union*. London: Palgrave Macmillan.
- Sabel, C. F., & Zeitlin, J. (2011). Experimentalist Governance. In D. Levi-Faur (Ed.), *The Oxford Handbook of Governance* (pp. 169–183). Oxford, UK: Oxford University Press.
- Sabel, C. F., & Zeitlin, J. (2012). Experimentalism in the EU: Common Ground and Persistent Differences. *Regulation & Governance*, 6(3), 410–426.
- Slominski, P. (2016). Energy and Climate Policy: Does the Competitiveness Narrative Prevail in Times of Crisis? *Journal of European Integration*, 38(3), 343–357.
- Stortinget. (2007). *Om lov om endringer i lov 14. desember 1917 nr. 16 om erverv av vannfall, bergverk og annen fast eiendom m.v. (industrikonsesjonsloven) og i lov 14. desember 1917 nr. 17 om vasdragsreguleringer (vasdragsreguleringsloven)* (Ot.prp. nr. 61, 2007–08). Oslo: Olje- og energidepartementet [Ministry of Petroleum and Energy].
- Szulecki, K., Fischer, S., Gullberg, A. T., & Sartor, O. (2016). Shaping the 'Energy Union': Between National Positions and Governance Innovation in EU Energy and Climate Policy. *Climate Policy*, 16(5), 548–567.
- van Renssen, S. (2015). Interview Jean Michel Glachant 'to Get an Energy Union, You Need New Institutions'. Amsterdam: *Energy Post*. Retrieved December 12, 2017, <http://energypost.eu/interview-jean-michel-glachant-get-energy-union-need-new-institutions/>

- Vihma, A., & Wigell, M. (2016). The Strategic Case against Nord Stream II. *Baltic Rim Economies*, (6), 48.
- Youngs, R. (2009). *Energy Security: Europe's New Foreign Policy Challenge*. Abingdon, UK: Routledge.
- Youngs, R. (2013). The EU's Global Climate and Energy Policies: Gathering or Losing Momentum? In A. Goldthau (Ed.), *The Handbook of Global Energy Policy* (pp. 421–434). London: Wiley-Blackwell.
- Zeitlin, J. (2016). EU Experimentalist Governance in Times of Crisis. *West European Politics*, 39(5), 1073–1094.



Germany's *Energiewende*: Climate Change in Focus—Competitiveness and Energy Security Sidelined?

Kirsten Westphal

This chapter examines how Germany, the largest consumer and importer of energy in Europe, has been adapting to EU policies with regard to the EU's three key energy objectives—security of supply, sustainability and competitiveness—and how it has contributed to setting the agenda in the EU.

In focus here is Germany's *Energiewende*, which has become the major project for domestic policymakers and stakeholders. Since 2011, Germany's energy transition has been associated mainly with the nuclear phase-out. However, the *Energiewende* rests on two major pillars: enlarging the share of renewable energy in energy consumption and promoting energy saving and energy efficiency. This is an issue of remarkable *durée*, rooted in developments that started some 30 years ago: back in the 1980s, a 'Green Energy Transition' (*Grüne Energiewende*) without nuclear and fossil fuels was being debated. Since then, renewable energies have been developed as

K. Westphal (✉)

Institute for International and Security Affairs (SWP), Berlin, Germany

e-mail: kirsten.westphal@swp-berlin.org

© The Author(s) 2019

J. M. Godzimirski (ed.), *New Political Economy of Energy in Europe*, International Political Economy Series,
https://doi.org/10.1007/978-3-319-93360-3_7

a key element of a more sustainable energy system. Germany has been deeply concerned and occupied with its internal project of an energy transition (Fischer & Geden, 2011; Westphal, 2012), with the focus on a transition in power generation. Its external energy policies have been shaped by the *Energiewende*, with emphasis on communicating and promoting an integrated energy and climate policy in the EU as well as globally—for reasons of energy security but even more so due to concerns for climate change. The strong conviction that climate change is human-caused has been central in determining Germany's external and domestic energy (and climate) policies.

This chapter focuses on the period 2007 until 2017. Federal parliamentary elections took place in September 2017, and 2007 was the year when an integrated energy and climate policy was formulated in the EU under the German presidency. The hypothesis for this contribution is that over the past decade, concern about climate changes has been prioritized over the other targets of the EU strategic energy triangle. The issue of competitiveness has been raised as a challenge to German industry in the specific contexts of the US shale revolution and the price gap across the Atlantic and in general terms in the context of natural gas prices and the high-end-consumer costs for electricity. The paradigm of 'letting market forces work' beyond the regulated renewable energy segment has been seen as an answer to both economic competitiveness and energy security. Most importantly, the issue of security of supply has been approached primarily through an economic and regulatory lens.

As an important EU member, Germany has been both a rule-taker, a country that had to follow rules set by the EU, and a rule-maker, one of the key actors shaping EU energy policy. To analyse the two-way relationship between Berlin and Brussels and to grasp the dynamics of projection and adaptation, we will first examine the fundamentals of the German energy mix, the guiding paradigms and the politics behind its energy policies. We then focus on the EU dimension, with an assessment of convergence between policies, perceptions and institutions.¹ Next, three case studies are presented: the 'Electricity Wende' and the gas sector and the case of Nord Stream 2 as well as external energy relations. The final section will draw conclusions about Germany's position in the EU and role of the nature of its energy economy.

¹ Examined in further detail in Chaps. 1 and 6 of this volume.

SETTING THE STAGE: THE GERMAN ENERGY MIX, THE GUIDING *ENERGIEWENDE* PARADIGM AND THE DECISION-MAKING PROCESS

The Energy Mix

Germany's primary energy mix is similar to that of other highly industrialized states and is dominated by fossil fuels: oil has a share of 34.6 per cent, natural gas 23.7 per cent, and coal 22.2 per cent. Nuclear energy accounts for 6.1 per cent and renewables 13.1 per cent in the overall energy mix (AG Energiebilanzen, 2017a). In recent years, the share of renewables has significantly increased and already exceeds 33 per cent of the power generation mix, while the share of nuclear energy in power generation had decreased to 11.6 per cent by 2017 (AG Energiebilanzen, 2017b). Germany has an overall dependency rate for all energy sources of almost 62 per cent (Eurostat, 2017). The share of import dependency has grown over the past decade and is more than 98 per cent for oil, 93 per cent for hard coal and 92 per cent for natural gas (Statista, 2017). Additionally, Germany obtains all of its uranium from foreign sources. Renewable energies and lignite are the only domestic energy sources in which Germany is self-sufficient.

Energy policy in general is highly determined by the national energy mix, which is in turn a result of policy choices and the country's energy-resource endowment. The energy mix has a structural impact on the national economy and relations with the major suppliers of hydrocarbons. Import dependency is generally relevant for foreign and security policy considerations as well. Germany's oil imports are highly diversified: 20.6 per cent of Germany's crude oil imports in 2017 came from North Sea countries and 23.8 per cent from OPEC countries (Bundesamt für Wirtschaft und Ausfuhrkontrolle, 2017). The trend of declining European indigenous resources is manifest and will affect future import-export equations.

The concerns about depleting indigenous production are even more pressing for natural gas, as only 6 per cent are covered by German gas fields and 31 per cent originate in the Netherlands (in 2016). The Dutch gas production in Groningen has been constantly reduced from 53 billion cubic metres (bcm) to 21.6 bcm after tremors (Reuters, 2018). Norway accounted for 31 per cent, and 41 per cent is supplied by 'others' (BMW, 2017a). Behind the caption 'others' is mainly Russia, which provides approximately 40 per cent. The gas statistics for Germany are not very

precise as the German Authority for Export Controls abandoned the country-by-country gas import statistics at the end of 2015.

For Germany, energy security has been primarily an issue of power grid stability: the challenges for the power grid are significant, as the increasingly fluctuating energy sources must be balanced. Grid expansion and adaptation have not followed apace with generation. Natural gas imports from Russia have come under scrutiny only after the annexation of Crimea and continued Russian support for the separatists in eastern Ukraine (Bros, Mitrova, & Westphal, 2017, pp. 33–35, 38–41).

Guiding Policy Paradigms: The Energiewende and the Market

German energy policy has been directed to an *Energiewende* (BMWi, n.d.). The realization of the *Energiewende* has become a major political project but has also been the subject of large-scale debate and potential corrections to the set of instruments.

The energy concept of September 2010 (BMWi, 2010) laid the basis for this policy, which aims at achieving greenhouse gas (GHG) emission reductions of 40 per cent by 2020, 55 per cent by 2040 and 80–95 per cent by 2050 (all against 1990 levels). The 2010 concept has two core policy objectives: to increase the share of renewable energy in final energy consumption to 18 per cent by 2020 and then to 60 per cent by 2050 and in power generation even to 80 per cent (BMWi, 2017b). Energy efficiency is to reduce final energy consumption by 20 per cent by 2020 and by 50 per cent by 2050 (compared to 2008). The insulation rate for buildings is to be doubled; and final energy use in the transport sector is to decrease by 10 per cent by 2020 and by 40 per cent by 2050 (see Fig. 7.1).²

Germany's *Energiewende* has been associated largely with the policy decision to phase out nuclear power after the 2011 Fukushima Daiichi nuclear catastrophe, with the policy goal then added to the 2010 concept. In fact, anti-nuclear sentiment in Germany has longer traditions, dating back to the nuclear Chernobyl accident in 1986. The post-Fukushima decision put Germany back on track as to the nuclear phase-out agreed in 2000 by the Social Democratic Party (SPD)/Green government, which had set a 32-year time limit on the country's nuclear power plants. In 2010, the then-ruling coalition of the Christian Democratic Union (CDU)/the

²For more details on Energiewende goals, see www.bmwi.de/Redaktion/EN/Artikel/Energy/target-architecture.html.

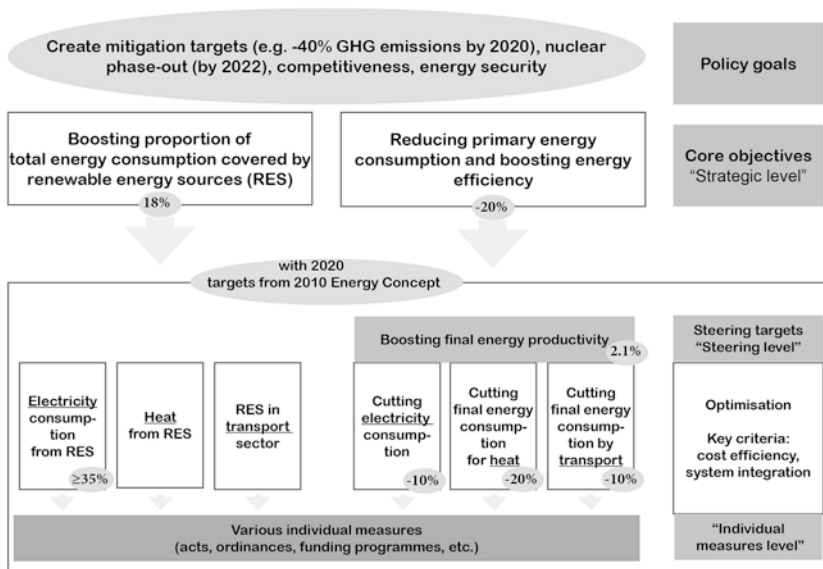


Fig. 7.1 *Energiewende* target architecture

Christian Social Union (CSU) and the Liberal Democratic Party of Germany (FDP) decided against the phase-out—so the decision one year later represented a policy U-turn.

The *Energiewende* is a continuation of previous policies insofar as the idea of green energy also dates back to the 1980s. The predecessor to the feed-in law in Germany, the Act on the Sale of Electricity to the Grid, entered into force in 1991. In 2000, the Act on Renewable Energy with the feed-in tariff and priority access for renewable energy as well as the renewable energy (RE) surcharge was introduced. This Act (with amendments since then) brought the real push for RE, giving it priority access to the grid. Moreover, in August 2007 the Grand Coalition approved an 'Integrated Energy and Climate Programme'. This decisive step included the EU Commission's Climate and Energy Package of 10 January 2007 (under the German Presidency), with its 20-20-20 targets.

With its strong support for RE, Germany has contributed significantly to bringing global price curves down for RE technology. PV and onshore wind power have proven competitive with conventional generation.

Despite the country's high import dependency on oil, gas and hard coal, energy policy has been conducted through primarily the power sector. The predominant focus on an *Electricity Wende* (or more precisely a transition in power generation) has been supplemented with a transport (*Verkehrswende*) and a heating transition since 2016. In November 2016, the Federal Ministry for the Environment issued a Climate Action Plan for a climate-neutral Germany by 2050. Electrification of all sectors and sector coupling were formulated as the key objectives (Federal Ministry for Environment, 2016).

Beyond the *Energiewende*, however, a market-based energy policy has been the guiding principle in Germany. According to the German Law on Energy Industry (*Energiewirtschaftsgesetz*) of 2005 (with subsequent amendments), security of supply is primarily the responsibility of private companies, but the government has a special role in regulation and monitoring, and as regards prevention and emergencies. As functioning competitive markets are not a given, the state has to guarantee a stable regulatory framework to let market forces work.

In the past, large utilities dominated in Germany, which had municipalities and/or German federal states as well as large private corporations (in crossover ownership and with personal crossover linkages) as major shareholders. This German corporate governance system, the *Deutschland AG* ('Germany incorporated'), was characterized by a highly concentrated control and ownership structure which was built up in the post-war period (Andres, Betzger, & van den Bongard, 2011). The utilities benefited from territorial demarcations and regional monopolies in the grid-bound sectors of power and gas, prior to the EU internal energy market reforms (the 'Energy Market Packages' of 1997/1998, 2003 and 2009). By then, these utilities had a significant knowledge and informational advantage over the government (Lohmann, 2010, p. 174). The erosion of the *Deutschland AG* accelerated in the early 2000s because of the globalization of capital markets, a change in corporate structures and, most importantly, changes in the German fiscal law in 2002 (Andres et al., 2011, p. 186). As the utilities had already been (partly) privatized before demopolization and unbundling in the EU was reinforced, the Third Energy Market Package and the subsequent reforms functioned as a multiplier and amplifier for actors in the German market. The multitude, variety and diversity of actors in the German energy market—ranging from German to foreign companies, from energy companies to financial institutions like pension funds—make Germany a special case within the EU. Unlike in

other EU member states, there are no national incumbents, champions or major players. This political economy of the German energy sector determines Berlin's energy policies and its stance in EU politics.

As a consequence of the nature of its energy economy, Germany frames its energy security in commercial rather than strategic terms. This is in line with its liberal market-based approach (Yao, Shi, & Andrews-Speed, 2018): energy is perceived as a commodity and a service, not a strategic policy tool. Thus, the energy mix and the structure of import dependencies are the outcomes of economic and corporate decisions. Private utilities and companies have primary responsibility for energy security. In other words, Germany relies on competitive market mechanisms for its security of supply. The observation that Germany lacks a 'strategic culture' (Ischinger, 2018) is all the more true for and evident in its energy policy. As a consequence of both the *Energiewende* and the market-based and non-strategic approach in conventional energy sectors, the German government is faced with the dilemma of steering an energy transition while letting market forces work.

Politics Behind

The politics behind German energy policies are complex. In fact, Germany had no ministry for energy till the Grand Coalition of CDU/CSU and SPD took over in 2013. Until then, energy policy had been split between the Federal Ministry of Economics and Technology (BMWi), responsible for security of supply, electricity generation, fossil fuels and energy infrastructure, and the BMU, responsible for climate protection, nuclear safety and renewable energies (2002–2013). This was increasingly seen as an obstacle to an effective energy policy—indeed, the boundaries had not been very clear in respect to renewable energy and energy efficiency or with regard to external energy policies.

Since 2013, the competencies have been bundled in the German Federal Ministry for Economic Affairs and Energy (BMWi). However, as energy is a cross-cutting issue, also other ministries and authorities deal with energy policy. These include the Federal Ministry of Transport and Digital Infrastructure, the Federal Ministry of Food and Agriculture (inter alia regarding biofuels) and the Federal Ministry of Education and Research. Further, the Federal Foreign Office and the Federal Ministry for Economic Cooperation and Development are involved in managing the variable geometry of external energy relations.

The very nature of Germany as a federation gives the federal states (*Bundesländer*) a certain say in energy policy as well. Several federal agencies are involved in the political and regulatory process, including the German Energy Agency (DENA), the Regulatory Authority (Bundesnetzagentur: BNetzA), the Monopolies Commission and the German Environment Agency.

Politics shape markets, but markets also shape politics³ as explained above with Germany relying on competitive market mechanisms rather than pursuing a strategic approach in securing its energy supplies from abroad. The diversity of actors and lobby groups observable in the past decade is a result of both the *Energiewende* and the EU's Energy Market Packages. In line with the observation that Germany lacks a strategic energy policy is the fact that the country—unlike other EU member states—has never had a big multinational energy champion like the French Total, the Italian Eni, Royal Dutch Shell or BP. When it seemed likely that the EU would realize an internal energy market, German Chancellor Gerhard Schröder supported steps to create a 'national energy champion' in the power and gas sector. The leading actor in the gas sector, Ruhrgas, was merged in 2002 with E.ON. Later, Ruhrgas was taken over by E.ON, and the gas business was managed under an electricity company. In April 2016 Uniper was created, uniting conventional power generation (water, coal and gas), global trade and, inter alia, engagement in Russia's power sector and natural gas production under one roof.

In the gas sector, Ruhrgas lost its special standing as a gas importer and 'midstreamer'. This process started in the 1990s with fierce competition with BASF's Wintershall for market shares in Germany but was also a consequence of the transformation of the gas market. Today, there is great diversity in gas undertakings in Germany. The biggest three companies own more than 75 per cent of all storage capacity (Bundesnetzagentur and Bundeskartellamt, 2016, p. 253), but they supply to only 32 per cent of big industrial customers and 22 per cent of all private households (ibid., p. 254)—far below any critical index of market concentration. Most German gas consumers can select their supplier from among more than 50 companies (ibid., p. 301).

The dominance of vertically integrated 'incumbents' in both the power sector and the gas sector was significantly diminished under the Third Energy Market Package of 2009. The 'big four' electricity companies

³ As noted in Chap. 1 of this volume.

RWE, E.ON, Vattenfall and EnBW unbundled their transmission businesses, and their share in conventional power generation decreased from 80 per cent in 2011 to 62 per cent by 2015. On the retail level, their market share is only slightly above a third (Bundeskartellamt, 2016); and RWE and E.ON have recently split the future 'green' branch from the conventional business. The support schemes and the cost-efficiency of renewables are providing major motivation for them to move forward.

About 50 per cent of renewable energy capacity is owned by ordinary citizens. This explains the strong backing of support schemes in the German Parliament, the Bundestag, as members of the Parliament eyed to their constituencies. The feed-in tariffs and the primary access guaranteed for small-scale PV have been a strong incentive for private households and cooperatives/local communities. Moreover, low interest rates gave a major (unintended) push for these private investments, because the scheme guaranteed an income above savings in banks. Many wind farms and biomass facilities have been built under communal or local collective ownership.

Energy policy is also a policy area where non-governmental organizations, think-tanks (such as Agora) and citizens' pressure groups are highly active on several levels (federal, state, local). The various societal groups, political parties and the energy industry differ in their attitudes and focal points regarding energy sources (see Table 7.1). Realization of the energy transition has become a major political project but is not shielded from or immune to major debate and possible corrections in the set of strategies, regulations and instruments (BMW, 2010).

Also foreign companies have expanded their activities into the German oil, gas and power sectors. For instance, Russia's Gazprom has benefited from the Third Energy Market Package by increasing its mid- and downstream engagement in the German gas market (Bros et al., 2017, p. 61). The size of the companies, active on the German market, determines their competitiveness. At the same time, the corporate identities of the companies active in Germany influence Germany's political leverage. There are today few big companies with a genuine 'German background' in the sense of a special connection to the German market that could represent 'German interests', for example, in Brussels, and might back German policy proposals.

This political economy of the energy sector is important for understanding the procedures, mechanisms and approaches of the energy political process in Germany. Europeanization and internationalization are evident also in transmission operations, where Dutch and Belgian compa-

Table 7.1 Actors and attitudes in German energy policy

	<i>Government</i>	<i>Energy industry—the ‘big four’</i>	<i>‘Green energy’ solar and wind industries</i>	<i>Public opinion^a</i>
Nuclear energy	Political consensus on nuclear phase-out post-Fukushima	Shock after the 2011 U-turn, losses in market capitalization	Consensus on nuclear phase-out	Backing for nuclear phase-out
Coal/lignite	Phase-out under discussion, CCS open/delayed	Commercial choice, depending on price relations	Coal phase-out overdue	‘Not in my backyard!’
Gas	Security, managing dependency on Russia; no clear statement pro natural gas; shale gas extraction under close scrutiny	Gas to power depends on coal–gas price relations, no CO ₂ price driven coal-to-gas switch; heat market shrinking; synthetic methane; power to gas;	Gas-fired power plants as possible backup and enabler for RE; gas as a transition fuel and a ‘bridge’; methane emissions	Import dependency, price hikes; if fossil fuels, then gas as best option
Renewables	Ambitious goals; electricity grid as a bottleneck; new auction scheme; costs of transition a concern	Split of old incumbents into a green and a traditional company	100 per cent possible	From silver bullet to a slightly more sceptical view; concern regarding costs of transition

Source: Westphal (2015)

^aSee Bundesverband Verbraucherzentrale (2013)

nies are present. The number of transmission system operators (TSOs) in Germany is significantly higher than in other EU continental member states: 4 TSOs for electric power (ENTSO-E, 2018) and 16 TSOs for gas (Fernleitungsnetzbetreiber Gas FNB, 2018). This has implications for ten-year network development planning, which is conducted through complex procedures involving the BMWI, the regulatory authority and the TSOs.

Even more important, the political economy of the energy sector also predetermines the toolbox of the German government. A functioning market is vital for security of supply, as Germany lacks national players that

could be strategically instrumentalized, for instance, to realign foreign and security policy goals with energy policy considerations. Germany must rely on the attractiveness of its market which is closely related with price-cost structures and the issue of a stable and predictable framework. Germany's geoeconomic statecraft derives from its sheer market size, its attractive marketplace ('hub') and its central geographical position.

PROVIDING THE CONTEXT: GERMANY AND THE EU'S ENERGY POLICY

Germany is widely seen as one of the most important regional and global agenda-setters in energy policy and the market for energy commodities (Godzimirski, 2016). Its ability to influence policymaking in the EU (Cox & Dekanozishvili, 2015) is related—in *realist terms*—to its (market) power and trade balances, as well as *in constructivist terms* to the attractiveness of ideas and concepts like the *Energiewende*.

In Berlin and Brussels, agenda setting and policy formulation take place and unfold reciprocally and bidirectionally. Vertical relations between Brussels and Berlin are supplemented by a complex web of horizontal relations between Berlin and other EU member-state capitals. Germany is part of the Pentalateral Energy Forum and the Pentalateral Gas Platform (Benelux, France and Germany), as well as the Baltic Energy Market Interconnection Plan (BEMIP) and the North Seas High-Level Forum. Importantly, the EU encompasses members with 'diverse political-economic configurations, various historical-technological and economic legacies' (Sattich, 2016, pp. 789–790): a mosaic of energy mixes, technical systems, ownership structures and regulatory responsibilities. Germany has an energy mix very similar to the average energy mix in the EU with regard to renewables, oil and natural gas, while the share of solid fuels is significantly higher: 25 per cent in Germany as against 16.2 per cent in the EU as a whole (European Commission, 2017a, 2017b).

Moreover, with EU integration, a spatial (re)organization is transcending national borders and (inter)connecting market places. It is underway at various layers and functional contexts (Yafimava, 2011, pp. 32–39): new physical and infrastructural interconnections, commercial and financial transactions, as well as legal and regulatory spaces. The compatibility between EU and domestic policy is growing with convergence between

institutions and policy (Cowles, Caporaso, & Risse, 2001) and also through dynamic processes of national adaptations and corresponding interests and perceptions.⁴

Energy policy is a shared competence in the EU. The Treaty on the Functioning of the European Union (TFEU or ‘Lisbon Treaty’), which was signed in 2007 and entered into force in 2009, aimed at clarifying the division of competencies between the Union and its member states. As a consequence of Art. 194, energy security, and security of supply in particular, became a field requiring coordination among the EU institutions and the member states (Andoura, 2013; Andoura, Hancher, & Van der Woude, 2010). Moreover, the principle ‘in the spirit of solidarity’ became part of the primary law of the EU (Art. 122(1) TFEU). The greater need for coordination seems to be a functional consequence: member states retain their sovereign rights to decide on their energy mix—but coordinated action is needed to build a functioning and integrated internal market, to implement infrastructure projects of common interest (to interconnect energy networks) and to deal with security of supply challenges. The Internal Energy Market Packages aim at creating a new order and establishing a liberalized, competitive, well-functioning and integrated EU gas market. The most important here are Directive 1998 (Directive 98/30/EC) and the Internal Market Packages 2003 (Directive 2003/55/EC) and 2009 (2009/73/EC). The picture becomes even more complex if climate and competition policies are taken into account. Climate policy is part of environmental policy and therefore an area of EU competence since the Treaty of Amsterdam.

The year 2007 marked the beginning of a new era, when the EU embarked on a common and integrated energy and climate policy. Germany had the presidency of the EU Council in the first half of 2007; ambitious climate targets topped the agenda in Germany’s national, EU and international energy policies. Since then, EU energy policy has been based on the strategic triangle of sustainability, competitiveness and energy security. The EU Commission’s programme ‘An energy policy for Europe’ was the most substantial action programme in the area of energy policy till then. Part of this package was the 20-20-20 agenda, with targets set in

⁴On these aspects and various adaptation strategies adopted by external suppliers and member states driven by corresponding perceptions and interests, see also Chaps. 1, 3, 5, 6, 8 and 9 in this volume.

2007 and adopted in 2009 as binding legislation to ensure the EU meets its climate and energy targets for the year 2020.⁵

Germany has relied on the support of other member states, including the UK, France and Italy. To achieve its climate goal, the [EU emissions trading system](#) (ETS) is the key tool for cutting GHG emissions. EU members have also taken on binding national targets for raising the share of [renewables](#) in their energy consumption by 2020, under the [Renewable Energy Directive](#) (European Commission, 2009). Member states have formulated national action plans for implementing their specific national targets; the latter vary, to reflect countries' differing starting points for renewables production and capacities for increasing it. A cooperation mechanism allows the EU as a whole to achieve its 20 per cent target (doubling the share of the 2010 level of 9.8 per cent) and a 10 per cent share of renewables in the transport sector.

In the early years of the development of an integrated climate and energy policy, Germany displayed remarkable success in shaping the EU's agenda by drawing on its horizontal relations with other EU member states that have supported Germany's push to fight climate change (e.g. the UK) and to promote renewable energy (e.g. Denmark). Since embarking on its *Energiewende*, Germany has been primarily occupied with this internal project for an energy transition. Efforts at Europeanization (Fischer & Geden, 2011) and internationalization of the German *Energiewende* have played a secondary role (Westphal, 2012).

However, when the Grand Coalition of CDU/CSU and SPD took over in 2013, a consistent and predictable EU framework became increasingly important as a precondition for *Energiewende* success (Fischer & Geden, 2014). A common strategy for energy and climate policy beyond 2020 was a pressing issue for Berlin. In October 2014, the EU-28 agreed on the 2030 framework. This strategy features qualified targets for climate mitigation, renewables and energy efficiency and builds on the 2020 targets. While raising (on paper) the ambitions for the EU as a whole, this decision emphasized the role of national strategies and intergovernmental mechanisms (Fischer, 2014, p. 1). The targets for 2030 include a 40 per cent cut in GHG emissions compared to 1990 levels, at least a 27 per cent share of renewable energy consumption and at least 27 per cent energy

⁵The package features a 20 per cent cut in greenhouse gas emission from 1990 levels, a 20 per cent target of EU energy from renewables and a 20 per cent improvement in energy efficiency.

savings as against the business-as-usual scenario (European Commission, 2018a). Implementation of the 2030 targets is left to intergovernmental bargaining and compensatory mechanisms. However, while climate and sustainability have remained major reference points for German energy policies, consensus within the EU has become shaky: discord over energy and climate goals has grown more pronounced, becoming an increasingly strong impediment to common EU policies and their implementation against the backdrop of economic and financial crises. In 2015, the EU agreed in its nationally determined contributions (NDC) under the Paris Agreement to reduce its total GHG emissions by at least 40 per cent by 2030, compared to 1990. The EU is mandated to negotiate for the member states in the spheres of trade and environment/climate. As energy is a cross-cutting policy field, efforts to move international energy and climate governance forward depend heavily on the mood in Brussels and other EU capitals. The NDC submitted is very ambiguous, with many openings. The EU-28 decided on the 40 per cent target of 2030; but internally there is considerable room for bargaining over the real effort-sharing among the EU-28/27 under the ‘EU bubble’. Of the 40 per cent, 43 per cent is to be achieved within the ETS-covered sector (electricity generation, large industries) and 30 per cent in non-ETS sectors. These obligations must be negotiated among the member states (European Commission, 2018b).

The 2030 framework for energy and climate builds on ‘formula compromises’ with considerable ambiguity, possibilities for changing the goals through consensual intergovernmental decisions and ‘extensive financial transfers and exemptions for the blocking states’ (Fischer, 2014, p. 3). Divisions among member states run deep. Germany, Italy, France, Spain, Sweden and Denmark are moving forward with transition, whereas the Central and Eastern European member states have been compensated substantially and have been granted exemptions from ambitious targets. The UK decision to exit the EU is likely to slow down decarbonization efforts: it fundamentally changes the equation in the EU in this sensitive policy area where deep-cutting cleavages underlie ambiguous formula compromises (Fischer & Geden, 2016, p. 1). Uncertainty is growing about future devotion to decarbonization, sustainability and the concrete level of political ambitions in the EU. Brexit is a major factor here, as is the persistent reluctance of East European member states to decarbonize their energy systems.

Moreover, after the ‘fracking revolution’ in the USA, and the shale gas and oil boom that resulted in very low energy prices for North America, the issue of economic competitiveness of the EU moved to the forefront, reinforced by the financial and economic crises. The TFEU of Lisbon emphasized the need for growth stemming from a sustainable economy. In Germany, the price gap across the Atlantic became an issue of concern, especially with respect to German industry (Folkerts-Landau, 2013). However, the debate on competitiveness is multifaceted and ambiguous in Germany. In the fossil-fuel sectors, competitive energy prices are seen as the function of a liquid and diversified market. Affordable and competitive energy costs are central to Germany’s industrial base. This requires a delicate balance between energy companies lobbying for profit maximization and the desire to maximize consumer surplus, economic prosperity and social welfare, as noted by Austvik in this volume. With regard to technology innovations in, for instance, new renewables and energy efficiency, high upfront capital costs are accepted as a given, framed under the narrative of green growth. Job creation has been part of this *Energiewende* narrative, too. The *Energiewende* is also framed as an impetus to technological and industrial developments. Finally, relatively high costs of fossil fuels have been seen as a facilitator and accelerator of the energy transition. On the EU level, the proposal of ‘Clean Energy for All Europeans’, the Winter Package of 2016 as part of building the EU Energy Union, aims at affordable, clean, stable and secure electricity supplies for all (European Commission, 2018c). This has meant a real paradigm shift, from a climate-driven energy policy towards a consumer-centred policy approach.

Unlike in Germany, energy security—natural gas security in particular—has shaped the EU agenda since enlargement in 2004. The Russia–Ukraine gas crises in 2006 and 2009, and then the Russian intervention in Ukraine and annexation of Crimea in 2014, have pushed the issue to the top of the energy agenda. The wish to diversify away from Russia was the major impetus behind the proposal for an Energy Union by Polish Prime Minister Donald Tusk in 2014, clearly a reaction to Russia’s annexation of Crimea and aggression in eastern Ukraine. The Energy Union became one of the ten priorities for the Juncker Commission. In the course of 2014/2015, the Energy Union’s five dimensions of energy security, market integration, decarbonization, energy efficiency and technology and innovation were broadened by integrating the energy objectives of all EU-28 member states. Germany’s emphasis is on the pillars regarding functioning markets, expansion of renewables, decarbonization and energy

efficiency; other member states have expressed interest in other aspects of energy cooperation.

Within the EU, regional cooperation among member states is seen as a way towards achieving an integrated market and the Energy Union. Cross-border cooperation and interconnections have been improving the overall level of energy security, as shown in energy stress tests conducted in 2014 (European Commission, 2018d). The gas stress test confirmed that EU cooperation would improve the security of supply situation in the EU as a whole. These findings were translated into the Winter Package of ‘Supply Security’ in 2015 and into the new security of gas supply regulation of 2017.

KEY SECTOR: GERMAN POWER AFFECTING THE NEIGHBOURS

The *Energiewende* has concentrated on power generation. The structural shifts are remarkable: nuclear phase-out, with seven nuclear stations remaining at the beginning of 2018,⁶ the phase-out of old lignite power plants and growing capacities in wind and solar power generation. At the same time, Germany remains the second largest coal producer and consumer in the EU, after neighbouring Poland (Gawlikowska-Fyk, Lang, Neuhoﬀ, Scholl, & Westphal, 2017). Coal accounted for 44 per cent of total electricity generation in Germany (BP, 2016, p. 33). Nuclear energy accounts for a smaller share than the EU average, whereas Germany’s reliance on imports for energy consumption is slightly higher (European Commission, 2017b). With regard to the power sector, Germany’s electricity interconnection level was 8.9 per cent in 2017, slightly behind the 10 per cent target for 2020 (ibid., p. 5).

Grid load patterns have changed dramatically due to the greater distances between generation and demand centres, the lack of domestic North–South interconnections and an energy-only market. The spatial effects stem from increasing physical cross-border and unintended ‘loop-flows’ across Germany’s neighbours. An end-stage is difficult to predict, a fact that itself complicates network planning as well as the adequacy of generation—locally, regionally, nationally and EU-wide (Puka & Szulecki, 2014).

The German *Energiewende* impacts heavily on neighbouring power systems, with unintended loop-flows across the borders challenging grid stability. The new centres of renewable power generation are located in the

⁶ www.bmub.bund.de/themen/atomenergie-strahlenschutz/nukleare-sicherheit/aufsicht-ueber-kernkraftwerke/kernkraftwerke-in-deutschland/.

north of Germany, whereas the load centres are in the southern and western parts of the country. Grid connections inside Germany have not yet been built, resulting in electrons flowing through the electricity lines of the neighbours. In order to deal with these side-effects, Germany, the Benelux countries and France created a Pentilateral Energy Forum in 2007, in which Austria joined in 2011. In 2015, the Forum successfully implemented flow-based market coupling on a voluntary basis.

The problem for market integration and cross-border trade stems from the fact that loop-flows reduce the transmission capacity that can be made available for trade between the countries, resulting in markets that are disconnected much of the time. Further, unannounced power flows create risks for secure system operation, result in additional costs and reduce the flexibility remaining for the integration of wind and solar power, for example, in Poland. The jointly pursued physical response of Poland and the Czech Republic—the construction of phase shifters—provides only partial and temporary relief (Gawlikowska-Fyk et al., 2017).

The unannounced power flows create significant complications for system operation in neighbouring countries. This issue was initially ignored in the German domestic debate or was—as in the case with Polish concerns—discounted as attempts to protect own coal-fired generation from competition by wind and solar power. Moreover, Germany is in the focus of other member states not only because unannounced power flows are viewed as an intrusion of German wind and solar power to the disadvantage of domestic power generation and system operation but also because of insufficient (or total lack of) communication of policy moves and decisions from Berlin. The abrupt closure of eight nuclear power stations in 2011 and the amendment to the Atomic Energy Law are clear examples here. In a similar step, in May 2017, the national regulatory authorities of Germany and Austria agreed to split their common bidding zone into two national zones (Gawlikowska-Fyk et al., 2017). This bilateral agreement encountered considerable criticism, because it had been achieved without coordination, without consultation with other states and with no technical justification. Finally, the bilateral agreement was also taken in advance of the regulatory decision-making process on the configuration of bidding zones in the EU, underway at the European Network of Transmission System Operators for Electricity (ENTSO-E), involving discussions of liquidity as well as the challenges for transition and transaction costs (*ibid.*). More closely coordinated

operation of the interconnected system to generate economic, sustainability and security benefits will remain difficult as long as electric energy security is defined in national terms.

These issues concerning cross-border electricity flows, integration and interconnection accentuate the larger question of electricity market design. An appropriate market design will be essential here, to create incentives for the early provision of generation and load patterns to transmission system operators (TSOs). This is a precondition for being able to predict flow patterns and loop-flows more reliably. Dealing with these issues can also help to build a more efficient and flexible regional energy system that will be easier to integrate with the rest of the EU single market (Jong & Groot, 2013; Palle, 2013). Closely related are the ongoing discussions about a new market regime, inside Germany but also in the EU. The paradox of the merit-order effect must be dealt with. German wholesale electricity prices are well below EU average, as is the market concentration index for power generation (European Commission, 2017b)—but end-consumer prices exceed the average. On the one hand, many neighbouring countries to Germany do not want to open their markets to (foreign) competition. On the other hand, Germany rejected the EU Commission's proposal to split the German power market into two price zones (Handelsblatt, 2016), on political grounds.

In sum, German power is affecting the neighbouring countries. On the one hand, this has increased the need for dialogue and coordination. On the other hand, this has not been supportive to Germany's influence on EU energy policies and the target of an accelerated deployment of renewables. The issue of loop-flows is seen as a result of systemic shortcomings in the German power grid and is thus not conducive to make a strong case for an accelerated deployment of renewables inside the EU.

NORD STREAM 2: MANAGING GAS RELATIONS WITH RUSSIA, POLICY COORDINATION WITH THE EU AND THE ISSUE OF SOLIDARITY

Nord Stream 2 provides another example of how diverging policy priorities and paradigms have played out in Germany's efforts to adapt to changing internal and external energy realities (see Barnes 2017; Bros et al., 2017; Goldthau, 2017; Lang & Westphal, 2017; Lissek, 2016; Vihma & Wigel, 2016). The Nord Stream 2 pipeline will start in Narva Bay on

Russian territory and the two new lines will connect the Russian Bovanenkovo gas field on the Yamal Peninsula—which is already on-stream with an annual production capacity of 115 billion cubic metres—to European gas markets. Offshore, from the outer limit of Russia's EEZ, the new pipeline is to follow the same course as Nord Stream 1, which came on stream in 2011 and 2012.

The Nord Stream 2 project has been progressing, with environmental impact assessments, national permitting procedures and international consultation, as well logistics for the construction work itself. The economic rationale is repeatedly emphasized (Hecking & Weiser, 2017; Prognos, 2017) pointing to depleting indigenous gas production and positive effects of cross-border flows on internal market integration in the EU. An argument that has also been stressed by Goldthau (2017) for Nord Stream 1, illustrating its contribution to West–East reverse-flows from Germany and Austria to Slovakia and Ukraine. Nevertheless, this project has become one of the most contentious issues on the EU energy agenda, souring also Germany's energy and political relations with some other member states.

Nord Stream 2 comes at high political cost for Germany, and the harm to relations with Germany's immediate eastern 'gas neighbours' is significant. There is strong resistance in Brussels and across the EU. Opponents argue that its realization will contradict the goals of the EU Energy Union, aid the foreign policy and economic course of Russia and further destabilize Ukraine, as well as undermine the paradigms of 'solidarity and trust' upon which the European Union and the Energy Union were founded (Lang & Westphal, 2017, pp. 49–54; Vihma & Wigel, 2016). In fact, it is difficult to estimate the costs and benefits for individual member states and to weigh them against each other. Whereas Eastern member states emphasize the negative effects for economic and political reasons, proponents and beneficiaries of a project like Nord Stream 2 turn such arguments on their head, saying that preventing the project on political grounds would show lack of solidarity by denying commercial and energy policy benefits for Germany and northwestern Europe. Moreover, within the EU there is no consensus as to policy priorities: a clear prioritization among target categories (security of supply, competition, sustainability) is lacking.

Germany has a strong influence on gas matters in the EU, be it only because of the size of its gas market of 88 bcm annually (in 2016), the geographic position and the growing function as a gas hub. In 2017, imports increased by 21 per cent and exports by 74 per cent (Lohmann, 2017: 32). As described above, the structure of Germany's gas market is

unique in the continental EU gas market. With regard to natural gas, wholesale prices are also below EU average, whereas household prices are average. These figures underline Germany's competitiveness within the EU as well as vis-à-vis Japan. However, real unit energy costs were two times higher than in the USA in 2014 (European Commission, 2017b, p. 21), and market concentration for wholesale gas supply is lower than in the EU (ibid., p. 6).

The German government's approach towards the gas market is guided by neo-liberalism—which is why the contentious Nord Stream 2 pipeline project has been framed in Germany as a commercial enterprise. Moreover, the pipeline is treated as a legal/regulatory issue under the competence of Germany as the landfall state (Lang & Westphal, 2017). In Germany, the Mining Authority (*Bergamt*) in Stralsund and the Federal Authority for Maritime Navigation and Hydrography (*Bundesamt für Seeschifffahrt und Hydrographie*) conduct the necessary investigations. An environmental impact assessment based on the EU EIA Directive is also part of the licensing process. This process of application, assessment and rejection/permission builds on a clear sequence of procedural steps which was also followed by Nord Stream 1. As noted, a stable and predictable legal and regulatory framework is an element in the attractiveness of the German marketplace. This is why Germany is alarmed by the Commission's approach to the project, which is seen as guided by political considerations and concerns for the Energy Union.

The project has come under close scrutiny by the European Commission, the Parliament and many member states and has created dissent in the EU. Brussels has examined the applicability of EU regulations on the offshore pipeline through the Baltic Sea (Fischer, 2017; Scholl & Westphal, 2017; Yafimava, 2017). The applicability of the Third Energy Package was rejected by the legal service of the Commission, and the Commission's attempt to get a negotiation mandate from the Council for 'a coherent regulatory framework' was also scrapped by the legal service of the Commission (Fischer, 2017; Yafimava, 2017). In November 2017, the Commission proposed an amendment to the EU's gas regulations to include interconnectors from third countries into the Directive (European Commission, 2017c).

The EU's toolbox contains regulation, besides political persuasion. Instrumentalizing the Third Energy Market Package as leverage for obstructing the construction and operation of the underwater pipeline for political reasons would be problematic with respect to the requirement for

the Commission to remain neutral in regulatory matters and the requirement for a transparent and predictable legal framework (Goldthau, 2017, p. 21) and poorly compatible with the Commission's function as guardian of the treaties. It would also be tantamount to a paradigm shift, contradicting the principles of free-market competition.

There is a division across the EU over state and market paradigms. Germany is an integral part of the well-integrated northwest European energy market, where a preference for a 'competitive diversification' (Clingendael, 2016) prevails and where future import needs drive companies to support Nord Stream 2. While Germany supports and propagates a market governed purely by commercial considerations, several neighbouring countries see growing trends towards renationalization and state influence. Moreover, the Third Energy Market Package is not fully implemented in all EU member states. Among the fiercest critics are the Eastern and Central European member states, Poland in particular. The commercial deal of creating a multinational consortium was obstructed in summer 2016 by the Polish antimonopoly authority UOKiK (Lang & Westphal, 2017, p. 32). The fact that the shareholder deal encountered persistent resistance, especially in Poland, led to the financing agreement in April 2017, whereby the European partner companies of Gazprom committed themselves to financing 50 per cent of the total cost. The EU will have 'to contain disintegrative tendencies and balance out the roles and responsibilities between the Commission, the member states and companies' (ibid., p. 35).

Finally, Germany's non-strategic approach to external energy relations is evident here. German policy has been informed by the idea of (inter) dependency—not import dependency. The discussions in the EU also make clear the deep divisions regarding the weighing of foreign policy considerations and the prioritization of economic and security considerations in relations with Russia. Regarding the Ukraine crises, Germany has pursued an approach of 'containment and cooperation' with Russia (Szabo, 2014). Germany has supported and pushed for EU sanctions while also emphasizing the value of economic trade and exchange. Gas relations are part of that pillar. Traditionally, economic interdependence has been seen as a means to political rapprochement or at least for raising the costs of potential deterioration in the relationship (Adomeit, 2012; Kundnani, 2015; Vogel, 2013). Thus far, the politically charged Nord Stream 2 project has been treated as a signal for cooperation and has thus been dealt with from a regulatory and economic position. Yet, while the project is widely seen in the context of the Ukraine crises, security con-

cerns and military considerations surround the planned construction in several EU member states, resulting in the securitization of natural gas issues. Sweden is on the alert because Russian military activity has increased in the Baltic Sea since 2014. Therefore, together with neighbouring Denmark, at the end of January 2017, it requested the European Commission to assess the legal and political dimensions of Nord Stream 2. That provided the initial spark for the Commission to seek a mandate for negotiations with Russia on a framework for the offshore pipeline. In late November 2017, Denmark passed a law amending the regulatory framework to allow for the blocking of Nord Stream 2 construction through Danish waters for security and foreign policy reasons.

The high level of disagreement in the EU may preclude opportunities for internal compromise and reconciliation. There is neither a consensus over balancing the three central objectives of EU energy policy (security of supply, competitiveness and sustainability: the ‘energy triangle’) nor a shared view as to how to proceed with Russia. For Germany the project comes at high political costs, one being a loss of ‘political capital and credibility’ inside the EU. There is amazement that Germany is on the one hand promoting an ‘Energiewende’ and on the other hand being supportive to a big fossil-fuel infrastructure project. First and foremost, however, Germany is perceived as acting at the expense of considerable security concerns by many other EU member states. In any case, Nord Stream 2 provides an example for the importance of horizontal relations inside the EU. It also illustrates that Germany’s room for political manoeuvre is increasingly constrained.

GERMAN AND EU APPROACHES TO EXTERNAL ENERGY GOVERNANCE

Germany’s external energy policies have focused on ‘managing mutual interdependence’, and an *Energiewende* foreign policy has been formulated and pursued. Germany’s external energy relations have three dimensions: bilateral, regional and multilateral.

The variable geometry of this policy is most evident in its bilateral energy partnerships and how they relate to multilateral governance. Meanwhile, different generations of strategic energy partnerships exist. The first generation is composed of partnerships with important energy-producing and transit countries and the second generation with other major net importing countries such as India, China and South Africa.

Finally, the third generation consists of partnerships based on renewables and energy efficiency, guided primarily by an *Energiewende* foreign policy (e.g. with African and Arabian countries).

Energy relations with Russia are the most contentious issue between the EU and Germany as described above. Germany must balance its own interests with those of Brussels and the other 27 EU member states. Multiple crises (Eurozone but most importantly migration) have sent energy further down on the current political agenda but have also deepened the rifts among the EU-28/27. Germany must also coordinate its variable geometry with the EU's external energy relations. EU regional energy governance follows concentric circles and is built upon an institutional and market-based approach. Examples of such policies are the European Economic Area,⁷ the European Neighbourhood Policy (ENP) and subsequently the Energy Community. Since 2009, the EU has increasingly concentrated on regional energy governance focused on the European Neighbourhood and to a lesser extent to the Mediterranean. Multilateral initiatives like the Energy Charter Process with its Energy Charter Treaty and the International Energy Charter signed in 2015 have been of peripheral importance to the EU-28. The deterioration in relations with Russia caused by the annexation of Crimea and military destabilization of eastern Ukraine is a major reason behind the shift of emphasis to the European Energy Community (Scholl & Westphal, 2017), with its focus on exporting the energy *acquis communautaire* to the Western Balkans, Ukraine and Moldova.

Climate and energy policy has become a disputed policy field in the EU. Many of Germany's bilateral initiatives aim to engage and integrate the emerging powers into the international energy architecture, to promote the international climate agenda and international renewable energy cooperation. In 2007, Germany used its double presidency in the EU Council and the G8 to push for an international and EU-wide integrated energy and climate agenda (Dröge, Geden, & Westphal, 2009; Westphal, 2015). This has been relevant with regard to the G8 plus G5 Heiligendamm process, and subsequently also to the International Energy Agency (IEA) and its engagement process, which has resulted in an association process.

Over the past decade, the EU has focused on the regional level and on exporting the energy *acquis communautaire*: its impact on global

⁷ Concerning the impact of national adaption strategies, see Chaps. 5 and 6 of this volume.

governance has been limited. For Germany this means two things: that coordinating climate and energy policies in the EU in the coming years will be time-consuming and difficult and that Germany should aim at building coalitions with willing EU and non-EU member states in order to push an energy transition. To pursue these strategic goals, Germany has used its G7 and G20 presidencies in the past to add new elements to the global renewable energy architecture, involving other organizations with tasks such as coordinated work on energy efficiency, dissemination of renewables and climate mitigation and adaptation. Further, Germany was the driving force behind REN21 and the creation of the International Renewable Energy Agency (IRENA), founded in January 2009. The creation of IRENA is clear proof of Germany's engagement in multilateral governance.

Germany supports a further strengthening of IRENA and enhancing cooperation on energy efficiency within the International Partnership for Energy Efficiency Cooperation (IPEEC). Moreover, in March 2016 State Secretary at the Ministry for Economics and Energy, Rainer Baake, made a plea for a necessary shift of investments (Baake, 2016).

Multilateralism has become an enduring element of its foreign (energy) policy. Traditionally, as part of its soft-power approach, Germany has pursued the idea (1) of a multilateral, norm- and market-based order. In order to keep this governance paradigm high on the agenda in a multipolar world, Germany needs the EU and also other powers. This is part of the variable geometry of energy partnerships. This reflects the deep appreciation of a multipolar world system and the acknowledgement that the new powers must be treated on par with the old ones regarding energy and climate policies. The Sustainable Development Goal Number 7—'Ensure access to affordable, reliable, sustainable and modern energy for all'—remains to be operationalized in Germany but also in the EU.

CONCLUSIONS

Germany is one of the most important energy agenda-setters within the EU and has therefore the 'power' to influence EU energy policies from within – but is also willing to pursue its policy goals by using other policy avenues, such as regional, bilateral and multilateral settings. In geoeconomic terms, Germany has remarkable statecraft power in reshaping energy markets because of its central market position, its attractive marketplace(s) and the sheer size of its economy.

Germany has a vital interest in multilateral governance and a rule-based order as well as in competitive and diversified energy markets. Not surprisingly, energy mix and the market structure shape politics. Germany's particular political energy economy explains the market- as well as the legal- and rule-based approach of the government. Path dependencies are important, constraining the room of manoeuvre for an energy transition. Germany has to have an interest in a stable and predictable framework, both with regard to decarbonization and with regard to a competitive and liberal energy market.

What has played out since 2007 are the above described paradigms of an *Energiewende* and a commercial, non-strategic, approach to energy security. Looking at the case studies, Germany has had a significant influence in kicking off an integrated political approach to climate and energy at the national, the EU and the global levels. This push has lost some momentum since then. One reason is of course the resistance of other member states, but Germany has also lost some persuasive power and political capital. Loop-flows have seriously affected neighbouring countries, undermining strong normative arguments for a transition based on renewable energy. Nord Stream 2 has also come at high political costs, lowering Germany's room of manoeuvre and highlighting the big controversies inside the EU over energy security and diversification.

However, its agenda-setting power is relational and depends on the convergence of perceptions, *leitmotifs* and interests in the sphere of energy. In that respect, Germany's persuasive power has faced limitations. Germany has power to project its agenda but encounters constraints in the complex web of horizontal and vertical interdependencies within the EU, where member states are (inter)connected in many ways. Moreover, with regard to the 'strategic triangle', there is no commonly agreed hierarchy of objectives in the EU, given the diverging economic positions, market structures, perceptions and historical backgrounds of the member states. Berlin has been an important policy agenda-setter at the EU level. This, however, has not proved to be a smooth, linear and straightforward process nor has adaptation to EU policies. More recently, Brussels and certain EU member states have limited Berlin's room for manoeuvre, and tensions may become increasingly evident as the Energy Union is further designed and filled with substance.

Germany's approach to energy and climate policy has been driven by idealism and conviction. However, a growing realism has been emerging as well, in view of the multiple crises in the EU, where climate and energy policies have become a disputed policy field.

REFERENCES

- Adomeit, H. (2012). German–Russian Relations: Balance Sheet Since 2000 and Perspectives Until 2025. *Note de CERFA* (98).
- AG Energiebilanzen. (2017a, December 22). *Energieverbrauch steigt 2017 leicht an* (*Pressedienst* Nr.5/2017). Retrieved January 15, 2018, <https://www.ag-energiebilanzen.de>
- AG Energiebilanzen. (2017b). *Strommix. Stromerzeugung nach Energieträgern 1990–2017*. Retrieved January 15, 2018, <https://www.ag-energiebilanzen.de>
- Andoura, S. (2013). *Energy Solidarity in Europe: From Independence to Interdependence*. Paris: Notre Europe/Jacques Delors Institute.
- Andoura, S., Hancher L., & Van der Woude, M. (2010). *Towards a European Energy Community: A Policy Proposal* (Notre Europe Studies & Research 76). Paris: Notre Europe/Jacques Delors Institute.
- Andres, C., Betzger, A., & van den Bongard, I. (2011). Das Ende der Deutschland AG. *Kredit und Kapital*, 44(2), 185–216.
- Baake, R. (2016, March 17). Die Energie der Zukunft; Vierter Monitoring-Bericht zur Energiewende. *Die Zeit*. www.bmwi.de/EN/Press/speeches, did=758,734.html.
- Barnes, A. (2017). *Nord Stream 2. Friend or Enemy of Energy Security in Europe?* (CEPS Policy Insights 46/2017). Brussels. Retrieved December 12, 2017, https://www.ceps.eu/system/files/PI2017_46_Barnes_NordStream2.pdf
- BMWi. (2010). *Energiekonzept für eine umweltschonende, zuverlässige und bezahlbare Energieversorgung 28 September*. Retrieved January 15, 2018, www.bmwi.de/Redaktion/DE/Downloads/E/energiekonzept-2010.html
- BMWi. (2017a). *Natural Gas Supply in Germany*. Retrieved January 5, 2018, <https://www.bmwi.de/Redaktion/EN/Textsammlungen/Energy/gas.html>
- BMWi. (2017b). *Overview of Legislation Governing Germany's Energy Supply System Key Strategies, Acts, Directives, and Regulations/Ordinances*. Retrieved February 5, 2018, <http://www.bmwi.de/Redaktion/EN/Publikationen/gesetzeskarte.html>
- BMWi. (n.d.). *Strategy and Objectives. A Systematic Approach to Success*. Retrieved January 15, 2018, www.bmwi.de/Redaktion/EN/Dossier/energy-transition.html
- BP. (2016). *BP Statistical Review of World Energy*. London: BP.
- Bros, A., Mitrova, T. & Westphal, K. (2017). *German–Russian Gas Relations. A Special Relationship in Troubled Waters* (SWP Research Paper 13).
- Bundesamt für Wirtschaft und Ausfuhrkontrolle. (2017). *RobölInfo 2017 November 2017* (Rohölimporte). Retrieved January 15, 2017, www.bafa.de/SharedDocs/Kurzmeldungen/DE/Energie/Rohoel/2017_11_rohloelinfo.html;jsessionid=1282BA83D60037855F671076F8889793.1_cid371
- Bundesnetzagentur and Bundeskartellamt. (2016). *Monitoringbericht 2015 gemäß § 63 Abs. 3 i.V. § 35 EnWG und § 48 Abs 3 i.V. § 53 Abs. 3 GWB* [Monitoring

- Report 2015 According to §63 par. 3 in Conjunction with §35 of Energy Industry Law and § 43 par.3 in Conjunction with §53 of the Act Against Restraints of Competition], 10 October 2015 (Editorial Amendments 21 March 2016), 253.
- Bundesverband Verbraucherzentrale. (2013). *Verbraucherinteressen in der Energiewende, Ergebnisse einer repräsentativen Befragung*, Berlin, Germany: Bundesverband Verbraucherzentrale. Retrieved January 12, 2018, https://www.vzbv.de/sites/default/files/downloads/Energiewende_Studie_lang_vzbv_2013.pdf
- Clingendael. (2016). *Prospects for Sustainable Diversification of the EU's Gas Supply* (CIEP Paper 2E). The Hague, Netherlands: Clingendael. http://www.clingendaelenergy.com/inc/upload/files/CIEP_paper_2016_2E_web.pdf
- Cox, R. H., & Dekanozishvili, M. (2015). German Efforts to Shape European Renewable Energy Policy. In J. Tosun, S. Biesenbender, & K. Schulze (Eds.), *Energy Policy Making in the EU. Building the Agenda* (pp. 167–184). Berlin, Germany: Springer.
- Dröge, S., Geden, O., & Westphal, K. (2009). Internationale Energie- und Klimapolitik. Spielräume für Akzentsetzungen der Bundesregierung. Spielräume für Akzentsetzungen der Bundesregierung. *SWP-Aktuell 2009/A*, 59.
- ENTSO-E. (2018). *Member Companies*. Retrieved January 18, 2018, <https://www.entsoe.eu/about-entso-e/inside-entso-e/member-companies/Pages/default.aspx>
- European Commission. (2009). *Renewable Energy Directive* (2009/28/EC). Retrieved January 15, 2018, <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32009L0028>
- European Commission. (2017a). *Third Report on the State of the Energy Union*. Retrieved January 12, 2018, https://ec.europa.eu/commission/publications/third-report-state-energy-union_en
- European Commission. (2017b). *Third Report on the State of the Energy Union. Country Factsheets – Germany*. Retrieved January 12, 2018, https://ec.europa.eu/commission/sites/beta-political/files/energy-union-factsheet-germany_en.pdf
- European Commission. (2017c). *Proposal for a Directive of the European Parliament and of the Council Amending Directive 2009/73/EC Concerning Common Rules for the Internal Market in Natural Gas*. Brussels. Retrieved January 19, 2018, https://ec.europa.eu/energy/sites/ener/files/documents/act_-_gas_dir_amendment_-_final.pdf
- European Commission. (2018a). *2030 Energy Strategy*. Retrieved January 18, 2018, <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/2030-energy-strategy>
- European Commission. (2018b). *2030 Climate & Energy Framework*. Retrieved January 22, 2018, https://ec.europa.eu/clima/policies/strategies/2030_en

- European Commission. (2018c). *Building the Energy Union*. Retrieved January 12, 2018, <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/building-energy-union>
- European Commission. (2018d). *Energy Security Strategy*. Retrieved January 16, 2018, <https://ec.europa.eu/energy/en/topics/energy-strategy-and-energy-union/energy-security-strategy>.
- Eurostat. (2017). *Energy Dependency Rate — All Products, 2005 and 2015*. Retrieved January 15, 2018, https://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_production_and_imports
- Federal Ministry for Environment. (2016). *A Climate Action Plan*. Retrieved December 12, 2017, www.bmub.bund.de/en/topics/climate-energy/climate/national-climate-policy/greenhouse-gas-neutral-germany-2050
- Fernleitungsnetzbetreiber Gas FNB. (2018). *Die BNetzA bestätigt den Szenariorahmen zum Netzentwicklungsplan Gas 2018–2028*. Retrieved January 18, 2018, https://www.fnb-gas.de/files/2017_08_11_nep_gas_2018-2028_szenariorahmen_final.pdf
- Fischer, S. (2014). Der neue EU-Rahmen für die Energie- und Klimapolitik bis 2030. Handlungsoptionen für die deutsche Energiewende-Politik. SWP-Aktuell 2014/A 73. Berlin, Germany: SWP.
- Fischer, S. (2017, November). Lost in Regulation: The EU and Nord Stream 2. *Policy Perspectives* (Vol. 5/5). Zurich: ETH Zurich, Center for Security Studies (CSS). <http://www.css.ethz.ch/content/dam/ethz/special-interest/gess/cis/center-for-security-studies/pdfs/PP5-5.pdf>
- Fischer, S., & Geden, O. (2011). *Europeanising the German Energy Transition* (SWP Comment 2011/C 33). Berlin, Germany: SWP.
- Fischer, S., & Geden, O. (2014). *Moving Targets. Die Verhandlungen über die Energie- und Klimapolitik-Ziele der EU nach 2020* (SWP-Studien 2014/S 01). Berlin, Germany: SWP.
- Fischer, S. & Geden, O. (2016, October). *Brexit: Implications for the EU's Energy and Climate Policy*. (CSS Analyses in Security Policy, No. 197).
- Folkerts-Landau, D. (2013). *Energiewende 2.0 – Don't Risk Competitiveness*. http://www.dbresearch.com/PROD/DBR_INTERNET_EN-PROD/PROD0000000000324468/Energiewende+2_0+-+don%27t+risk+competitiveness.PDF. Accessed 16 Jan 2018.
- Gawlikowska-Fyk, A., Lang, K. O., Neuhoﬀ, K., Scholl, E., & Westphal, K. (2017). Germany and Poland in the Energy Union: Moving from Controversies to Shared Interests? *European Energy Journal*, 2(2), 49–59.
- Green Cowles, M., Caporaso, J., & Risse, T. (Eds.). (2001). *Transforming Europe. Europeanization and Domestic Change*. Ithaca, US: Cornell University Press.
- Godzimirski, J. M. (2016). *EU Leadership in Energy and Environmental Governance: Global and Local Challenges and Responses*. Basingstoke, UK: Palgrave Macmillan.

- Goldthau, A. (2017). *Assessing Nord Stream 2: Regulation, Geopolitics & Energy Security in the EU, Central Eastern Europe & the UK*. London: European Centre for Energy and Resource Security (EUCERS) at Department of War Studies, King's College.
- Hecking, H., & Weiser, F. (2017, September). *Impacts of Nord Stream 2 on the EU Natural Gas Market, EWI Research Scenarios*. Cologne: EWI. Retrieved February 5, 2018, www.ewi.research-scenarios.de/cms/wp-content/uploads/2017/09/EWI-1163-17-Studie-Impacts-of-Nord-Stream-2-web.compressed.pdf
- Ischinger, W. (2018, January/February 1). Sie sehen nur die Spitze des Eisbergs. *Internationale Politik*, pp. 12–19. Retrieved January 17, 2018, <https://zeitschrift-ip.dgap.org/de/ip-die-zeitschrift/archiv/jahrgang-2018/januar-februar-2018/sie-sehen-nur-die-spitze-des-eisbergs>
- Jong, J. D., & Groot, K. (2013). *A Regional EU Energy Policy?*. Retrieved January 15, 2018, http://www.clingendaelenergy.com/inc/upload/files/CIEP_paper_2013_06_1.pdf
- Kundnani, H. (2015). Leaving the West Behind: Germany Looks East. *Foreign Affairs*, 94(January/February), 108–116.
- Lang, K.-O., & Westphal, K. (2017). *Nord Stream 2: A Political and Economic Contextualisation* (SWP Research Paper 3/2017). Berlin, Germany: SWP.
- Lissek, U. (2016). Nord Stream 2: Energy Security and Cooperation for Decades to Come. *Baltic Rim Economies*, (6), 49.
- Lohmann, H. (2006). *The German Path to Natural Gas Liberalisation: Is It a Special Case?* (NG 14/2006). Oxford: OIES.
- Lohmann, H. (2017). Topic of the Month: Gas Flows into Germany. *Ener/gate Gasmarkt*, 10, 32–34.
- Palle, A. (2013). *Regional Dimensions to Europe's Energy Integration* (SP 29). Oxford, UK: Oxford Institute for Energy Studies. Retrieved January 15, 2018, <http://www.oxfordenergy.org/wpcms/wp-content/uploads/2013/11/SP-29.pdf>
- Prognos. (2017). *Endbericht. Status und Perspektiven der europäischen Gasbilanz*. Untersuchung für die EU 28 und die Schweiz. Januar 2017. Retrieved February 5, 2018, https://www.prognos.com/uploads/tx_atwpubdb/20170406_Prognos_Studie_Europaeische_Gasbilanz_final.pdf
- Puka, L., & Szulecki, K. (2014). The Politics and Economics of Cross-Border Electricity Infrastructure: A Framework for Analysis. *Energy Research & Social Science*, 4, 124–134.
- Reuters (2018, January 24). Inside Power, Gas & Carbon.
- Roscher, F. (2016, May 5). EU Commission Considers Splitting Germany into Two Energy Price Zones. *Handelsblatt Global*. <https://global.handelsblatt.com/exclusive-e-u-commission-considers-splitting-germany-into-two-energy-price-zones-677224>. Accessed 5 February 2018.

- Sattich, T. (2016). Energy Imports, Geoeconomics, and Regional Coordination: The Case of Germany and Poland in the Baltic Energy System – Close Neighbours, Closer Cooperation? *International Journal of Energy Economics and Policy*, 6(4), 789–800.
- Scholl, E., & Westphal, K. (2017). *European Energy Security Reimagined. Mapping the Risks, Challenges and Opportunities of Changing Energy Geographies* (SWP Research Paper 2017/RP 04). Berlin, Germany: SWP.
- Statista. (2017). *Importabhängigkeit der Energieversorgung in Deutschland nach Energieträger im Jahr 2016*. <https://de.statista.com/statistik/daten/studie/251605/umfrage/importabhaengigkeit-der-deutschen-energieversorgung-nach-energietraeger/>. Accessed 15 Jan 2018.
- Szabo, S. F. (2014). Germany's Commercial Realism and the Russia Problem. *Survival*, 56(5), 117–128.
- Vihma, A., & Wigell, M. (2016). The Strategic Case against Nord Stream II. *Baltic Rim Economics* (6), 48.
- Vogel, H. (2013). Stabilität durch Evolution: Russlandpolitik Zwischen Konfrontation und Kooperation. *Osteuropa*, 63(8), 115–127.
- Westphal, K. (2012). *Globalising the German Energy Transition* (SWP-Comments 2012/C40). Berlin, Germany: SWP.
- Westphal, K. (2015). Germany's Energy Cooperation with Emerging Powers: Internationalizing the Energiewende. In M. Knodt, N. Piefer, & F. Müller (Eds.), *Challenges of European External Energy Governance with Emerging Powers* (pp. 87–100). Farnham, Ashgate.
- Yafimava, K. (2011). *The Transit Dimension of EU Energy Security*. Oxford, UK: Oxford Institute of Energy Studies/Oxford University Press.
- Yafimava, K. (2017). *The Council Legal Service's Assessment of the European Commission's Negotiating Mandate and What It Means for Nord Stream 2* (Energy Insight). Oxford, UK: Oxford Institute for Energy Studies.
- Yao, L., Shi, X., & Andrews-Speed, P. (2018). Conceptualization of Energy Security in Resource-Poor Economies: The Role of the Nature of Economy. *Energy Policy*, 114(2018), 394–402.



Poland: Coping with the Challenges of Decarbonization and Diversification

Aleksandra Gawlikowska-Fyk

INTRODUCTION

Poland's quest for improving its energy security has been an organizing motif in the country's energy policy and its relations with the EU (Kowalski & Kozera, 2009; Turowski, 2011). On deciding to join the EU in 2004, Poland also had to accept all energy-related EU acquis and the EU regulatory framework (outlined in Chap. 2 of this volume) as the main guidelines for its energy policy (IEA, 2016). Its heavy reliance on imports (mainly from Russia) of oil and gas led to the conviction that diversification should be the backbone of its domestic and external actions in the energy sphere. That has multiple consequences. Firstly, Poland is committed to using domestic coal resources, despite their negative environmental impacts. Secondly, as regards the EU's nexus of sustainable, competitive and secure energy goals, Poland has prioritized security. Thirdly, Poland has attempted to Europeanize the issue of energy security. The first and the second points have led to tensions with the EU. However, with the

A. Gawlikowska-Fyk (✉)

Polish Institute of International Affairs, Warsaw, Poland

e-mail: gawlikowska-fyk@pism.pl

© The Author(s) 2019

J. M. Godzimirski (ed.), *New Political Economy of Energy in Europe*, International Political Economy Series,
https://doi.org/10.1007/978-3-319-93360-3_8

third issue—Energy Union proposal—Poland was actually successful, thereby demonstrating its ability to engage in policy formation at the EU level, like big and influential members such as Germany. Today, with domestic-level problems in coal mining, rising environmental awareness and the need to escape the middle-income trap, the country must set about redefining its energy policy—possibly its climate policy as well. That may result in a gradual shift towards stringent EU climate and environmental rules and a greater focus on the cost of energy supplies.

Overall Energy Situation in Poland

When Poland joined the EU in 2004, gross domestic consumption amounted to 91.1 million tonnes of oil equivalent (mtoe), or 5.2 per cent of the EU-25 total. In 2015 consumption increased slightly to 95.4 mtoe, or 5.9 per cent of EU-28 (Eurostat, 2017). Table 8.1 shows Poland's energy mix after 1990, when the transformation of the economy started and the government submitted an official request (May 1990) to open negotiations for an association agreement with the European Communities (this was signed in 1991).

General trends have been the same both in the EU and in Poland—stable share of petroleum products, slow increase in gas consumption, gradual rise of renewables and a gradual (albeit slower than in the EU) decline in the use of fossil fuels. However, solid fuels still account for a half of energy consumption in Poland, as against the EU average of less than a fifth (Eurostat, 2017). Another difference is that nuclear energy does not feature in Poland's energy portfolio, although discussions of the rationale for building a nuclear power plant in Poland are ongoing.

Table 8.1 Poland: gross domestic consumption of energy, 1990–2015 (% of total consumption)

	1990	1995	2000	2005	2010	2015
Solid fuels	76	71	63	59	54	51
Total petroleum products	13	15	21	24	26	25
Gas	9	9	11	13	13	14
Renewable energy sources	2	4	4	5	7	9
Electricity and non-renewable waste	1	1	–1	–1	0	1

Source: Eurostat, 2017

Poland was the biggest energy importer among the new EU member states. In 2016 imports covered 97 per cent of oil (27.02 mtoe), 70 per cent of gas (13.8 bcm) and 10.6 per cent of hard coal¹ (8.3 million tonnes) consumption in Poland (Główny Urząd Statystyczny, 2017). As the energy mixes in Poland and in the EU differ, and Poland uses more locally available energy resources, the EU imported 54.3 per cent of total energy consumption in 2015, as against 30 per cent in the case of Poland. Yet, even though Polish energy import dependence is relatively low, it should be borne in mind that it was much lower in the early 1990s, because the country was a net exporter of coal. Other EU member states which use coal rely on imports, whereas in Poland most coal is mined domestically (for the time being at least). And it is this—both hard coal and lignite—that has given the country a sense of energy security if not energy self-sufficiency. However, when we consider the direction of imports, energy supplies to Poland appear far from secure: Russia—viewed as an unreliable partner—is the dominant supplier, providing 90 per cent of the oil, 76 per cent of gas and even 60 per cent of solid fuels imported by Poland (ARP Oddział Katowice, 2017). For that reason, the question of diversification of supply has been seen as pressing—and diversification away from Russia in particular has always been a highly politicized, even securitized, issue.

Thus, when it comes to the energy balance, Poland is a big consumer, heavily but gradually less and less reliant on domestically available fossil fuels and heavily dependent on energy imports from Russia. Polish governments have been trying to design an appropriate energy strategy. The latest document at the ministerial level—Polish Energy Policy until 2030—was adopted in 2009 (Ministerstwo Gospodarki, 2009; Uchwała, 2009). Attempts at revising this strategy were made in 2015; and since the change of government, a new policy has been announced by the Law and Justice Party (PiS) but has not yet been published. In order to assemble the competences needed to conduct a more effective energy policy, the PiS government decided to create the Ministry of Energy. That was generally assessed as a move in the right direction, especially because the government reconfigured the Ministry of Treasury, which had been responsible for supervision of state-owned energy companies. Also the Ministry of Economy which until 2015 had been formally responsible for coordination of the country's energy policy was dissolved and the newly established Ministry of Development was made responsible for several aspects of national energy policy.

¹ Most lignite is produced for domestic consumption.

Regarding energy policy, the Ministry of Energy plans to propose a policy strategy up to 2040 outlining general goals together with sectoral programmes for hard coal, lignite and nuclear energy. A broader picture is outlined in the National Responsible Development Strategy prepared by the Ministry of Development and adopted by the Council of Ministers on 14 February 2017 (Ministerstwo Rozwoju, 2016; Uchwała, 2017), which covers all sectors of economy, including energy. The Strategy is intended to help Poland achieve a more dynamic development path and avoid five identified ‘traps’: the middle-income trap, the lack-of-balance trap, the average-product trap, the demographic trap and the trap of weak institutions. This document sets out various measures intended to help Poland deal with energy-related challenges—such as the competitiveness of the Polish economy, sustainability as well security of supply. Among the goals mentioned are lower energy costs for industry and households, achieving lower energy consumption and thus lower dependence through modernization of the energy sector, diversification of gas and oil supplies, grid investment and energy infrastructure development, and support for low-carbon energy sources (see Gawlikowska-Fyk, Lang, Neuhoﬀ, Scholl, & Westphal, 2017).

Poland and the EU: Push-and-Pull Strategy

The general aims of Poland’s energy policy have been in line with those formulated at the EU level. In particular, Poland has shared the vision of achieving secure, sustainable and affordable energy. However, the country has seen its energy sector transition as a stepwise process with the ultimate goal of *decreasing* carbon intensity—not complete decarbonization. These matters were clearly explained in the already outdated energy policy of Poland (Ministerstwo Gospodarki, 2009; Uchwała, 2009), which assumed a gradual diversification of the energy mix, and the replacement of old coal power plants with more efficient ones. Today, taking into account domestic developments in the Polish coal sector (see below), and the urgency in attending the EU’s climate policy together with technical progress, Poland’s energy strategy is about to change.

Towards the Use of Locally Available Energy Resources

As noted, solid fuels still account for half of energy consumption in Poland, against less than one-fifth for the EU on average. However, it should also

be noted that in 1990 that share for Poland was 76 per cent and in the EU around 40 per cent. According to the International Energy Agency, Polish consumption of coal has fallen by 54 per cent, after peaking in 1987 (IEA, 2016). The economic significance of the coal sector has also decreased sharply, following the path of other industrial sectors in the period of Poland's transformation.

Hard-coal mining currently accounts for around 1 per cent of GDP, and its share in employment is 0.7 per cent (Bukowski et al., 2015). Thus, its influence on the welfare of the Polish population seems to be decreasing. Although hard-coal mining is viewed as a declining industry and has not contributed to the economic upswing in the country in the last decade, despite favourable conditions on the coal market (*ibid.*), discussions of Poland's fossil fuels rarely focus on the economics of the industry and its long-term development. The matter has been viewed through the lenses of political debate, with the emphasis on short-term issues or current affairs. Debates on the future of coal always flare up in pre-election periods—without resulting in the formulation of a long-term strategy for coal mining or for the use of coal in the power generation sector.

The current government still sees Polish coal as the main source of energy in the country's energy mix. In 2016 the Ministry of Energy released the Programme for Hard-Coal Mining up to 2030, which assumes both restructuring and opening up of new coal mines (Ministerstwo Energii, 2018). This strategy assumes that in 2030 Poland will still need between 56.5 and 86 million tonnes of hard coal to meet its energy needs. However, there may actually be two possible scenarios: (1) no action will be taken, which will lead to rather chaotic closure of mines that will no longer have a source of revenue, or (2) the government may decide on a gradual but decisive restructuring of unprofitable mines, closing unprofitable ones and relocating the employees to the most productive ones.

The situation differs with regard to lignite (brown coal/soft coal). Locally mined resources are the cheapest input for electricity production but are the most CO₂-intensive option. Low variable costs, accompanied by low CO₂ prices, allow lignite generation to maintain its role in the EU electricity mix—in Poland its share is around one-third (in Germany, one-fourth). For the time being, lignite is viewed as indispensable for guaranteeing safe and affordable energy supplies (Steffen, 2017). But, according to estimates, currently exploited deposits will be depleted in less than two decades (Forum for Energy Analysis, 2015), rendering the use of lignite for power generation impossible in Poland. To maintain supplies of lignite,

Poland would have to open new lignite surface mines. Local communities protested against open-pit mines in Poniec-Krobia-Oczkowice, Dęby Szlacheckie, Legnica, Gubin and Złoczewo and have remained opposed, so it seems highly unlikely that new sites will be opened.

The challenges facing hard-coal mining and the difficulty in opening new lignite deposits should provide strong incentives to search for opportunities to diversify the fuel base for electricity production. And regardless what happens concerning the development of coal mining in Poland, supply is not expected to be able to cover domestic demand for coal (Bukowski et al., 2015). That means that coal will cease to be the backbone of energy security in Poland. But will the national authorities and decision-makers manage to prevent diversification of Poland's energy mix towards a more sustainable one? That would make it possible to scale down coal use apace with the shrinking of the mining sector.

The foreseen coal gap—the consequence of geological, economic and societal (in the case of lignite) circumstances—might be a decisive factor in changing the energy mix and business models (Forum for Energy Analysis, 2015). The Minister of Energy announced in September 2017 that no more than one coal-fired power plant in Poland will be built in addition to those already under construction (Reuters, 2017). At the same time, Polish Energy Group, the leading electricity producer, decided to change the business plan for its Dolna Odra plant, opting for gas and not coal as fuel.

Although we should not draw far-reaching conclusions from those announcements, the signs of a different approach towards the role of coal in the Polish power sector are visible. As to the economics of coal mining in Poland, we might note two additional sets of factors. First, the market and regulatory conditions of EU climate and energy policy (including the ETS reform) can raise the cost of generating electricity from coal. Second, the business sector is well aware of the notable progress made towards market development and improved security of gas supply in Poland (with new interconnectors, LNG imports, the Baltic Pipe project). Decarbonization efforts interact with the issue of energy security and may have a direct bearing on debates on that issue. That also explains why security of gas supply is central to this debate.

Pushing Energy Security to the EU Level

Energy security has always been a priority in Polish energy policy but mainly in connection with the gas sector. That can be explained by the nature of the gas market—trade requires transport infrastructure, and gas was supplied under long-term agreements. The unidirectional and East–West-oriented infrastructure, together with a long-term contract signed in 1996 between Poland’s gas supplier, Polskie Górnictwo Naftowe i Gazownictwo (PGNiG), and the Russian gas exporter OAO Gazprom/ OOO ‘Gazprom export’, tied Poland to Russia as its sole source of gas imports. Additionally, the dominant player has abused its market position (as confirmed in the recent Infringement proceeding between the European Commission and Gazprom—Case COMP/39816 Upstream gas supplies in Central and Eastern Europe), preserving the dependence and preventing diversification. Only in 2011 did Poland open up the first interconnector with the EU countries: a pipeline connecting Poland with the Czech Republic (0.5 bcm import capacity) and another one with Germany in Lasów (1.5 bcm). However, the major game-changer was the LNG terminal in Świnoujście on the Baltic Sea coast, which made it possible to import considerable volumes of gas from other sources than Russia. The first decision on this LNG terminal was made in 2006. It was confirmed—as a strategic investment—in 2008 and can stand as an example of policy continuation despite the change of government. The terminal has been operational since late 2015. Gas is delivered under long-term contract with Qatar (valid until 2035) or bought on the spot market. Small volumes of gas were bought by PGNiG on the spot market (from Norway and Qatar), and in June 2017, Poland received the first deliveries from the USA. Currently more than one-third of the capacity (5 bcm) is utilized. With intensified competition among LNG exporters interested in entering the Polish market, shorter contracts with Qatar as well as further deliveries from the USA are in Poland’s interest: they may improve the country’s negotiating position in its dealings with current and future suppliers of this strategic energy commodity (Gawlikowska-Fyk & Godzimirski, 2017).

These diversification efforts have profoundly changed the gas sector in Poland. However, concerns about risks stemming from cooperation with Russia have made the current government wary of extending the current supply contract, due to terminate in 2022. Since the decision will have to be made three years before that time, already in 2016 the government

announced that its strategic aim as regards energy security is not to buy Russian gas but to turn instead to Norway as a reliable supplier and Denmark as a new transit partner (Reuters, 2016). In 2016, Poland decided to launch the Baltic Pipe project—a set of gas interconnections aimed at linking the Polish gas market with gas deposits on the Norwegian continental shelf via Denmark. That decision shows that Poland wants to diversify away from Russia, in order to improve energy security and mitigate the political risks connected with its heavy dependence on one supplier (Gawlikowska-Fyk & Godzimirski, 2017; Gazeta Bankowa, 2016).

Poland's diversification policy also has a broader scope, beyond national instruments and seeking to influence its EU policies. In 2014, as a direct result of the Ukraine–Russia crisis, Poland came up with an idea of the Energy Union. With that policy proposal, Poland sought to facilitate a stronger role for the EU in energy security. Despite two major gas crises resulting from disputes between Russia and Ukraine, EU energy policy was still dominated by the climate agenda (implementation of the first energy and climate package and discussions on its extension up to 2030) and the liberalization process (the 2009 Third Energy Package). Security of supply was clearly treated as a minor issue at the EU level (Pronińska, 2016). The only exception in the existing *acquis* was Regulation No 994/2010, on measures to safeguard security of gas supply. Therefore, Poland seized the chance and put forward its own Energy Union concept, resting on six pillars: infrastructure upgrades to support diversification of suppliers; enhancement of EU solidarity and security-of-supply mechanisms, such as better crisis management and optimized use of pipelines and storage across the EU; strengthening EU and member state bargaining power vis-à-vis external suppliers; development of indigenous energy sources in the EU; diversification of oil and gas supplies; and reinforcing the Energy Community (Ministerstwo Spraw Zagranicznych, 2014).

To understand the impact that Poland was able to exert on EU energy policy, we need to analyse the earlier attempts. Already in 2006 the first Law and Justice government proposed the establishment of 'Energy NATO' for better cooperation between the USA and the EU on security of gas supplies. That was before the shale gas revolution, and involvement from across the Atlantic was seen by the Polish government as mostly a political move intended to boost energy cooperation at the NATO level. Poland, as a medium-sized EU member, needed to convince larger states of the merits of a potentially costly strategy (Gawlikowska-Fyk, McQuay, & Parkes, 2014). And Poland failed, for several reasons. As a newcomer to the EU,

Poland had difficulties in manoeuvring and engaging properly with the EU institutions and was unable to leave its mark on the Green Paper on a European strategy for sustainable, competitive and secure energy then under discussion (European Commission, 2006). Further, the clear focus on security in this proposal, with its anti-Russian sentiments, at a time when the EU generally saw Russia as a reliable energy partner, did not help win support, among the member states or in the Commission. Lastly, the transatlantic orientation was linked to the idea of direct US involvement in European affairs—something that countries like France, or the Commission, opposed from the outset (Gawlikowska-Fyk et al., 2014).

With the new government formed in 2007, the priorities in energy security did not change, but the emphasis on internationalization of the energy security agenda lessened. Poland concentrated on domestic instruments to improve its own energy security. The focus was on diversification, with the major project being the Świnoujście LNG terminal. The situation changed dramatically after the Ukraine–Russia crisis and especially with the annexation of Crimea. Polish Prime Minister at the time, Donald Tusk, published a famous article in the *Financial Times* calling for a united Europe to create an Energy Union to end Russia’s energy stranglehold (Tusk, 2014). Simultaneously, a detailed non-paper (Roadmap Towards an Energy Union for Europe) was promoted across EU capitals and within the Commission (Ministerstwo Spraw Zagranicznych, 2014). The plan consisted of six points, but two of them attracted most attention. The first, rehabilitation of fossil fuels, was vociferously opposed by greener Europe—but it reflected Poland’s natural conditions, so easily neglected across the EU. The second aimed at strengthening the EU’s bargaining power vis-à-vis external suppliers: the EU was to use its market power to negotiate the conditions of trade with dominant suppliers.

What is often overlooked is that the Polish proposal raised other important issues—like the development of an internal market as a backbone of the plan, transparency of contracts, adherence to and reinforcement of legislation—and that was what made it possible for the idea to enter the EU mindset. The newly elected European Parliament and the reformed Commission, under Jean-Claude Juncker, embraced and eventually took up the Energy Union concept. The Energy Union idea can thus be seen as the proposal of two major policy entrepreneurs—Poland’s Donald Tusk and Jean-Claude Juncker of Luxembourg (Szulecki, Fischer, Gullberg, & Sartor, 2016). The Communication on Energy Union (European Commission, 2015) put pressure on issues such as increased

energy efficiency, reduced demand and deployment of renewable energy. The security-of-supply agenda is not seen as a pressing issue. Nevertheless, the eventual incarnation of Energy Union will involve linking energy and climate issues—in line with previous developments at the EU level. Therefore, it is hardly surprising that the Commission transformed the idea to fit to the current and successive climate and energy packages. This development is sometimes seen as a diplomatic failure on the part of Poland (Szulecki et al. 2016). However, the Polish proposal was not meant to replace EU energy and climate policy but to draw more attention to the long-underprioritized issue of energy security.

By means of the modified Energy Union, the Commission wanted to make the EU not only greener but also more secure. Even though common gas purchases have not been introduced, the proposal has already managed to get security of supply moved to the top of the Commission's agenda. It seems that the Commission, when presenting its 2015 strategy on Energy Union, was both hard-pressed and empowered to come with ideas on how to address the asymmetric dependence on external suppliers. Poland provided the initial push, the Commission acted as policy entrepreneur, and Poland facilitated the process. It sought way of developing dialogue with gas exporters and a new LNG strategy for the EU. The Commission established the Central and South-Eastern Europe Connectivity (CESEC) High Level Group in Sofia, with the aim of ensuring three different sources of gas in the region and creating a vertical gas corridor linking Bulgaria, Greece and Romania.

Energy diplomacy is meaningful; however, it is also important to note the scope of legislation review. The list of Projects of Common Interests was modified and updated, and the idea that the investment increases security of supply was retained. The Commission also promised to review the rules on mutual information on intergovernmental agreements and to revise regulations on security of gas supply. The Commission has delivered on both—a significant first step in the process of implementing the Energy Union.

As regards formulating energy policy proposals on the EU level, the Polish government formed after the 2015 elections appears less engaged with EU institutions and other member states. That might be because energy security agenda at the EU level has now progressed towards the realization stage and that Poland is concentrating more on domestic matters of relevance to the country and the region.

And it is the internationalization, not the Europeanization, of security of gas supply that is a primary concern of the current government. The shale gas revolution in the USA and the Trump's administration interest in selling gas abroad have facilitated Poland's activities, allowing them to take more tangible shape. The USA is viewed not only as a political actor to engage with but also as a potential—indeed, actual—supplier of gas. The first delivery of LNG from the USA took place on 8 June 2017, but it was the signing of the medium-term contract with the Texas-based Cheniere Energy Incorporation in November 2017 on supplies of US shale gas to Poland that was the highly symbolic breakthrough. From a commercial point of view, this was possible due to changes on the global LNG market and the increased availability of gas through competitive spot contracts for smaller importers like Poland (Wiśniewski, 2017). The impact of such diversification endeavours is not limited to Poland: the new flexibility in buying gas also meant greater flexibility for selling it. Gas can be further delivered to Ukraine. Indeed, precisely that underlies the future business strategy of PGNiG—resale of gas, turning Poland into a regional gas hub.

This determination to improve regional energy security demonstrated in Poland's persistent efforts to get access to non-Russian gas has also resulted in a new regional concept—the Three Seas Initiative. Signed on 25 August 2016, this joint declaration of 12 EU countries² stipulates that these countries are to expand their energy cooperation, thereby contributing to making the EU more resilient (Joint Statement, 2016). As the Central and Eastern European countries have distinct potential for investment in gas infrastructure to meet expected growth in demand, the initiative is expected to facilitate policy coordination among its participants and promote the interests of the region. The aim is not only to strengthen energy security but also to develop a competitive gas market (Bieliszczuk, 2017).

Nevertheless, Poland remains engaged with the EU's discussion and legislation proceedings concerning the gas sector. Indeed, the core of Poland's proposed Energy Union concept was the revision of security-of-supply regulation—now successfully carried out. The new regulation, adopted in September 2017, sets more stringent rules for cooperation in the event of crisis and—for the first time in the EU *acquis communautaire*—offers a legal definition of 'solidarity'. All this has demonstrated how a middle-sized

² Austria, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia.

country can influence the EU energy agenda within a system of governance based on open method of coordination—‘experimentalist governance’.

However, the area of energy security is not without tensions between Poland and EU institutions and certain member states. The major bone of contention has been the Nord Stream 2 project, running from Russia’s Leningrad region across the Baltic Sea to northern Germany. Poland sees the project as exemplifying special German–Russian relations with profound geopolitical consequences, despite being presented as a purely commercial endeavour. Poland is concerned that the project will block its own and the region’s efforts to diversify energy supplies and that it will affect Ukraine heavily and undermine EU solidarity and unity in energy policy. For these reasons, Poland has been opposing the project and has held that EU internal gas market rules should govern its realization. Under that condition (which would entail full application of the Third Energy Package), Poland agreed that the Commission should negotiate a mandate with Russia. Poland also backs the Commission’s proposal to change the EU legislation so that it clearly applies to gas pipelines used for the import of gas into the Union. However, Poland also criticized the Commission’s hesitation towards implementation of the EU *acquis*; the Polish government decided to take the Commission to the EU Court of Justice for a ruling on the decision to grant exemption to the OPAL pipeline, which is used to transport natural gas from Nord Stream pipeline and runs from German Greifswald in the Baltic, along Poland’s western border, to Brandov in the Czech Republic. Here we may say that Poland has tried to force the EU to take a more active stance towards coordination of external energy policy and implement its away-from-Russia diversification efforts.

However, in general, Polish energy security interests have benefited from the EU’s policy and its awareness of energy security issues. In recent years, medium-sized countries have managed to be more effective in promoting their energy interests: energy solidarity; financial support for often-lacking energy infrastructure, including measures to enable reverse flows of gas; and showing flexibility as regards meeting energy and climate goals (Pronińska, 2016).

The EU’s Push Strategy, Polish Scepticism to the Green Energy Agenda

The EU’s environmental policy agenda was shaped by a handful of countries with the capacity for successful advocacy of the introduction of common

instruments to fight environmental problems. Other member states then followed, eventually adopting more stringent regulations than justified by their own domestic situations (see Sbragia, 1996). This situation has been referred to as involving a *leader-laggard dynamic* (Haas, 1992). During the 1980s and 1990s, the ‘push-and-pull’ path of policy-making was evident, with the leader states—Germany, Denmark and the Netherlands—pushing their progressive agendas to the EU level in order not to weaken their competitiveness as a result of the introduction of high domestic standards (Sbragia, 1996). Other countries followed suit.

After entering the EU, Poland ended up in the bloc’s ‘laggards’ group as regards environmental and climate policy—together with most of the other member states. The ‘green’ agenda was pushed down from the EU level: indeed, Poland would not have championed it to such an extent without this push from above. Like the other states that joined the EU in 2004 (and 2007), Poland was obliged to implement the entire environmental *acquis communautaire* without transition periods and exemptions. The costs were significant for those economies; the general objections were very similar to those raised by many member states back in the 1990s, when Spain’s scepticism was driven by fears that environmental protection was being imposed by the ‘rich North’ on the ‘poor South’, and British opposition was driven by fears that the introduction of environmental measures could impact negatively on economic growth and competitiveness.

There are three main reasons why Poland can be accounted to the laggard group and why the country has remained sceptical towards the EU environmental energy agenda. First, since the countries of Central and Eastern Europe are lower in GDP, they fear that stringent environment and climate measures may hamper economic growth, delaying the process of catching up with more developed EU economies. Yet, when Poland applied to join the EU in the early 1990s, it expected that membership would accelerate its own economic growth. And at that time, the core task of what was then the European Communities was exactly that—to enhance growth by creating a Single European Market and environmental legislation linked mainly to trade harmonization (Sbragia, 1996). Then, with the rise of the environmental and climate change agenda, scepticism on the part of countries like Poland resulted in part from fears that the EU would be emplacing additional burdens on their less-developed economies. Whereas the leaders within the EU saw promoting the environment or climate-friendly regulations as a way of levelling the playing field, Poland

found itself forced to meet costs of similarly high standards that were not demanded by its own public.

Second, environmental policy has achieved a much greater prominence in the EU than 30 years ago, and its expanded agenda now impacts not merely individual issues (like the need to deal with acid precipitation or lead in petrol) but the whole economy. There are new EU rules on water, air, waste, chemical, nature and noise pollution (Lenschow, 2005). In addition, the Commission has focused on broader topics such as climate change, biodiversity and, recently, on circular economy. Achieving agreement on policy instruments and their implementation now poses a far greater challenge. This unprecedented growth of the environmental and climate *acquis* again gives rise to the issue of the costs of compliance, which are not equally distributed among the member states. Poland feels the imbalance between politics, interests and norms of the ‘green’ countries, with pressures for economic development and financial restraint.

Third, the biggest challenges for Poland come from regulations concerning the power sector. Because of the high share of hard coal and lignite in the energy mix, the country’s situation is unique, and so objections are also greater. Whereas many EU countries find sectoral regulations (mainly the EU Emissions Trading System) unsatisfactory, and are pressing for change in order to obtain a higher carbon price, Poland holds that, under the existing rules, it has been taking significant steps to decrease carbon emissions, despite the lack of domestic political support. A recent case concerns the proposed regulation (within the ‘Clean Energy for All Europeans’ Package) on the benchmark fuel-emission standard if a member state wishes to introduce capacity markets. Since the proposed cap of 550 g/kWh would impact mainly Polish plans to introduce capacity remuneration, the government has argued that this measure unfairly targets Poland, given the structural factors shaping its energy sector. Thus, Poland took the lead in working to get that provision weakened and managed to work out the compromise that resulted in postponement of the introduction of the cap.

For Poland today, the situation is ambiguous. On the one hand, the current government has, in many respects, maintained its firm stance against climate policy as regards energy policy, with an even tougher narrative. On the other hand, quite a few environmental protection rules, also in the energy sector, have not provoked much controversy in Poland. For example, despite the significant costs of compliance, the Polish power and heat sector has been introducing the standards laid down in the EU’s Industrial Emissions Directive and its predecessors.

Although Poland and the EU may appear to be on a collision course when it comes to the climate agenda, consensus may indeed be possible. That said, the development of environmental and climate policy has been attributed to many different factors, and the composition of the group of protagonists and antagonists has been quite fluid (Lenschow, 2005). Indeed, for that reason Lenschow predicted that newer member states could propose a ‘new governance agenda’ while blocking the old one: the critics could become reformers. Such an offensive proposal may regard transport sector and Poland’s ambitions to develop electromobility (explained below).

It might be too naïve to expect Poland to transform its approach to environmental and climate policy, but it is well on the way to meeting targets for greenhouse gas emission reduction and the share of renewables in its energy mix. In order to meet these commitments, Poland has increased the efficiency of coal-fired power plants and cofiring biomass in coal plants: the latter treated in Poland as a primary measure aimed at increasing the share of renewables in the country’s energy mix.

Poland’s general approach to energy mix remains differentiated. Problems like the deteriorating economics of coal mining in Poland, the urgent need for diversification in the energy mix and—not least—current regulatory conditions in the EU regarding climate and energy policy all have resulted in ongoing re-evaluations of Poland’s future energy options. The possible introduction of emission limits for conventional technologies in capacity mechanisms and the progressive reinforcement of the ETS system facilitate the introduction of more gas, possibly also nuclear energy in the power sector. It should be underlined that Poland is on the verge of energy transition, but discussion of the possible options is still ongoing.

Even stronger signs of change can be attributed to two interrelated but distinct issues: smog and electromobility. The issue of air pollution has grown increasingly prominent in domestic-level debates. In the cities most affected by problems of air pollution, there is now much greater voter awareness but also nuanced perceptions of the problem and the solutions presented. In Cracow, which is heavily affected by smog, the poor quality of air was a major topic in local elections already in 2014, and each candidate presented his or her own views on how to tackle the problem (Bytner, 2016). But only the severe air pollution in Polish cities in the winter of 2016/2017 incentivized a nationwide debate on environmental protection and health. One result is that some local communities have produced restrictions on individual coal-burning furnaces. Here we see how a bottom-up

approach may lead to substantial attitudinal changes in Polish society and among the political class. Tangible and relatively close problems have shifted the focus to issues connected with environmental and climate protection—not only locally but also at the level of the central government. This is shown by the 2017 amendment to the environmental protection law (the ‘anti-smog law’) that empowers the local authorities to introduce technical, emission and quality standards for fuel combustion installations. That is also the main reason why the idea of establishing the post of Minister for Clean Air has been launched by Prime Minister Mateusz Morawiecki, who pointed out that 48 thousand Poles die prematurely due to air pollution in the country (Morawiecki, 2017).

That debate provided arguments not only against coal but also in favour of low-emission transport. Several cities in Poland have already decided to shift their fleets to LNG/CNG use. But it is the idea of *electromobility* (the use of full/hybrid electric vehicles) that has gained special attention; problems with air quality have provided additional arguments for its proponents. There seems to be consensus in Poland, at least at the very first stage of introducing the concept of e-mobility, that this is the right way to go. Electromobility is deemed advantageous for various reasons: it can reduce dependence on imported oil, aid the modernization of energy sector, stabilize the power system and—importantly—improve urban air quality (Ministerstwo Rozwoju, 2016). Poland aims to have one million electric vehicles on the road by 2025. The government has announced plans for introducing new laws to regulate—and incentives to promote—the further development of electric vehicles (Gawlikowska-Fyk et al., 2017). The aim is also to improve the country’s image—to present Poland no longer as a laggard and a country obstructing progress in climate policy but as a leader in the development of new technology, a country with a positive climate and environmental agenda (Bolesta & Sipiński, 2016).

CONCLUSIONS

Historically, Poland’s energy mix has been shaped by its resource endowment and by decisions made by Polish policy-makers promoting the use of domestically available energy resources, thereby preventing the development of other parts of energy system. The heritage of hard coal and lignite, combined with high dependence on Russia as the main supplier (oil,

gas and even coal), led to a situation where Poland's interests diverged considerably from the EU agenda—thereby also creating some tensions. However, as an EU member, Poland has followed an energy policy embedded in the EU's strategy and created alongside the latter. Poland agrees that energy must be secure, competitive and sustainable. However, the ranking of priorities differs. Decarbonization (for Poland, emissions reductions) has been significantly lower on the agenda, while security of supply has been considerably higher. Issues concerning competition have generally been treated on equal terms as in other EU member states. However, the goals of Poland's energy policy are deeply affected by security considerations.

After joining the EU as a full member in 2004, Poland has followed an energy strategy responsive to the EU's energy and climate/environmental aims. In many respects Poland has been catching up by introducing strict EU rules, often stricter than those demanded by its own public.

With the Energy Union concept, Poland offered a positive agenda in the sphere of energy security and managed to make a significant mark on EU energy policy. Moreover, the Energy Union concept seems to have inspired and shaped energy governance in the EU and the Commission. As the launch of this project coincided with the election campaign to the European Parliament, it also influenced the Juncker agenda. The new Commission took up the idea and included it among its priorities. After becoming President of the European Commission, Jean-Claude Juncker elevated the topic further, creating the position of Vice President responsible for the Energy Union. In this post, Maroš Šefčovič has successfully implemented the concept, with the original Polish idea now transformed into a far broader energy and climate policy agenda.

Overall, Poland appears to be following the path of policy formation demonstrated both by larger and smaller countries, as outlined in Chap. 1 of this volume. With its Energy Union involvement, Poland has managed to leave its mark on EU energy policy, similarly to the strategy of Europeanization of domestic policies pursued by France or Germany. That being said, Poland itself is in no position to exert major strategic influence on the EU's climate and environment laws. Thus, we must conclude that Europeanization exerts greater influence on Polish policies than the other way around.

REFERENCES

- ARP Oddział Katowice. (2017). *Informacja o sytuacji ekonomiczno-finansowej górnictwa węgla kamiennego w okresie 4 miesięcy 2017 r* [Information on the economic and financial situation of hard coal mining in the 4 months of 2017]. www.kadra.org.pl/wp-content/uploads/2017/06/Sytuacja-w-sektorze-g%C3%B3rnictwa-w%C4%99gla-kamiennego.doc. Retrieved 3 Oct 2017.
- Bieliszczuk, B. (2017). Three Seas Initiative: Benefits for regional gas markets and the EU. *Bulletin PISM*, 63(1003), 30 June 2017. <http://www.pism.pl/publications/bulletin/no-63-1003>. Retrieved 21 Nov 2017.
- Bolesta, K., & Sipiński, D. (2016). *Silent revolution in electricity sector*. Electromobility in Poland. https://www.politykainsight.pl/multimedia/_resource/res/20123070. Retrieved 12 Oct 2017.
- Bukowski, M., Maśnicki, J., Śniegocki, A., & Trzeciakowski, R. (2015). Polski węgiel: Quo Vadis? Perspektywy rozwoju górnictwa węgla kamiennego w Polsce. http://wise-europa.eu/wp-content/uploads/2016/03/wegiel_raport_15_06_elektroniczny.pdf. Retrieved 17 Aug 2017.
- Bytner, P. (2016). Postrzeganie zagadnień bezpieczeństwa energetycznego i polityki klimatycznej na szczeblu lokalnym na podstawie kampanii wyborczej przed wyborami samorządowymi w Polsce w 2014 roku. *International and Security Studies* (Warsaw), 1, 69–84.
- European Commission. (2006). *Green paper. A European strategy for sustainable, competitive and secure energy*. Brussels, 8.3.2006. COM/2006/105 final.
- European Commission. (2015). *A framework strategy for a resilient Energy Union with a forward-looking climate change policy*. Brussels, 25.2.2015. COM/2015/080 final.
- Eurostat. (2017). <http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do>. Retrieved 22 Aug 2017.
- Forum for Energy Analysis. (2015). *Polish power sector riding the wave of mega-trends*. http://forum-energii.eu/files/file_add/file_add-36.pdf. Retrieved 25 Aug 2017.
- Gawlikowska-Fyk, A., & Godzimirski, J. M. (2017). *Gas security in the pipeline – Expectations and realities* (PISM policy paper). <http://www.pism.pl/Publications/PISM-Policy-Paper-no-155#>. Retrieved 10 Sept 2017.
- Gawlikowska-Fyk, A., Lang, K.-O., Neuhoﬀ, K., Scholl, E., & Westphal, K. (2017). Germany and Poland in the Energy Union. Moving from controversies to shared interests? *European Energy Journal*, 7(2), 49–59.
- Gawlikowska-Fyk, A., McQuay, M., & Parkes, R. (2014). *A dummy's guide to forming an Energy Union* (PISM policy paper). http://www.pism.pl/files/?id_plik=17539
- Gazeta Bankowa. (2016). *Norweski wariant 3.0* [Norwegian Variant 3.0]. *Gazeta Bankowa*, 5 March 2016. <http://www.gb.pl/norweski-wariant-3-0-pnews-727.html>. Retrieved 20 Jan 2018.

- Główny Urząd Statystyczny. (2017). *Zużycie paliw i nośników energii w 2016 r* [Consumption of fuels and energy carriers in 2016]. http://stat.gov.pl/download/gfx/portalinformacyjny/pl/defaultaktualnosci/5485/1/5/1/energia_2017.pdf. Retrieved 2 Sept 2017.
- Haas, P. (1992). Introduction: Epistemic communities and international policy coordination. *International Organization*, 46(1), 1–35. <https://doi.org/10.1017/S0020818300001442>.
- IEA. (2016). *Energy policies of IEA countries. Poland 2016 review*. Paris: International Energy Agency.
- Joint Statement on The Three Seas Initiative (The Dubrovnik Statement), 25 August 2016., [http://predsjednica.hr/files/The%20Joint%20Statement%20on%20The%20Three%20Seas%20Initiative\(1\).pdf](http://predsjednica.hr/files/The%20Joint%20Statement%20on%20The%20Three%20Seas%20Initiative(1).pdf). Retrieved 27 Nov 2017.
- Kowalski, J., & Kozera, J. (2009). Mapa Zagrożeń Bezpieczeństwa Energetycznego RP w Sektorach Ropy Naftowej i Gazu Ziarnnego. *Bezpieczeństwo Narodowe, I-II*(9–10), 301–324.
- Lenschow, A. (2005). Environmental policy. Contending dynamics of policy change. In H. Wallace, W. Wallace & M.A. Pollack, Policy making in the European Union, 5th ed. Oxford: Oxford University Press (pp. 305–327).
- Ministerstwo Energii. (2018). *Program dla sektora górnictwa węgla kamiennego w Polsce* [Programme for hard-coal mining up to 2030]. https://bip.me.gov.pl/files/upload/27601/projekt%20Programu%20GWK_12.01.2018%20RM.pdf. Retrieved 23 Jan 2018.
- Ministerstwo Gospodarki. (2009). *Polityka Energetyczna Polski Do 2030 Roku* [Energy policy of Poland until 2030]. Warsaw: Ministerstwo Gospodarki RP. <http://www.mg.gov.pl/NR/rdoonlyres/5474D2C2-2306-42B0-B15A-7D3E4E61D1D8/58593/uchwala.pdf>
- Ministerstwo Rozwoju. (2016). *Strategia Na Rzecz Odpowiedzialnego Rozwoju do roku 2020 (z perspektywą do 2030)* [Responsible development strategy (with perspective up to 2030)]. <https://www.mr.gov.pl/media/48672/SOR.pdf>. Retrieved 12 Dec 2017.
- Ministerstwo Spraw Zagranicznych. (2014). *Roadmap towards an Energy Union for Europe. Non-paper addressing the EU's energy dependency challenges*. <http://www.msz.gov.pl/resource/34efc44a-3b67-4f5e-b360-ad7c71082604:JCR>. Retrieved 28 Nov 2017.
- Morawiecki, M. (2017). Policy statement by Prime Minister Mateusz Morawiecki: Stenographic record. <https://www.premier.gov.pl/en/policy-statement-by-prime-minister-mateusz-morawiecki-stenographic-record.html>
- Pronińska, K. (2016). Polityka energetyczna w warunkach zmiany modelu integracji europejskiej. In T. G. Grosse (Ed.), *Polityki europejskie w dobie kryzysu* (pp. 197–226). Warsaw: Wydawnictwo Naukowe SCHOLAR Retrieved 22 Sept 2017.

- Reuters. (2016). *Poland aims to end long-term gas supplies from Russia after 2022*. Reuters, 1 June 2016. <https://uk.reuters.com/article/us-eeurope-summit/poland-aims-to-end-long-term-gas-supplies-from-russia-after-2022-idUKKC-N0YM2QJ>. Retrieved 13 Aug 2017.
- Reuters. (2017). *Poland may have first nuclear power plant by 2029*. Reuters, 6 September 2017. <https://www.reuters.com/article/poland-nuclear/poland-may-have-first-nuclear-power-plant-by-2029-idUSL8N1LN222>. Retrieved 3 Oct 2017.
- Sbragia, A. (1996). Environmental policy: The ‘push–pull’ of policy-making. In H. Wallace & W. Wallace (Eds.), *Policy-making in the European Union* (pp. 235–255). Oxford: Oxford University Press.
- Steffen, U. (2017). *German–Polish energy relations from the point of view of Brandenburg*. Presentation held in Brussels, 17 May 2017. Not published.
- Szulecki, K., Fischer, S., Gullberg, A. T., & Sartor, O. (2016). Shaping the ‘Energy Union’: Between national positions and governance innovation in EU energy and climate policy. *Climate Policy*, 16, 548–567. <https://doi.org/10.1080/14693062.2015.1135100>.
- Turowski, P. (2011). Bezpieczeństwo Energetyczne – Priorytet Polskiej Prezydencji [Energy security: Priority of the Polish Presidency] *Bezpieczeństwo Narodowe*, II(18), 149–159.
- Tusk, D. (2014). A united Europe can end Russia’s energy stranglehold. *Financial Times*, 14 April.
- Uchwała. (2009). Uchwała nr 202/2009 Rady Ministrów z dnia 10 listopada 2009 r. w sprawie ‘Polityki energetycznej Polski do 2030 roku’ [Resolution no. 202/2009 of the Council of Ministers of November 10, 2009, on ‘Poland’s Energy Policy until 2030’].
- Uchwała. (2017). Uchwała nr 8 Rady Ministrów z dnia 14 lutego 2017 r. w sprawie przyjęcia Strategii na rzecz Odpowiedzialnego Rozwoju do roku 2020 (z perspektywą do 2030 r.) [Resolution No. 8 of the Council of Ministers of February 14, 2017 on Responsible Development Strategy (With Perspective Up to 2030)], *Monitor Polski*, 15 marca 2017 r., poz 260.
- Wiśniewski, B. (2017). PISM spotlight. U.S. LNG Delivery to Poland. <http://www.pism.pl/publications/spotlight/no-23-2017>. Retrieved 5 Oct 2017.



CHAPTER 9

The Baltics: Between Competition and Cooperation

Vija Pakalkaitė and Joshua Posaner

INTRODUCTION

The three Baltic countries—Estonia, Latvia and Lithuania—have long been at odds over how to proceed with measures for boosting their energy security. For most of their time as EU members, the three countries have remained largely disjointed ‘energy islands’ adrift from neighbouring networks, and little progress has been made towards more integration with other EU states—even though the strategic aims of these countries and the EU converge regarding integration, interconnection and diversification of energy supply.

Only recently have the Baltic states turned from being ‘energy islands’ to an ‘energy peninsula’ (Bērziņa, 2017, p. 209). By 2017, their situation regarding security of supply and supply diversification had improved significantly compared to a decade earlier. In the gas sector, a floating LNG

V. Pakalkaitė (✉)

ICIS, EU Carbon and Power, Karlsruhe, Germany

e-mail: Pakalkaite_Vija@alumni.ceu.edu

J. Posaner

POLITICO Europe, Berlin, Germany

© The Author(s) 2019

J. M. Godzimirski (ed.), *New Political Economy of Energy in Europe*, International Political Economy Series,
https://doi.org/10.1007/978-3-319-93360-3_9

215

terminal, *Independence*, was put into operation at the end of 2014. The related Klaipėda–Kursėnai gas pipeline, designed to finalize a ring of the Lithuanian gas system, was also commissioned at that time. Agreement on a gas interconnector with Poland, the GIPL project, was reached in September 2015, with finalization set for 2021 (Amber Grid, 2017). In the electricity sector, interconnectors between Estonia and Finland (Estlink 1 and 2) and Lithuania and Sweden (NordBalt) and the first line of the interconnector between Lithuania and Poland (LitPol Link) have been commissioned.

However, full integration of the energy sector is far from accomplished. Closer examination reveals that almost all the aforementioned projects that succeeded were either implemented after financial intervention or moderation by the EU (in the NordBalt case, also Sweden) or were pushed forward by one Baltic country without the involvement of the other two, despite the apparent joint advantages. Moreover, nearly all the above projects experienced delays, and there are several projects that have not yet been realized. For example, construction of the Visaginas Nuclear Power Plant (VNPP) in Lithuania has stalled despite top-level regional agreements, and a gas pipeline between Estonia and Finland is still on the drawing board. Furthermore, despite almost two decades of discussions and planning, the Baltic states remain the only EU members whose electricity networks are still synchronized with the system of Russia and other CIS countries.

Recent studies have noted that although the Baltic states have similar strategic goals in their pursuit of energy independence—such as tackling dependence on Russia and creating a regional electricity market—their tactical objectives have differed and therefore stalled or have been implemented unilaterally (Godzimirski, Vilpišauskas, & Švedas, 2015; Janeliūnas & Rimkūnaitė, 2016; Vilpišauskas, 2017). This chapter goes one step further and shows that while EU membership has generally promoted implementation of energy projects, in some cases the EU's expectations that the Baltics would act as one, especially when promises of financial rewards were attached, have served instead to fuel competition. As explained in Chap. 1 of this volume, small states can more readily adjust to changes because it is easier for them to reach consensus on decisions within their domestic political structures. This chapter shows that EU energy policies that promote regionalism may work against this apparent advantage of decision-making in small states, by pushing them to behave as a single unitary actor.

Table 9.1 Key energy market indicators in the Baltic countries

	<i>Population (in millions)</i>	<i>Annual gas consumption in 2015 (in bcm)</i>	<i>Electricity consumption in 2015 (GWh)</i>
Estonia	1.3	0.7	6852
Latvia	2	1.6	6458
Lithuania	2.9	2.55	9342
Total EU	508.2	397	2,740,779

Source: Eurostat, [2017](#)

The Post-EU Accession Case for Cooperation

Because of the small size of their populations, the Baltic states are mainly policy-takers, not policy-makers, at the EU level. Altogether they represent just 1.21% of the EU population, whereas a minimum share of 65% of the EU's total population is needed to adopt a decision at the European Council under the qualified majority voting system (Devaney & Poptcheva, [2014](#), p. 1; Council of the EU, [2015](#)). This makes them ineffective at pushing for their own policy preferences in Brussels and more dependent on decisions taken regardless of their own interests. As seen in Table 9.1, the Baltics also make up a tiny share of the European energy market and are variously dependent on imports to meet demand.

All three Baltic states depend on EU financing for overall investments. Lithuania is set to receive some €8.4 billion from the EU's European Structural and Investment Funds between 2014 and 2020 (European Commission, [2017c](#), p. 12). In Latvia, some €10.8 billion has been allocated in the period 2007–2020 for development, including energy infrastructure: that represents some 70% of all investment in the country (European Commission, [2017d](#), p. 29). As for Estonia, the EU has allotted €4.5 billion in 2014–2020, equivalent to 47% of overall national public investment (European Commission, [2017e](#), p. 12).

Accession to the EU in 2004 brought major changes to the energy systems of the three Baltic states, which quickly had to learn how to operate in a new market and regulatory environment as described in Chap. 2 of this book. The import vulnerability of the Baltic states' energy markets was reinforced by the increasing price of gas delivered by Russia's Gazprom and the closure of the largest single electricity generator, Ignalina NPP, which Lithuania had to close to meet its pre-accession commitments.

The de-commissioning took place across two phases in 2004 and 2009. At the time of its closure at the end of 2009, the Ignalina NPP covered more than 78% of Lithuanian annual demand and a substantial part of energy consumption in Latvia (Maigre, 2010). In the words of Anzelmas Bačauskas, former head of the strategy division of the Lithuanian state-owned power company Lietuvos Energija, Lithuania went ‘from being a European country with the largest share of electricity exports ... to a country with the largest share of electricity imports’ (Bačauskas, 2015a, p. 38).

In 2005, Gazprom announced what was intended as a three-year programme to bring the price of gas exported to the Baltics to the ‘European’ level ‘minus the transportation costs’ by 2008 (ELTA, 2005). Russian gas export prices to Germany were often used as a benchmark of what ‘European’ gas import price should be. The gradual price increase in the Baltics continued until early 2014, with drop in 2009 during the economic crisis (Eurostat, 2017). The contract rate reportedly overstepped the average German import price, despite the Baltics being far closer along the transit chain from Russian production. According to the news agency Interfax, the average price of Gazprom gas exported to consumers in Germany in 2012 was €353 per thousand cubic metres (Interfax, 2013). According to official statistics, Lithuania’s gas price was USD 403 per thousand cubic metres in the same year (National Commission for Energy Control and Prices, 2017).

The Baltic states had no alternative electricity or gas supplies to those coming from Russia and the other CIS countries. The natural gas pipeline network running through the Baltics had been developed during the Soviet Union starting from 1961. A later extension of the network called the Northern Lights pipeline saw the distribution system routed through Belarus to primarily reach markets in the rest of Continental Europe. Due to these historical infrastructure developments, until the beginning of 2015, Russia’s energy giant Gazprom supplied almost all gas delivered to the Baltics. The combination of dependence on Russian gas and the closure of the Ignalina plant meant Lithuania was among the most vulnerable countries in the EU for security of energy supply due to its dependence on a single supplier. Estonia’s gas market was also isolated due to its single supplier exposure, and Latvia lacked sufficient power interconnections to its eastern neighbour Estonia.

*EU Policy Ecosystem: From Community to Regions,
from Regulation to Financing*

The energy sector challenges facing the Baltic states have coincided with a changing approach from the EU towards the energy sector, as it moved from regulation to intervention, and a greater focus on regional cooperation and joint projects between neighbouring countries. As explained in Chap. 2, the EU initially took a purely legislative and regulatory approach towards advancing the internal market and security of supply situation in the sector. Brussels' efforts to liberalize EU energy markets and force competition into what were traditionally state-administered monopolies involved three legislative 'packages': in 1996–1998, 2003 and 2009. The 2009 Third Energy Package pushed forward the concept of effective unbundling: clear separation of import/production from distribution and network businesses. However here, as explained later, the Baltic states had the right to derogate from this requirement.

The Third Energy Package added a new actor to the EU energy sector: the Agency for the Cooperation of Energy Regulators (ACER), with certain powers to intervene in bilateral issues between EU countries. It is empowered to decide how to break up the cost of projects with regional impacts beyond the countries in which they are built. This Cross-Border Cost-Allocation (CBCA) system kicks in when national regulators are unable to reach a decision on allocating project costs. About half of the 24 decisions thus far by the CBCA have concerned projects in the Baltic electricity and gas markets (ACER, 2017).

Initially, EU membership meant access to *regulatory tools* for reforming the sector: funding possibilities for infrastructure investments were scarce. Before the 2008–2010 global economic crisis, energy projects could be selected as projects of European interest, with priority for funding from a budget earmarked for Trans-European Networks dealing with energy (TEN-E). However, to avoid possible distortion of competition, the budget allocated for the TEN-E (around €20 million per year) was intended mainly for financing feasibility studies, loan guarantees or interest rate subsidies (Council of the EU, 1995, p. Art. 4; Pakalkaitė, 2012). Accordingly, the initial approach to solving energy security issues in the Baltic states involved consolidating state-owned companies, as with the never-realized Visaginas NPP in Lithuania, or seeking private investors: one initial plan was to include Lithuania's largest fertilizer producer Achema in a proposal for constructing an LNG terminal on the Lithuanian coast.

The first guidelines for TEN-E in 2006 gave top priority to plans for an undersea cable between Finland and Estonia (Estlink 1). A Poland–Lithuania electricity link (later known as LitPol Link) was also listed as a priority project. A gas pipeline between Finland and Estonia (later known as Balticconnector), a new gas storage facility in Lithuania and developing existing underground gas storage facilities in Latvia were also listed as projects of common interest (European Parliament and Council of the EU, 2006). There was no mention of an LNG terminal in the Baltics or a gas pipeline connecting the Polish and Lithuanian gas networks, except the one within the framework of the Amber project—a mooted pipeline that the Baltic states and Poland promoted as an overland alternative to the contentious Nord Stream that would bypass these countries by shipping gas under the Baltic Sea to Germany (Vremya Novostey, 2007).

From 2009, the Commission ‘left the “liberal paradigm” and became more mercantilist – or “realist”’ (Goldthau & Sitter, 2014, p. 1468) in the energy sector. In order to rebuild EU economies shaken by the economic crisis, in 2009 the European Energy Programme for Recovery (EEPR) was established, with total funding for energy projects set at €3.98 billion (European Commission, 2016a). The EEPR was meant to be a temporary intervention and was succeeded by the Connecting Europe Facility (CEF), in place since 2014, for financing infrastructure development. The CEF provides access to €5.85 billion for energy projects 2014–2020.

Simultaneously, after decades of failure to create a single energy market across the whole EU, the European Commission has begun to emphasize regional cooperation, focusing on separate groups of member states. Even though almost two decades have passed since the adoption of the First Energy Package and substantial efforts from supranational EU institutions, the ‘merger of the national markets in a single European electricity and gas market’ (Glachant & Finon, 2004, p. 135) has not been realized. Just as in the 1980s (Estrada, 1988), gas markets have remained divided along national borders, with electricity markets only occasionally coupled across several countries. Therefore, it was felt, regional groups of countries could more feasibly create and later merge into a broader pan-EU energy integrated market.

Regional cooperation is promoted by the high-level regional energy groups that the Commission creates and chairs to steer cross-border coordination. The high-level group in the Baltics was the first of four such groups to be created in the energy sphere. It initiated talks on the Baltic

Energy Market Interconnection Plan (BEMIP) in the autumn of 2008, and in June 2009, eight member states from the Baltic Sea region signed a memorandum of understanding (European Commission, 2009a). The participating countries of the BEMIP High Level Group are Denmark, Estonia, Finland, Germany, Latvia, Lithuania, Poland, Sweden and, as an observer, Norway (European Commission, 2009b; Tanasa, 2015, p. 8).

In order to receive EU funding from CEF, a project first needs to feature on the Projects of Common Interest (PCIs) list, updated every two years since 2013. Within the PCIs, there are priority corridors; projects in the Baltic states are located in the Priority Corridor Baltic Energy Market Interconnection Plan (grouped as ‘BEMIP Electricity’ and ‘BEMIP Gas’). PCIs are listed either as stand-alones or as part of a cluster. Some have been clustered because of their interdependent or (potentially) competing nature (European Commission, 2013a, para. 10). Work on PCIs is coordinated primarily by regional groups—BEMIP in the case of the Baltics. The EU’s Energy Union concept, launched in 2015, has focused especially on regional cooperation and has sought to encourage member state solidarity, especially within regional groups. For example, as part of the latest legislation under the Energy Union umbrella, the EU has adopted a revision to its rules on security of gas supply aimed at enhancing ‘regional cooperation and coordination set on risk-based groups of member states’. The intention is to do this by requiring countries to set up preventive action plans and emergency plans and conduct regional risk assessments (European Council, 2017).

Common Goal, Diverging Actions

Following the appearance of larger EU funding pools, the Baltic states have turned their attention to Brussels for infrastructure financing but have found it difficult to work together on energy initiatives. As the discussion of the gas and electricity sectors in the Baltics will show, these countries have taken, or have contemplated taking, unilateral decisions of regional importance on various schemes in the energy sector, or have attempted to shape decisions in line with national rather than regional preferences, often undermining EU aims for joint regional action.

Gas: Competition Over LNG Terminals

Competition for a regional LNG terminal ended with the European Commission deleting any reference to a joint scheme in the latest (2017)

PCI list. The idea of building a regional LNG terminal on the shore of a Baltic state, initiated in parallel with the BEMIP initiative in 2007–2009, inspired the countries to consider alternatives to an onshore gas interconnector with Poland as a way of ensuring diversification from Russia as their single source of natural gas. The 2007 Lithuanian National Energy Strategy mentioned the possibility of conducting feasibility studies with Estonia and Latvia regarding a regional LNG terminal (Lithuanian Parliament, 2007). The European Commission had been providing its own consultations and studies for an LNG terminal, consistently maintaining that only one should be built to serve the three Baltic states. According to the first BEMIP plan, created by the high-level regional group in 2009, ‘the relatively small gas markets in Estonia, Finland, Latvia and Lithuania do not generate scope for more than one’ (BEMIP High Level Group, 2009, p. 20). A BEMIP regional plan outlined the possibility of developing one terminal in possible locations in Finland and each of the Baltic states.

Despite the determination of the Commission, signs of inter-Baltic competition for an LNG terminal quickly appeared. Already the BEMIP regional plan outlined one concept for a terminal in Lithuania, with capacity of 3 bcm/year, to be built between 2012 and 2018. In Estonia, the terminal to be built by 2015 in Paldiski or Tallinn was intended to achieve 2.5 bcm/year capacity, and the Latvian LNG terminal was to be built between 2012 and 2018. None of these projects moved forward, as agreement on one regional terminal would mean that the other Baltic states would have to forego visions of building their own.

Between 2008 and 2012, the Lithuanian government pushed ahead with its own initiative outside the Commission’s stated priority schemes as it struggled to handle higher gas import prices from Gazprom. In June 2010, Lithuania’s Energy Minister, Arvydas Sekmokaš, created a working group to analyse the construction of an LNG terminal. One month later, without even waiting for the report of this group, the government announced that the state-owned energy company Klaipėdos Nafta would develop the LNG project (Government of Lithuania, 2010). In March 2012 Lithuania signed a ten-year lease agreement for a floating LNG storage and regasification unit (FSRU) with Norway’s Høegh LNG. The contract allows for purchase of the FSRU after ten years, in 2024.

The Lithuanian government avoided presenting the LNG terminal as a potential competitor to a regional Baltic LNG scheme. For example, in February 2011, President Dalia Grybauskaitė stated that the country ‘seeks

to have guarantees and supply alternatives in any case, so Lithuania so far is still planning to build a small capacity LNG terminal on its territory, but surely will not object if Latvia plans to build a larger centre, especially when there is a large gas storage' (ELTA, 2011). Initially, Lithuania had not applied for PCI status for the Klaipėda project. Then, in 2013, Latvia reportedly attempted to block a €87 million loan by the European Investment Bank (EIB) by planning to vote against it in a decisive meeting. The motive of the Latvian officials, as interpreted by their Lithuanian counterparts, was the wish to build a regional Baltic LNG terminal on the Latvian coast instead of a national one in Lithuania (Staselis, 2013).

The arrival of a floating LNG terminal in the port of Klaipėda in December 2014 had a regional impact. The FSRU *Independence* brought with it the first high-capacity gateway for non-Russian gas to Baltics—totaling 4 bcm in capacity, or around 100% of 2016 regional demand. By the end of 2014, for the first time in half a century, competition was installed not only in the Lithuanian market but also in the Estonian wholesale gas market (Estonian Competition Authority, 2015, p. 68). A facilitating factor here was that both Lithuania's and Estonia's long-term gas contracts with Gazprom were due to finish at the end of 2015, giving them space to seek alternatives supplies. Gas trading activities between Lithuania and Estonia have continued, albeit sporadically: according to rough estimates, in 2015 Lithuania exported approx. 70 million cubic metres to Estonia, and 4.7 million cubic metres in 2016 (Eurostat, 2017). Secondly, the terminal meant greater security of supply for all three Baltic states. A pan-European gas system resilience stress test conducted by the European Commission in 2014 showed that, with the Klaipėda LNG terminal entering operation, supplies for the protected customers (all households, small and medium-sized enterprises, essential social services and/or district heating installations) would be ensured in the three Baltic states, in all scenarios of hypothetical disruption of gas supply from Russia. Further, without the Klaipėda LNG terminal, 'the situation would be more dramatic in Estonia as there would be no gas in their system, including for protected customers, within 4–5 days' (European Commission, 2014, p. 4).

Thirdly, the terminal in Lithuania meant that Latvia lost its derogation from the Third Natural Gas Directive, as the region was finally opened to alternative supplies of gas besides Gazprom deliveries. Three generations of EU natural gas directives had allowed 'isolated' and 'emergent' natural gas markets to derogate from such provisions as market opening and reciprocity and the requirement to unbundle the transmission system operator.

Each of the Baltic states had met the criteria to opt for derogations as ‘isolated’ markets, that is, they were not directly connected to the interconnected system of any other member state and had only one main external supplier (a market share of more than 75%) (European Parliament and Council of the EU, 2009). Estonia and Latvia took advantage of the derogation; Lithuania opted out in 2008. The resultant asymmetric gas market liberalization in neighbouring markets subsequently slowed the pace of integration, as Latvia’s role as the Baltic ‘middleman’ made access to its network pivotal for transmission between Lithuanian and Estonia and for use of the region’s only storage facility Inčukalns, owned by the main Latvian natural gas company and TSO Latvijas Gāze.

Because of uneven liberalization among the three Baltics, attempts by Lithuania to follow the same gas trade strategy regarding Latvia as they had in Estonia—first sending ‘test’ shipments, and then securing clients—failed initially. In January 2016, Latvian state-owned electricity company Latvenergo attempted to purchase gas from Lithuania for the Riga TEC-2 power plant, but Latvijas Gāze refused access to the natural gas system (Latvian Public Utilities Commission, 2016). However, less than one year after the arrival of the FSRU *Independence*, the European Commission informed Latvia that it had lost its derogation because of the appearance of alternative supplies in the region and would now have to implement the Third Natural Gas Directive fully (Posaner, 2015). Latvia had liberalized its electricity market in 2015 but introduced competition to its gas sector only in April 2017.

Attempting to decrease the price tag of the LNG terminal, Lithuanian government attempted to get it formally rebranding it as ‘regional’. As every Lithuanian gas consumer pays a ‘security of supply component’ as a part of the gas tariff, regardless of whether the gas comes from Russia or the LNG terminal, the government wants to spread the cost beyond its citizens and has outlined plans for purchasing the FSRU vessel. Revenues from the added levy go towards the lease of the FSRU *Independence* and other expenses (NCC, 2017). Since 2015 Lithuania has promoted the concept of enlarging capacity at the Klaipėda facility and using it as a regional terminal as well (Pumprickaitė, 2014).

However, the idea of formalizing the status of Klaipėda LNG as a regional LNG terminal encountered opposition from the other Baltics, as shown by the many other Baltic LNG terminal projects on the 2013 and 2015 PCI lists. In 2013, a total of four Baltic LNG terminal projects were listed as potentially competing schemes: one in Finland, two in Estonia

and one in Latvia (European Commission, 2013b, p. 42). Moreover, the European Commission arguably fuelled competition with the aforementioned 2014 stress test: while acknowledging the greater security of supply in the region achieved because of the Klaipėda LNG, it still put pressure on the Baltics to ‘demonstrate clear political will to accelerate the necessary investments ... in the Regional Baltic LNG terminal’ (European Commission, 2014). Two years after the first PCI list, the Latvian and Finnish LNG projects were absent from the list in the next wave of updates; two Estonian terminals remained (European Commission, 2015b, sec. 8).

With the next PCI update approaching in autumn 2017, Lithuania sought to get Klaipėda LNG added to the list, with Estonia still trying to keep two terminals and Latvia aiming to get one terminal on its shores listed again. At the same time, Lithuania advocated for the submission of an application for an EU-funded regional project, the Regional Scale LNG Import Solution, also called the ‘one-and-half’ LNG terminal. That project would include the purchase of the leased Klaipėda LNG, construction of a new mid-scale LNG terminal in Estonia and allocation of funding for the modernization of the Inčukalns storage facility in Latvia—essentially creating a cross-border suite of energy security infrastructure all funded by the EU. Estonian authorities have reportedly conditionally supported the project, but Latvia has had reservations (Vilpišauskas, 2017, p. 197).

The third PCI list, published in late November 2017, featured no Baltic LNG terminals. The existing terminal at Klaipėda did not appear on the list, and the other projects were deleted (European Commission, 2017a, p. 16)—so the competition seems to have disrupted the prospects for an EU-funded initiative.

Discussion on locations for cross-border gas interconnectors has provided less room for competition among the Baltics. However, as of late 2017, the countries had not built a single new interconnector to any other EU country. Failure to agree on how to spread the burden of financing for GIPL development between the three Baltics and Poland led to mediation from ACER in 2014 (ACER, 2014). The project that was intended to improve energy security in the Baltics, and eliminate its status as an energy island, is for a 534 km gas pipeline between Lithuania and Poland. It was planned to give the Baltics a connection to the Polish network, and thence to the broader continental network, enabling imports of pipeline gas flowing from Germany via Poland. The ACER decision split the cost between Poland and the three Baltics, as they were seen as the net beneficiaries of the project, despite most of the route running through Poland. When

completed, the pipeline will have 2.4 bcm/y capacity flowing eastwards into the Baltics; a proposed expansion would raise that to 4.1 bcm/y.

Under the ACER ruling, the first of its kind on an EU-favoured PCI project, Poland will be reimbursed €85.8 million once the pipeline is commissioned, from an estimated total cost of €558 million (European Commission, 2015a). Of that, €54.9 million is to be paid by Lithuania, €29.4 million by Latvia and €1.5 million by Estonia. The compensation to the Polish system operator will come from transmission charges eventually paid by end users in the Baltic states. The pipeline was due to start operating in 2019, but Poland, citing environmental concerns, has requested a re-examination of the routing of its segment of the link with the project, not due for completion until 2021. The European Commission noted in its consultation findings for the PCI list in 2017: ‘it is interesting to note that all the positive comments that were accompanied by a justification were submitted by Finnish stakeholders that highlighted the significance of the Poland–Lithuania Gas Interconnection for Finland, as it will contribute to the integration of the Finnish and Baltic gas markets’ (European Commission, 2017b), even though the pipeline will only connect Lithuania with Poland.

Unsynchronized Efforts Towards Power Synchronization

In the electricity sector, the biggest common energy project of the Baltics has been integration with the rest of the EU power network. This would entail building interconnectors and desynchronizing from the Integrated/Unified Power Systems (IPS/UPS) linking Russia and the CIS countries. By 2017, the Baltics succeeded in building most of the planned electricity interconnectors, although they were often significantly delayed. However, despite political commitment to the process of desynchronization from the former Soviet network and synchronization to that of EU countries instead (formerly Union for the Coordination of the Transmission of Electricity (UCTE), now Continental European Network (CEN)), little progress has been made. The anticipated completion date is now set to 2025. That is more than 25 years after the transmission system operators of the Baltic states first sent a letter requesting to join the UCTE in 1999, to which they received a negative response from the UCTE in 2000 (Lietuvos Energija, 2007, p. 6; Paškevičius, 2012, p. 10).

There are both political and technical reasons why the Baltic states have been seeking desynchronization from the IPS/UPS. Politically, it has been important for them to distance themselves from the Soviet-era system of

energy interdependence. The three Baltic states are the only remaining post-socialist EU members yet to desynchronize their electricity grids from the IPS/UPS: Poland, the Czech Republic, Slovakia, Hungary, Bulgaria and Romania gradually did so after 1990 and joined the CEN, then called UCTE (Bačauskas, 2015b, p. 19). Operating within IPS/UPS makes the Baltic states dependent on the former Soviet space in the event of brownouts or blackouts. Since the closure of Ignalina NPP, the need to rely on IPS/UPS has decreased, and the desire for independence from a dispatch centre in Moscow has remained.

Technically, being a part of a larger system, such as that of Continental Europe, would help the Baltics reach ambitious EU targets for the share of renewables. Renewables are notoriously intermittent, but with a larger area it is easier to tackle the variable production of solar and wind power (Bačauskas, 2015b, pp. 29–30). According to the Baltic Power Systems Adequacy Assessment 2017–2032, if the Baltic states' power systems continue to operate within the IPS/UPS system, network adequacy is ensured only until 2025—making the switchover imperative (Litgrid, 2017).

Synchronization of the Baltic electricity networks with the European system requires unity from the Baltics on this issue. Within the IPS/UPS system, the Baltic states belong to a Soviet-designed 'energy ring' linking Belarus, Russia, Estonia, Latvia and Lithuania—the BRELL ring. In order to desynchronize from IPS/UPS, the Baltic countries will need to dismantle some lines to Russia and Belarus and build converters, such as are now on the LitPol Link line, on the other connections to the IPS/UPS system. A 2013 feasibility study has shown that even though synchronization with the Continental Europe area is possible, the associated costs outweigh the commercial benefits (Gothia Power, 2013). Estimated costs of integrating Baltic electricity with that of the EU range from €435 million to 1.071 billion (Litgrid, 2015a, p. 9).

The first interconnector planned for a country outside of the Baltics was to Poland, and it took the longest to be implemented. The project developers behind the LitPol Link, an interconnector between the Lithuanian and Polish power grids under consideration since 1992, describe it as the 'cornerstone of creating a common European energy market by closing the so-called Baltic Ring' (LitPol Link, 2014). In reality, this has been the 'longest common project under development between Lithuania and Poland' (Bačauskas, 2015a, p. 50), the first step of which was completed only in November 2015. Earlier, Lithuania was looking for new markets to sell an oversupply of produced electricity, and Poland was

interested in peak-time imports. However, as Bačauskas writes, ‘Poland would have made large investments, but would gain only moral profit, that three members of the EU [the Baltic states] would no longer be “energy islands”’ (2015a, p. 34).

After years of delays, the first part of the project, LitPol Link 1, moved forward when it appeared on the first PCI list in 2013 and in 2015 was approved to receive €27.4 million under the CEF (Litgrid, 2015b). In 2014, Litgrid also submitted an investment request to the national regulatory authorities of Germany, Finland, Latvia, Lithuania, Norway, Poland and Sweden. Poland received significant EU financing for the project, and ACER considered that LitPol Link would provide net benefits to Sweden and Poland in addition to Lithuania. However, in 2016 it decided that despite the benefits to several other member states, it is Lithuania that stands as a net beneficiary of the project and that it would not need financial compensation for the investment from the other states that also benefit (ACER, 2015). In November 2015, the 500 MW LitPol Link 1 power line came into operation.

In the meantime, the Baltics had been rushing to interconnect with Nordic countries, physically and in terms of trading. Estlink 1, a 350 MW underwater cable between Estonia and Finland completed in 2006, became the first interconnector linking a Baltic state to another EU country. In spring 2014, Estonia and Finland built Estlink 2, thereby raising capacity between the two countries to 1000 MW. As Estonia was getting Estlink, Latvia attempted to get an underwater link to Sweden that Lithuania planned in addition to the link to Poland. Both the Lithuanian and Swedish sides initiated the project in 2004, at the time called SwindLit (Lietuvos Energija, 2007, p. 11). According to Arvydas Sekmokas, only with Swedish TSO Svenska kraftnät’s assistance could a solution be found for building the cable from the Lithuanian shore and assigning a part of EU funding to strengthen the Latvian internal electricity grid (Sekomkas, 2015, pp. 96–97). In July 2009, Lithuania, Latvia and Sweden signed a memorandum on NordBalt, in which Latvia committed to strengthen the grid in western Latvia (Paškevičius, 2012, p. 2). To appease Latvia, the European Commission assigned PCI status to the capacity increases in internal lines between Ventspils, Tume and Imanta and an internal line between Ekhyddan and Nybro/Hemsjö (Sweden) under the NordBalt project cluster. Both Estlink 2 and NordBalt have received support from the EEPR fund (European Commission, 2016b).

Besides physical interconnections, the closure of Ignalina NPP was an important contributing factor behind the integration of the Baltic and Nordic energy markets. In 2009, the Lithuanian government feared that, following the closure of Ignalina NPP, Russian electricity would flood the country. It therefore decided to establish a centralized power exchange and required all the imported and exported electricity to be traded there. In the same month that Ignalina NPP closed, the Lithuanian government established the Lithuanian Energy Exchange Baltpool, which started operating a power exchange on the first day of 2010—the next morning after Ignalina NPP produced its last MWhs of electricity.

Once interconnectors with the Nordic countries were in place, Estonia's preference for evaluating a link to the Nordics rather than Poland delayed the process of synchronization—a clear illustration of further policy dissonance within the region. After Estlink 1 and Estlink 2 were accomplished and Baltic electricity trading moved to Nord Pool Spot in 2015, Estonia started investigating how to synchronize with the Nordic system via Finland (Staselis, 2015). According to Lithuanian government sources quoted in the media, the Estonian authorities first decided to take initiative and to motivate Poland to allow the Baltics to progress with synchronization with the Continental Europe area. Therefore, reportedly, Estonians initially floated possible synchronization with the Nordic system, in order to apply pressure on Poland. However, the possibility gained validation in discussions, and the Commission got the chance 'to constantly push the Baltic states to make up their minds' (Staselis, 2015).

With Estonia considering synchronization with the Nordic system, the need for a new feasibility study arose (Purvins et al., 2017). Waiting for the results of the new feasibility study delayed the final negotiations on synchronization. After many years of delays, Poland had completed the first LitPol Link, but in 2017 it proposed a LitPol Link 2 *offshore* line in the Baltic Sea, citing environmental reasons that would prevent the construction of a second onshore line (Vilpišauskas, 2017, p. 191). This proposal immediately triggered a reaction from Estonia, which (again, reportedly) proposed synchronization with the Nordic region system. In response, the Lithuanian Prime Minister indicated that if Estonia and Latvia should disagree, Lithuania could synchronize via Poland alone (Baltic News Service, 2017). Despite the difficulties, by the end of September 2017, representatives of the Polish and Baltic transmission system operators—PSE, Litgrid, AST and Elering—met in Poland to start the first technical study on synchronization of the Baltic states with the

system of Continental Europe and the dynamic stability of the interconnection set for completion in 2018 (ENTSO-E, 2017). From January 2018, Baltic transmission system operators have established a common balancing market; and in 2019 they plan to conduct a Baltic power system isolated operation test—a crucial technical preparatory step towards synchronization with CEN.

CONCLUSIONS

The regulatory approach—examined in Chap. 2 of this volume—and EU soft power have generally moved the Baltic states towards integration of their energy markets with that of the EU. However, the increasingly more interventionist approach with EU funding made conditional on ‘regional’ behaviour has had a dual effect. On one hand, it has encouraged the development of physical infrastructure where the location of such infrastructure has been predefined—as with cross-border gas pipelines or electricity links from Estonia to Finland and from Lithuania to Poland. Moreover, EU institutions have increasingly taken the initiative when the Baltic states could not reach agreement and have combined financial support to push forward a project involving mediation on cost allocation between the beneficiaries. The EU institutions were actively redistributing the costs for positive externalities in situations when only one country would pay for a project from which the whole region would benefit. By lessening the economic burden for that country, the EU prevents it from halting a project that could benefit the whole region. Such mediation has contributed to solving the problem of locating a NordBalt power cable connection to Sweden within the region and the first stage of the LitPol Link by assigning funding. Also the GIPL gas pipeline with Poland will be realized by distributing the costs among the Baltic states that will all benefit from it.

On the other hand, this more ‘mercantilist’ approach on the part of the EU—discussed in Chap. 2 of this volume—has spurred regional competition in the Baltics. Competition has been especially pronounced in projects that did not have a geographically predetermined location, as happened with the aforementioned power cable to Sweden or an LNG terminal to be built in the region. In such situations, the difficulty of accessing and deploying EU funding for energy projects stems from the fact that the EU prefers regional cooperation and joint approaches between neighbouring countries, whereas each of the Baltic states has preferred a solution that could be called ‘regional’, as long as the resultant project was

located within its own territory. As discussed in Chap. 1 of this volume, small states are assumed to be able to adjust quicker to regulatory and market changes because their compact political structures make consensus easily forged. However, in the case of the Baltic states, pressures to get them to act as a single, cohesive unit have served to trigger competition and *not* regional cooperation. Although the European Commission has pushed for regional cooperation to tackle energy security concerns, differences in the level of market liberalization, along with national interests in pressing for local construction of infrastructure, have held back market integration. As soon as the three Baltic states started planning their first energy infrastructure projects, the prospect of ‘collective action’ in these projects without predetermined geographical location meant that the transaction costs in reaching and implementing an agreement between a group of countries were prohibitively high (Godzimirski et al., 2015, p. 59). In the case of the LNG terminal, the solution to the collective action problem proved to be unilateral action by one country and the redistribution of costs for projects under the ACER system. The EU’s insistence on solidarity and funding projects of regional importance has encouraged competition as much as harmonization within the Baltic region. The pursuit of energy security boosting measures in the Baltics remains a primarily domestic rather than cross-border.

REFERENCES

- ACER. (2014, August 11). Decision of the Agency for the Cooperation of Energy Regulators No 01/2014 of 11 August 2014 on the investment request including cross-border cost allocation for the gas interconnection Poland-Lithuania project of common interest no 8.5. Agency for the Cooperation of Energy Regulators. http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Individual%20Decision%2001-2014.pdf. Retrieved 20 Dec 2017.
- ACER. (2015, April 16). Decision on the allocation of costs for the Lithuanian part of the Electricity Interconnection between Lithuania and Poland. http://www.acer.europa.eu/Official_documents/Acts_of_the_Agency/Individual%20decisions/ACER%20Decision%2002-2015.pdf. Retrieved 18 Dec 2017.
- ACER. (2017, March 23). ACER publishes an overview of cross-border cost allocation decisions. <http://www.acer.europa.eu/Media/News/Pages/ACER-publishes-an-overview-of-cross-border-cost-allocation-decisions.aspx>. Retrieved 12 Dec 2017.

- Amber Grid. (2017). Projects under implementation. <https://www.ambergrid.lt/en/dvelopment-of-the-transmission-system/the-gas-interconnection-Poland-Lithuania>
- Bačasauskas, A. (2015a). Lietuvos elektros ūkis ir jo plėtra, jungtys su ES šalimis [The Lithuanian electricity sector and its development, interconnectors with the EU countries]. In *Lietuvos energetika 1990–2014* (Vols. 1–5, Vol. 5, pp. 38–59). Vilnius: Lietuvos energetikų senjorų klubas.
- Bačasauskas, A. (2015b). 1990–2014 m. istorinio laikotarpio elektros energetikos apžvalga [The historical overview of the 1990–2014 Lithuanian electricity sector]. In *Lietuvos energetika 1990–2014* (Vols. 1–5, Vol. 5, pp. 9–37). Vilnius: Lietuvos energetikų senjorų klubas.
- Baltic News Service. (2017, September 5). Lietuva ir Lenkija „nedelsiant“ pasirašys susitarimą dėl tinklų sinchronizavimo, Latvija abejoja. *lrytas.lt*. <http://verslas.lrytas.lt/energetika/2017/09/05/news/lietuva-ir-lenkija-nedelsiant-pasira-sys-susitarima-del-tinklų-sinchronizavimo-latvija-abejoja-2443342/>. Retrieved 15 Dec 2017.
- BEMIP High Level Group. (2009). *Baltic Energy Market Interconnection Plan* (Final report) (p. 30). <https://ec.europa.eu/energy/en/topics/infrastructure/baltic-energy-market-interconnection-plan>. Retrieved 16 Jan 2018.
- Bērziņa, K. (2017). The Baltic states: From energy islands to an energy Peninsula. In *Security in the Baltic Sea region: Realities and prospects* (pp. 200–2010). Riga: Latvian Institute of International Affairs.
- Council of the EU. (1995, September 18). Council Regulation (EC) No 2236/95 of 18 September 1995 laying down general rules for the granting of Community financial aid in the field of trans-European networks. <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A31995R2236>. Retrieved 11 Oct 2017.
- Council of the EU. (2015, April 11). Voting system. *Consilium*. <http://www.consilium.europa.eu/en/council-eu/voting-system/>. Retrieved 8 Oct 2017.
- Devaney, C., & Poptcheva, E.-M. (2014). Changed rules for qualified majority voting in the Council of the EU. *European Parliamentary Research Service*. http://www.europarl.europa.eu/RegData/etudes/ATAG/2014/545697/EPRS_ATA%282014%29545697_REV1_EN.pdf. Retrieved 16 Oct 2017.
- ELTA. (2005, June 7). “Gazprom” ketina Baltijos šalims dujas branginti iki vidutinio Europos lygio [Gazprom plans to bring the Baltic gas prices to increase to the average European level]. *DELFI*. <http://www.delfi.lt/verslas/verslas/gazprom-ketina-baltijos-salims-dujas-branginti-iki-vidutinio-europos-lygio.d?id=6847582>. Retrieved 26 May 2015.
- ELTA. (2011, February 10). D. Grybauskaitė: „Lietuva neprieštarauja dujų terminalo statyboms Latvijoje, bet minties statyti savąjį kol kas neatsisako“ [D. Grybauskaitė: Lithuania does not object the Latvian LNG terminal, but stays with its plans to build an own terminal]. *Lietuvos Rytas*. Vilnius. <http://lietuvsdiena.lrytas.lt/-12973349851297140213-d-grybauskait%C4%97-lietuva->

- neprie%C5%A1tarauja-duj%C5%B3-terminalo-statyboms-latvijoje-bet-minties-statyti-sav%C4%85j%C4%AF-kol-kas-neatsisako.htm. Retrieved 8 Oct 2017.
- ENTSO-E. (2017, October 3). Synchronisation of the Baltic States: ENTSO-E kicks off a first technical study. <https://www.entsoe.eu/news-events/announcements/announcements-archive/Pages/News/Synchronisation-of-the-Baltic-States.aspx>. Retrieved 15 Oct 2017.
- Estonian Competition Authority. (2015). *Electricity and gas markets in Estonia* (p. 98). Tallinn. <http://www.konkurentsiamet.ee/?id=14463>. Retrieved 18 Oct 2017.
- Estrada, J. (1988). *Natural gas in Europe: Markets, organization, and politics*. London: Pinter Publishers.
- European Commission. (2009a). *The Baltic Sea region states reach agreement on the Baltic Energy Market Interconnection Plan*. http://europa.eu/rapid/press-release_IP-09-945_en.htm. Retrieved 18 Oct 2017.
- European Commission. (2009b). *Baltic Energy Market Interconnection Plan progress report*. https://ec.europa.eu/energy/sites/ener/files/documents/20120726_1st_bemip_progress_report_final.pdf. Retrieved 18 Oct 2017.
- European Commission. (2013a, October 14). Commission delegated Regulation No 1391/2013 of 14 October 2013 amending Regulation No 347/2013 of the European Parliament and of the Council on guidelines for trans-European energy infrastructure as regards the Union list of projects of common interest. *Eur-Lex*. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1391&from=EN>. Retrieved 18 Oct 2017.
- European Commission. (2013b, October 14). Commission delegated Regulation No 1391/2013 of 14 October 2013 amending Regulation No 347/2013 of the European Parliament and of the Council on guidelines for trans-European energy infrastructure as regards the Union list of projects of common interest. *Eur-Lex*. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32013R1391&from=EN>. Retrieved 18 Oct 2017.
- European Commission. (2014). *Report on the findings of the Baltics and Finland Focus Group* (Commission Staff Working Document) (p. 10). Brussels. <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52014SC0322&from=en>. Retrieved 18 Oct 2017.
- European Commission. (2015a, October 15). *End of energy isolation in the Baltics: How the Gas Interconnector Poland-Lithuania (GIPL) works*. Brussels. http://europa.eu/rapid/press-release_MEMO-15-5845_en.htm. Retrieved 8 Oct 2017.
- European Commission. (2015b, November 18). Commission delegated Regulation No 2016/89 of 18 November 2015 amending Regulation No 347/2013 of the European Parliament and of the Council as regards the Union list of projects of common interest. *Eur-Lex*. http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:JOL_2016_019_R_0001&from=EN. Retrieved 18 Oct 2017.

- European Commission. (2016a). EEPR Factsheet Interactive map. *European Energy Programme for Recovery*. <http://ec.europa.eu/energy/eepr/projects/>. Retrieved 3 Oct 2016.
- European Commission. (2016b). EEPR Factsheet Interactive map. *European Energy Programme for Recovery*. <http://ec.europa.eu/energy/eepr/projects/>. Retrieved 3 Oct 2016.
- European Commission. (2017a). Annex to Commission delegated regulation amending Regulation (EU) No 347/2013 of the European Parliament and of the Council as regards the Union list of projects of common interest (No. [SWD(2017) 425 final]). Brussels. https://ec.europa.eu/energy/sites/ener/files/documents/annex_to_pci_list_final_2017_en.pdf. Retrieved 18 Oct 2017.
- European Commission. (2017b). *Report of the public consultation on the third list of Projects of Common Interest* (p. 35). https://ec.europa.eu/energy/sites/ener/files/documents/final_report_0.pdf. Retrieved 18 Oct 2017.
- European Commission. (2017c, February 22). Country Report Lithuania 2017. <https://ec.europa.eu/info/sites/info/files/2017-european-semester-country-report-lithuania-en.pdf>. Retrieved 18 Oct 2017.
- European Commission. (2017d, February 22). Country Report Latvia 2017. <https://ec.europa.eu/info/sites/info/files/2017-european-semester-country-report-latvia-en.pdf>. Retrieved 18 Oct 2017.
- European Commission. (2017e, February 22). Country Report Estonia 2017. <https://ec.europa.eu/info/sites/info/files/2017-european-semester-country-report-estonia-en.pdf>. Retrieved 18 Oct 2017.
- European Council. (2017, October 9). *Closer cooperation and reinforced solidarity to ensure security of gas supply*. <https://www.consilium.europa.eu/en/press/press-releases/2017/10/09/gas-supply-closer-cooperation/#>. Retrieved 28 Oct 2017.
- European Parliament, & Council of the EU. (2006, September 6). Decision No 1364/2006/EC of the European Parliament and of the Council of 6 September 2006 laying down guidelines for trans-European energy networks and repealing Decision 96/391/EC and Decision No 1229/2003/EC. <http://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A32006D1364>. Retrieved 11 Oct 2017.
- European Parliament, & Council of the EU. (2009, July 13). Directive 2009/73/EC of the European Parliament and of the Council. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:211:0094:0136:en:PDF>. Retrieved 18 Oct 2017.
- Eurostat. (2017). *Comext database*. <http://epp.eurostat.ec.europa.eu/newxtweb/>. Retrieved 15 Nov 2017.
- Glachant, J.-M., & Finon, D. (2004). Chapter 5 – Electricity and gas markets in Europe: Competition and integration analytical framework. In D. Finon & A. Midttun (Eds.), *Reshaping European gas and electricity industries* (pp. 131–138).

- Oxford: Elsevier Science <http://www.sciencedirect.com/science/article/pii/B9780080445502500087>. Retrieved 8 May 2013.
- Godzimirski, J. M., Vilpišauskas, R., & Švedas, R. (2015). *Energy security in the Baltic Sea region: Regional coordination and management of interdependencies*. Vilnius: Vilnius University Press.
- Goldthau, A., & Sitter, N. (2014). A liberal actor in a realist world? The Commission and the external dimension of the single market for energy. *Journal of European Public Policy*, 21(10), 1452–1472. <https://doi.org/10.1080/13501763.2014.912251>.
- Gothia Power. (2013). Feasibility study on the interconnection variants for the integration of the Baltic States to the EU internal electricity market (executive summary). http://www.ast.lv/files/ast_files/files/documents/Executive%20summary%20of%20FIS-BIS%20project.pdf. Retrieved 18 Oct 2017.
- Government of Lithuania. (2010, July 21). Dėl gamtinių dujų terminalo projekto plėtros. <https://www.e-tar.lt/portal/lt/legalAct/TAR.8F25FCC04C36>. Retrieved 18 Oct 2017.
- Hoskyns, T. (2013, April 9). *Russia-Europe gas prices vary*. Interfax Global Energy. <http://interfaxenergy.com/gasdaily/article/5754/russia-europe-gas-prices-vary>. Retrieved 25 Nov 2017.
- Janeliūnas, T., & Rimkūnaitė, K. (2016). Klaipėda's LNG terminal – Unilateral decision for a common gain. In *The Baltic Sea region: Hard and soft security reconsidered* (pp. 112–123). Riga: Latvian Institute of International Affairs.
- Latvian Public Utilities Commission. (2016, March 23). The regulator has initiated an administrative proceeding about possible violations by JSC “Latvijas Gāze” regarding third party access to the natural gas infrastructure. Riga. <https://www.sprk.gov.lv/jaunums/the-regulator-has-initiated-an-administrative-proceeding-about-possible-violations-by-jsc-latvijas-gze-regarding-third-party-access-to-the-natural-gas-infrastructure>. Retrieved 12 Nov 2017.
- Lietuvos Energija. (2007). Informacija apie AB „Lietuvos Energija“ veiklą ir investicinius projektus įgyvendinant nacionalinę energetikos strategiją. <https://gamyba.le.lt/sites/default/files/media/dynamic/files/227/le-informacija.pdf>. Retrieved 18 Oct 2017.
- Litgrid. (2015a). *Elektros Sistemos Sinchronizacija*. https://enmin.lrv.lt/uploads/enmin/documents/files/strateginiai-projektai/igyvendinami/2015_05_13%20LitGRID%20info%20del%20SYNC.pdf. Retrieved 18 Oct 2017.
- Litgrid. (2015b, July 14). LitPol Link to receive EUR 27 million of EU funding. <https://globe.newswire.com/news-release/2015/07/14/751792/0/en/LitPol-Link-to-receive-EUR-27-million-of-EU-funding.html>. Retrieved 18 Nov 2017.
- Litgrid. (2017). Baltic countries' power systems adequacy assessment 2017–2032 (summary of results). http://www.litgrid.eu/uploads/files/dir387/dir19/5_0.php. Retrieved 18 Oct 2017.

- Lithuanian Parliament. (2007, January 27). Dėl Nacionalinės energetikos strategijos patvirtinimo. http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=291371&p_query=&p_tr2=. Retrieved 28 June 2011.
- LitPol Link. (2014). International project. <http://www.litpol-link.com/about-the-project/international-project/>. Retrieved 11 Oct 2017.
- Maigre, M. (2010). *Energy security concerns of the Baltic States*. International Centre for Defence Studies. Estonia: Tallinn.
- National Commission for Energy Control and Prices. (2017, July 28). Natural gas prices. <http://www.regula.lt/en/Pages/natural-gas-prices.aspx>. Retrieved 21 Nov 2017.
- NCC. (2017, July 28). Natural gas prices. *National Commission for Energy Control and Prices*. <http://www.regula.lt/en/Pages/natural-gas-prices.aspx>. Retrieved 15 Oct 2017.
- Pakalkaitė, V. (2012). *Evaluation of the Nord stream and Caspian gas infrastructure and procurement projects in the context of the European Union internal market policy and need for energy security* (Master's thesis) (p. 88). Budapest: Central European University. www.etd.ceu.hu/2012/pakalkaite_vija.pdf. Retrieved 13 Sept 2017.
- Paškevičius, V. (2012, February 22). Lietuvos elektros energetikos sistemos sujungimas su kontinentinės Europos elektros energetikos sistema. Tarpvietminių jungčių “NordBalt” ir “LitPol Link” projektai [Connection of the Lithuanian electricity system with the Continental Europe system. Interconnectors NordBalt and Litpol Link]. Presented at the Lietuvos socialdemokratų partijos ir energetikos ekspertų apskrito stalo diskusija energetikos strateginiais klausimais, Vilnius.
- Posaner, J. (2015, December 10). *Latvia under pressure on EU unbundling rules*. Interfax Global Energy. <http://interfaxenergy.com/gasdaily/article/18627/latvia-under-pressure-on-eu-unbundling-rules>. Retrieved 6 May 2016.
- Pumprickaitė, N. (2014, September 28). Energetikos ministras apie A. Skardžiaus komisiją: praradome du mėnesius [The minister of energy about the A. Skardžius Commission: We lost two months]. *DELFI*. <http://www.delfi.lt/verslas/energetika/energetikos-ministras-apie-a-skardziaus-komisija-praradome-du-menesius.d?id=65970792>. Retrieved 4 May 2016.
- Purvins, A., Huang, T., Zalzar, S., Pi, R. J., Flego, G., Masera, M., et al. (2017). *Integration of the Baltic States into the EU electricity system: A technical and economic analysis*. Publications Office of the European Union. <http://porto.polito.it/2676173/>. Retrieved 13 Oct 2017.
- Sekmokas, A. (2015). *Energetikos ministerijos atkūrimas. Energetikos ūkis 2008–2012 metais* [Restoration of the Energy Ministry. The energy sector 2008–2012]. In *Lietuvos energetika 1990–2014* (Vols. 1–5, Vol. 5). Vilnius: Lietuvos energetikų senjorų klubas.

- Staselis, R. (2013, June 11). *Latvija bandė blokuoti paskolą* [Latvia tried to block the loan]. *Verslo žinios*, p. 4. Vilnius.
- Staselis, R. (2015, October 31). Koją kiša ne Rusija: lietuvių brandintą elektros tinklų idėją perima estai [Impediment comes not from Russia: Estonians are taking over an idea of Lithuanians about the electricity grid]. *vz.lt*. <http://www.vz.lt/sectoriai/energetika/2015/10/31/koja-kisa-ne-rusija-lietuviu-brandinta-elektros-tinklu-ideja-perima-estai>. Retrieved 15 Oct 2017.
- Tanasa, A. (2015, February). *Looking beyond the Third Energy Package Projects of Common Interest*. Presented at the Nordic-Baltic Conference 2015, Tallinn. http://www.norden.ee/images/rohemajandus/info/energy2015/energy2015_AndreeaTanasa.pdf. Retrieved 17 Oct 2017.
- Vilpišauskas, R. (2017). The evolving agenda of energy security in the Baltic Sea region: Persistent divergences in the perception of threats and state-market relationship. In *Security in the Baltic Sea region: Realities and prospects* (pp. 187–199). Riga: Latvian Institute of International Affairs.
- Vremya Novostey. (2007, July 25). Baltic republics and Poland lobby Amber pipeline project as an alternative to Nord Stream. Lexis Nexis.



Conclusions: What Has the EU Achieved, and What Is in the Offing?

Jakub M. Godzimirski

The chapters in this book have focused on the evolution of relations involving the EU, member states and external suppliers of energy. The contributors have examined how an important regional and global energy agenda-setter, the EU, projects its power and how two groups of actors—external suppliers of energy to the EU and the member states—have chosen diverse strategies for coping with this structural challenge.

The EU is the most complex multilevel political system in the world today, with actors from the European, national and often subnational levels engaging in joint decision-making and policymaking processes. Focusing on the field of energy, this book has examined the various tensions that shape EU energy governance and its interactions with other actors. There are complex interactions involving the EU institutions responsible for designing and implementing EU energy policy. Then there is the question of how energy policy is made in interaction between the EU at the central level and the member states. Finally, in the field of energy, understanding the governance of member state and EU interactions with

J. M. Godzimirski (✉)
Norwegian Institute of International Affairs (NUPI), Oslo, Norway
e-mail: jmg@nupi.no

© The Author(s) 2019
J. M. Godzimirski (ed.), *New Political Economy of
Energy in Europe*, International Political Economy Series,
https://doi.org/10.1007/978-3-319-93360-3_10

external suppliers of energy is essential in clarifying how the EU can project its powers and how the actors respond.

Our examination has been informed by studies of internal EU governance, not least by experimentalist interpretations of the processes where policies are shaped in constant interaction between member states and the EU. The experimentalist approach is sometimes applied to studying EU relations with external actors, but we have assumed that the EU may also adopt more hierarchical and power-related approaches in its dealings with external actors, including external suppliers of energy.

EU energy policy is shaped through the interaction of many factors and actors. First, there is the EU's 'internal' endowment with and availability of energy resources. Closely interrelated is the question of the member states, their energy resource endowments and energy policy preferences. A third factor concerns the relations of the EU and its member states with external suppliers of the energy that must be imported. Fourthly, there is the question of how the EU's approaches to the use of locally and globally available energy resources have evolved in consequence of the growing concerns for climate change. Finally, it is important to consider how to interact with other actors interested in the same energy resources.

This volume has not aimed to deal exhaustively with all these key questions. Our focus has been on how the EU, its member states and external energy suppliers have adapted to changing circumstances. Placing the EU—here understood as the EU institutional apparatus and bureaucracy with their ideas, procedures and practices—at the centre of analysis, we have examined how its changing understandings of the outside world have influenced its approaches to the question of power projection.

Chapters in Part I scrutinized the impacts of EU normative, regulatory, market and economic power on EU dealings with external suppliers of energy. The EU's shifting energy priorities and focus on building a more sustainable energy system, driven by global climate concerns, can influence the position of external suppliers, as fossil fuels may eventually be 'banned' from the EU due to their harmful impacts on global climate.

Part II focused on how external suppliers of energy and member states have responded to the EU's changing energy priorities. The chapters here examined in detail the various strategies employed by external suppliers seeking to influence the process of designing and implementation of EU energy policy, as well as the national adaptation strategies adopted by Norway, Germany, Poland and the three Baltic states. The study of the latter three and their cooperation and competition in dealing with regional

energy relations also enabled us to present some conclusions on the importance of regional energy cooperation in EU efforts at building a smoothly functioning single internal energy market.

The EU is a pivotal energy agenda-setter, regionally and globally, wielding considerable clout in its dealings with external suppliers of energy. Exactly how the EU uses this power also depends on how the EU understands itself. The EU has adapted to changing external circumstances by modifying its approaches to member states and external suppliers and by applying various types of power to promote its own interests.

As Andreas Goldthau and Nick Sitter argue (Chap. 2), in its dealings with external suppliers of energy, the EU may act according to the principles of trade neutrality, regulatory bias favouring consumers, double bias (favouring consumers but also singling out regulatory targets) and finally with low politics becoming a function of high politics. Depending on circumstances and those involved, the EU can act as a normative power, a regulatory power, a market power or an economic power. Their main conclusion was that although the overall normative (liberal) outlook has not changed, the EU draws on various policy tools as it sees fit and has at its disposal a range of models for global and regional energy governance. This provides considerable flexibility in dealing with the many challenges related to energy. When addressing intra-EU energy-related questions, the EU acts as a liberal actor, using normative power and regulation to make actors who—at least in theory—share the same liberal values and who act according to the set of liberal principles they agreed to when they decided to join the EU. The ultimate intra-EU aim of the EU as a liberal actor is the creation of the well-functioning Single European Market that can secure access to energy—preferably sustainable energy—for all participants. Applied in relations with EU external energy actors, this approach aims at the creation of international regimes to foster free trade and the commitment to international law as the best way of securing supply and market transparency. If, however, these external suppliers are not interested or able to respond positively to the EU's use of its soft liberal or regulatory power arsenal, the EU can apply other, harder, instruments of economic power, like threats or inducements. Finally, the EU can use its economic power as a foreign policy instrument to get others do what they would not have done otherwise.

The EU's relations with Russia can serve as an example here. The EU must cope with its increasing import dependence on actors who are not necessarily interested in playing liberal games but tend instead to act

according to the principles of realist power politics. This requires other tools and can explain why, in dealing with its external suppliers of energy, the EU has gradually moved from a neutral approach to a strategic one. For instance, the EU may use regulation to build and manage markets in ways that favour itself as the main consumer and importer interested in security of supply—instead of favouring external suppliers mainly interested in security of demand. The EU can say something like this: ‘If you, as an external supplier of energy, want access to our EU market, then you must accept the rules that we have set.’ Towards those who do not want to play by the EU rules, other tools may be employed, including hard economic power.

Several chapters have investigated how external suppliers of energy have responded to EU’s use of various types of power. In Chap. 3, Svein S. Andersen and Nick Sitter examined strategies chosen by the EU’s key external suppliers of gas. They found that these external suppliers could choose between delivering gas at the EU’s external borders (and following the EU’s rules on contracts) and participating in the EU mid- and downstream markets and complying with all its rules and regulations. Algeria and LNG suppliers have chosen the first strategy, delivering gas at the EU border.

By contrast, Norway has opted for the second strategy: participation in the EU internal gas market through a policy of innovative adaption, as discussed by Ole Gunnar Austvik in Chap. 6. Russia, the EU’s most important supplier of gas, has embarked on a policy of entering the internal market through cooperation, ownership and joint ventures, while also using commercial contracts to circumvent and undermine internal market regulations, as examined in Chap. 3. This eventually resulted in the Commission’s opening proceedings against Gazprom in 2012 to clarify whether the company and its EU subsidiaries had been hindering competition in Central and Eastern European gas markets. Faced with the dilemma of having to withdraw from the downstream and transit market and simply sell gas at the border, or complying with the EU rules for the single gas market, Gazprom opted to alter its pricing policies dramatically. This shows that the EU can be very successful if it uses the right type of power, also in dealing with the most powerful external supplier of energy.

The EU has been trying to cope with the challenges of import dependence and climate change by building a more sustainable energy system aimed at complete exclusion of fossil fuels from the energy mix and decentralization of energy production within EU borders. Obviously,

that cannot be achieved overnight. However, in a long-term perspective, this policy will pose a threat to domestic producers and external suppliers of fossil fuels, especially those who lack easy access to alternative energy markets or who have invested heavily in infrastructure linking their energy production sites with consumers in the EU. This shows that the EU can influence the position of external suppliers not only by projecting the four types of power listed above but also by projecting its ideas on the future energy system. As Indra Overland demonstrates in Chap. 4, Norway stands out among the EU's current external suppliers of fossil fuels as best prepared for meeting the challenge of decarbonization. Norway has another, more sustainable and well-developed energy resource—hydropower—that can help the EU and individual member states to balance their increasingly more intermittent energy mixes. Moreover, Norway has huge unexploited potentials for wind power development, as well as other possibilities for supplying the EU with more sustainable energy, including hydrogen. In addition, several other political and 'ideational' components make Norway well suited for developing other forms of energy cooperation with the EU. Norway shares EU values and is anchored in many key Western institutions (as one the founding fathers of NATO and linked to the EU through EEA), making cooperation less hazardous in political and security terms; and it has accepted decarbonization as the best way of mitigating climate risks.

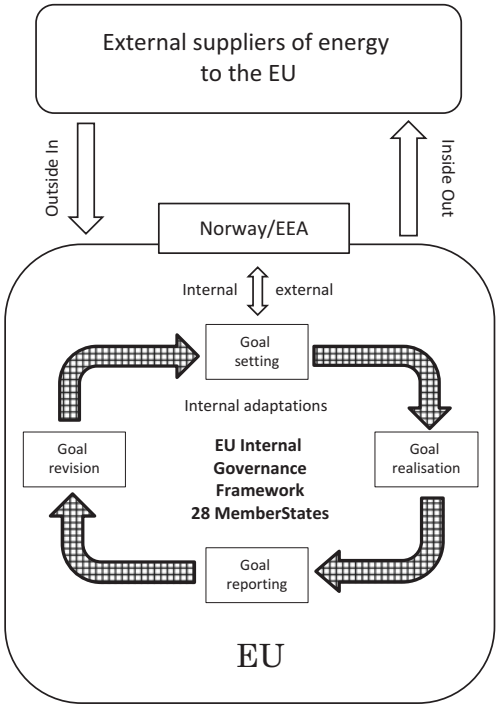
The specific relationship between Norway and the EU and the impacts on Norwegian energy policy and EU perceptions of Norway as a strategic energy partner are dealt with in several chapters. Jakub M. Godzimirski (Chap. 5) examines ways of influencing EU energy policies that Norway and Russia can use in dealing with the EU. Ole Gunnar Austvik (Chap. 6) sees Norway's 1994 decision to join the EEA and thereby accept the EU regulatory framework, as the organizational factor underlying not only Norway's energy relations with the EU but also the development of its own energy sector. (And here it should be noted that this focus on Norway is hardly surprising, as this book originates in a research project mapping Norway's energy relations with the EU in the broader political and institutional European context, locating these relations on the autonomy–integration axis.)

Contributions to Part II study various strategies adopted by Norway and Russia in seeking to influence EU energy policymaking (Chap. 5, by Jakub M. Godzimirski) and the adaptation strategies adopted by Germany (Chap. 7, by Kirsten Westphal), Poland (Chap. 8, by Aleksandra Gawlikowska-Fyk)

and the three Baltic states (Chap. 9, by Vija Pakalkaitė and Joshua Posaner) in response to the EU’s use of its normative, regulatory, market and economic power. With the external actors Norway and Russia, the focus was on the form of their presence in Brussels and various policy instruments used for influencing EU energy policy to avoid damage to their current and future interests. With the member states examined here, contributors focused on how they have adapted to EU energy expectations without relinquishing their own priorities concerning national energy—and, with Germany, climate priorities as well. Godzimirski’s Chap. 5 on channels of influence surveyed how the actors present in Brussels work to get the EU to take their interests into account, by examining in detail their communicative and lobbying efforts aimed at policymakers in Brussels (Fig. 10.1).

The ‘country-focused’ chapters (6, 7, 8 and 9) have provided detailed accounts of national adaptations and how the states in question have adjusted their policies to meet the EU’s normative and regulatory expectations and

Fig. 10.1 Conceptual framework



how they have sought to influence the EU. We see that, although the states that have decided to become full-fledged EU members have had to accept greater integration and less autonomy in their relations with Brussels, their ability to defend and promote their interests within the EU, as well as the way they relate to EU expectations, hinges not only on their physical size or importance for the EU but also on their capabilities and powers in absolute or relative terms. Depending on how they define the importance of their relationship with the EU and how capable they are of shaping this relationship in line with their own national interests, they may have some success in setting the EU agenda and in achieving greater autonomy within the EU—or be forced to accept deeper integration not always advantageous to their narrowly understood national interests.

This autonomy-versus-integration dynamics is characteristic of the situation developing in and around the EU. Detailed examination of the three adaptation strategies (Chaps. 7, 8 and 9) shows how states with broader capabilities have a broader set of options at their disposal, with more policy options available within and outside of the EU. Such capabilities may involve the control of strategic territories and resources, economic resources and financial assets, and political resources such as status and reputation, as well as administrative resources, knowledge and expertise. Chapter 7 by Kirsten Westphal shows how German energy policy is realized both within and outside the EU and is characterized by a high level of effectiveness—as with the Nord Stream 2 project, where Germany decided to confront parts of the EU bureaucracy and some of its EU partners, defending what some in Germany defined as the country's strategic economic and political interests. Having greater organizational capabilities—understood here as the ability to sequence and combine various forms of policies to achieve specific policy goals—expands the scope of strategic choices to be made by the states in choosing between greater autonomy and deeper integration/adaptation to the rules set by supranational bodies, especially when the states in question can play an active part in setting the energy agendas of these supranational bodies.

Finally, Chaps. 8 (Gawlikowska-Fyk) and 9 (Pakalkaitė and Posaner) show how states with limited capabilities—Poland and the three Baltic states—have had to find ways of bringing their energy policies in line with the EU, also involving circumvention and dealing with EU expectations without necessarily abandoning their own energy interests. Newcomers to the internal EU games, they needed EU support to catch up with the EU and be able to *connect*, literally, with the existing EU energy market. And

yet, these countries have managed, at least partly, to defend their own national energy interests—even when this obstructed the development of more effective regional cooperation, as in the Baltic case, or caused problems in their cooperation with the EU, as was the case with Poland and its unwillingness to cut its overwhelming dependence on highly polluting coal as its main national energy resource. Due to structural factors, like the huge deposits of hard coal and lignite that provide most of the energy resources needed to cover its energy demands, Poland has shown deep reluctance towards phasing out fossil fuels from its energy mix, fearing this could undermine the competitiveness of its coal-fuelled economy and make it even more dependent on energy supplies from Russia, which is viewed as a possible strategic threat. However, Polish policymakers seem to have realized that opposing the EU's calls for greater sustainability in the energy mix and reducing the environmental footprint of energy would prove too costly in political terms. In addition, there is also growing realization that Polish coal has its own structural limitations and that the pollution caused by its use has negative social impacts—making it important to look for other solutions.

Therefore, Poland decided to involve the EU in a new energy-related project, launching in 2014 the idea of Energy Union aimed at helping both Poland and the EU to address the problem of dependence on energy resources coming from beyond the EU borders, especially the issue of gas dependency on Russia. This move can be seen as Poland executing its right to propose new solutions to problems to be dealt with in close cooperation between the EU and the member states. Russia is the key external supplier of energy to the EU, and this needs to be reflected in EU energy policy and governance. When Poland proposed the Energy Union as a new way of dealing with energy-related risks and challenges, the proposal had to go through the EU policymaking machinery. Poland exerted its right as a member state to promote its own energy interests and provided inputs that could be incorporated, rejected or modified by the EU. As described in Chap. 8, the idea of an Energy Union was adopted but with a slightly modified content more in accordance with the EU's overall strategic energy goals. In addition, the Polish authorities decided to embark on the development of urban electromobility infrastructure as a way of coping with environmental challenges caused by overdependence on coal.

With the three Baltic states (Chap. 9), the main achievement of their regional and national strategies was to end their energy insularity within the EU and begin the diversification of gas supplies away from Russia. Unfortunately, the three were not able—or willing—to coordinate their

national policies, causing delays and the shelving of some projects. However, they received financial and organizational support from the EU that made it possible to realize their national and regional adaptation strategies. They managed to build a regional energy market, link it to other parts of the EU internal energy market and cut their energy dependence on Russia—thanks to their combined and not always unproblematic efforts, supported by the EU.

Summing up, the main findings presented in this book are as follows:

- The impact of EU regulations on export of fossil and non-fossil fuels by external energy suppliers (quasi-EU insider Norway, Russia, Algeria and suppliers of LNG) to the EU is very strong and growing, as shown in Chaps. 2, 3, 5 and 6.
- The EU's ability to project its normative, regulatory, market and economic power (as discussed in Chaps. 2 and 3) and the projection of EU ideas on the need to build a more sustainable energy system (Chap. 4) are key factors influencing the current and future position of external suppliers to the EU market.
- The same factors play an important part in the choices made by fully-fledged member states in responding to EU energy priorities, as documented in Chaps. 7, 8 and 9 on the national energy policies of Germany, Poland and the three Baltic states.
- Norway, a member of the European Economic Area, has responded to the challenges of EU energy governance and regulatory and market power through innovative adaptation and greater integration, becoming a 'quasi-EU member' that follows the rules set by the EU but without access to EU's decision-making and policymaking processes (Chap. 6).
- Norway has a relatively privileged position on the EU energy market and in the EU institutional framework. This is due to two factors: its strategy of innovative adaptation (analysed in Chaps. 3 and 6) and the resultant higher level of institutional integration, better developed infrastructure, direct access to the EU market without transit-related risks, a more sustainable national energy system and political interconnectedness with major EU importers of energy—who also happen to be allies of Norway.
- Like all major external suppliers of fossil energy, Norway must cope with the growing fossil-fuel scepticism in the EU and in key member states.

- Norway and Russia, the EU's two major external suppliers of energy, use various channels, formal and informal networks and structural power to influence decisions that could affect their positions on the EU market. Chapter 5 scrutinized these formal and informal channels, focusing on energy stakeholders, how they are represented in the EU and how they seek to influence the processes shaping EU energy policy.
- Access to the EU energy market plays a crucial role in Norway's adaptation strategy; Norway is aiming for greater market diversification, sending its energy to new markets (Lithuania and Ukraine) and planning to send gas to Poland and other customers in Central and Eastern Europe. It has also begun strengthening its connections to the continental grid by building new interconnectors and becoming better connected with a market that needs Norway's backup capacity to deal with the intermittency characteristic of greener energy systems now being developed in the EU.
- Norway is well placed to remain an important supplier of energy, also if the EU succeeds in developing a greener energy system. Norwegian gas is seen as an important transition fuel and a politically safer alternative to Russian gas; Norwegian hydropower is an additional energy asset useful as backup; and Norwegian wind power—if developed—could provide sustainable energy in line with the EU's decarbonization agenda.

WHAT IS IN THE OFFING?

Vaclav Smil has a deep understanding of past energy transitions; his historical examinations provide clues on how the ongoing transition could be completed (Smil, 2017a, 2017b). Daniel Yergin (2013) examined the possible futures of global energy system in a brief but very informative piece published only weeks before the events in Ukraine that dealt a heavy blow to thinking of Europe as a peaceful place and Russia as a potential strategic partner, also in the field of energy (Gaub & Popescu, 2015; Haukkala & Popescu, 2016).

Yergin (2013) discusses several scenarios regarding the future of energy. The first one is *Global Redesign*, with global growth resuming after the 2008 crisis and the world facing rapid economic growth combined with increased demand for energy. This increased demand for energy is met by two sets of advances: the unconventional revolution in oil and gas and

continuing declines in the cost of renewables. Conventional oil and gas also enter a new growth era in this scenario, according to which world energy could support a doubling in the world economy between 2010 and 2030. In his second scenario, labelled *Meta*, or the Age of Renewables and Electric Transportation, the main driving force in the energy transition is the concern for climate change. Governments support the development of renewable energy resources with subsidies and mandates. The new oil crisis, with high prices caused by political turmoil and environmental catastrophes in key production areas, gives an additional boost to this green transition, opening a new era of energy innovation, with technological breakthroughs in battery technology driving global development of electromobility and return of nuclear power as an important source of energy. Yergin's third energy scenario is *The Turbulent Times of Vortex*, in a world characterized by turmoil and volatility. In this scenario, the future energy mix will be similar to that of today but with coal playing an even greater role. The reason is a series of crises resulting in 'the rise of protectionism, a backlash against markets, a vindictive search for scapegoats, much greater government intervention in economies and stultifying regulation that stunt private sector investment' (Yergin, 2013). Due to relatively slow economic growth, prices of oil and other commodities fell, and low-cost coal emerges as the winner in this scenario.

From the point of view of the EU, which promotes the development of a greener energy system as a way of mitigating climate-related risks, the Meta scenario is preferable. However, even EU assessments of the energy future paint a less optimistic picture, where the transition to more sustainable energy will take a long time (European Commission, 2016). According to this EU study, by 2050 fossil fuels will still account for 64 per cent of gross inland energy consumption, with coal and oil losing ground and gas increasing its share slightly. Renewables will represent 25 per cent and nuclear energy 11 per cent of consumption, which is expected to fall due to better energy efficiency and decoupling of demand for energy and economic growth. Although falling energy consumption will result in lower demand for energy, the EU will still face the challenge of growing import dependence, expected to increase in relative terms from 53 per cent in 2015 to 58 per cent by 2050, due mostly to lower domestic production of fossil fuels.

Thus, in the coming decades, the EU will remain exposed to a range of external energy-related risks. A good understanding of what these risks could be is provided in the most recent examination of global risks

published by the WEF (World Economic Forum, 2018). Many of the risks are related to energy. Critical here is the failure of climate-change mitigation and adaptation efforts, listed as the fifth most likely and fourth most impactful of the risks. This focus on climate change can be explained by the fact that emissions of CO₂ rose in 2017 for the first time in four years, partly a result of developments in China, where heat waves led to increase in energy consumption, while extreme drought brought a switch from hydro- to coal-fired power generation (ibid., p. 13). Also several other energy-related risks feature among the top global challenges (see Table 10.1). What is referred to as ‘oil and gas price spikes’, ‘energy price volatility’ or ‘severe energy price shocks’ means significant energy price increases or decreases that put economic pressure on highly energy-dependent industries and consumers—also the EU, which is set to remain as the world’s biggest importer of energy.

This updated risk examination with some historical data on the recent past can provide a useful point of departure for a brief concluding examination of the energy-related challenges the EU and member states will be facing in the near future. The most serious challenge may well be how to speed up the process of building a more sustainable energy system at regional and national levels, for tackling the challenges of climate change. The creation of a more sustainable energy system in the EU with decentralized production based on locally available renewable energy resources should also help the EU and member states to reduce their import dependence in a situation where Russia has embarked on a more

Table 10.1 Energy-related risks among top five risks in terms of likelihood/impact (WEF The Global Risks Reports 2008–2018)

<i>Risk</i>	<i>2008</i>	<i>2009</i>	<i>2010</i>	<i>2011</i>	<i>2012</i>	<i>2013</i>	<i>2014</i>	<i>2015</i>	<i>2016</i>	<i>2017</i>	<i>2018</i>
Oil and gas price spike	4/4	−/3	−/3	−/−	−/−	−/−	−/−	−/−	−/−	−/−	−/−
Extreme energy price volatility	−/−	−/−	−/−	−/5	−/5	−/−	−/−	−/−	−/−	−/−	−/−
Severe energy price shock	−/−	−/−	−/−	−/−	−/−	−/−	−/−	−/−	−/5	−/−	−/−
Climate change	−/−	−/−	−/−	5/2	−/−	4/2	−/−	−/−	−/−	−/−	−/−
Failure of climate-change mitigation and adaptation	−/−	−/−	−/−	−/−	−/−	−/5	−/−	−/5	−/−	−/−	5/4

revisionist and aggressive policy and is viewed by the Western community more as a long-term challenge than a possible strategic partner.

This may not be good news for the proponents of an EU green energy revolution and those who fear that greater import dependence will make EU more vulnerable to external pressures, perhaps entangling it in conflicts with other powers, like China, thirsting for energy from same sources (Novati & Montanini, 2016; O'Hara & Lai, 2011; Odgaard & Delman, 2014; Sharples, 2016). However, it may be relatively good news for external suppliers of energy to the EU. Although the volume of energy imports is expected to be lower, due to falling consumption, the EU will still be an important market for supplies of gas and oil and, to a lesser degree, of solid fuels as well. Especially external suppliers of gas—perhaps except Russia—can look to a brighter future, as domestic production of gas in the EU is set to fall drastically, while gas will remain the least controversial of fossil fuels due to its lower environmental footprint and image as the best available transition and backup fuel. Its role in the future energy mix may even be strengthened if a workable CCS solution can be found (Cornot-Gandolphe, 2018). This is, however, not necessarily the case for Russian gas, which is viewed in many EU capitals as entailing political and security risks. This is also one reason why some Russian energy projects—such as the Nord Stream 2—have become controversial: as put in a recent study on Russian–German gas cooperation: ‘Russian gas supplies are under scrutiny as being an antagonist to 1) a more sustainable energy system, 2) a norm-based liberal political and economic order, and 3) as a major challenge to the process of EU integration’ (Westphal, Bros, & Mitrova, 2017, p. 5).

Various developments may influence future relations between the EU and external suppliers of energy and between the EU and member states. One is what the WEF refers to as ‘shifting power’: that the EU’s power to define the rules of the energy game may be challenged when power—economic or political—shifts from state to non-state actors and individuals, from global to regional levels and from developed to emerging markets and developing economies (World Economic Forum, 2018, p. 62). Crucial impacts may result from technological developments, such as breakthroughs in energy technologies, including advanced batteries and fuel cells, orbiting solar arrays, tidal energy capture, wind and bioenergy, as well as advances in nuclear fusion containment, smart grid systems, wireless energy transfer and greater efficiencies in fuel-cell fabrication (for more on technological aspects related to energy security, see Kenderdine & Moniz, 2013; World Economic Forum, 2017, p. 64).

The recent shale gas and oil revolution is one example of how a technological breakthrough can change energy markets as well as politics, creating new framework conditions for energy policymaking, trade and governance (O'Sullivan, 2017).

We cannot predict what the next technological energy revolution will be—but the EU, its member states and external suppliers of energy will have to learn how to live and interact in this 'brave new energy world', in which there will necessarily be some winners and some losers. To avoid ending up among losers, these actors will need to show how they can adapt to changing energy and political circumstances. And so, the adaptation game will go on and on.

REFERENCES

- Cornot-Gandolphe, S. (2018). Le gaz dans la transition énergétique européenne: enjeux et opportunités. *Études de l'Ifri*. Paris: IFRI. https://www.ifri.org/sites/default/files/atoms/files/cornot-gandolphe_gaz_transition_energetique_2018.pdf. Retrieved 30 Jan 2018.
- European Commission. (2016). *EU reference scenario 2016. Energy, transport and GHG emissions. Trends to 2050*. https://ec.europa.eu/energy/sites/ener/files/documents/ref2016_report_final-web.pdf
- Gaub, F., & Popescu, N. (2015). The EU neighbours 1995–2015: Shades of grey. *Chaillot Papers: 136*. Paris. https://www.iss.europa.eu/sites/default/files/EUISSFiles/Chaillot_Paper_136.pdf. Retrieved 15 Dec 2017.
- Haukkala, H., & Popescu, N. (Eds.). (2016). *Russian futures. Horizon 2025* (Vol. 26). Paris: EU Institute for Security Studies.
- Kenderdine, M. A., & Moniz, E. J. (2013). Technology development and energy security. In J. H. Kalicki & D. L. Goldwyn (Eds.), *Energy and security: Strategies for a world in transition* (pp. 378–421). Washington, DC: Woodrow Wilson Center Press/Johns Hopkins University Press.
- Novati, G. P. C., & Montanini, M. (2016). Energy and the regional players: The odd rivalry between the EU and China in Africa. In J. M. Godzimirski (Ed.), *EU leadership in energy and environmental governance? Global and local challenges and responses* (pp. 135–155). Basingstoke: Palgrave Macmillan.
- O'Hara, S., & Lai, H. (2011). China's "Dash for Gas": Challenges and potential impacts on global markets. *Eurasian Geography and Economics*, 52(4), 501–522. <https://doi.org/10.2747/1539-7216.52.4.501>.
- O'Sullivan, M. L. (2017). *Windfall: How the new energy abundance upends global politics and strengthens America's power*. New York/London/Toronto/Sydney/New Delhi: Simon & Schuster.

- Odgaard, O., & Delman, J. (2014). China's energy security and its challenges towards 2035. *Energy Policy*, 71(0), 107–117. <https://doi.org/10.1016/j.enpol.2014.03.040>.
- Sharples, J. D. (2016). The shifting geopolitics of Russia's natural gas exports and their impact on EU-Russia gas relations. *Geopolitics*, 21(4), 880–912. <https://doi.org/10.1080/14650045.2016.1148690>.
- Smil, V. (2017a). *Energy and civilization: A history*. Cambridge, MA: MIT Press.
- Smil, V. (2017b). *Energy transitions: Global and national perspectives*. Santa Barbara: Praeger.
- Westphal, K., Bros, A., & Mitrova, T. (2017). German–Russian gas relations. A special relationship in troubled waters. *SWP Research Paper: 2017/RP 13*. https://www.swp-berlin.org/fileadmin/contents/products/research_papers/2017RP13_wep_EtAl.pdf. Retrieved 20 Jan 2018.
- World Economic Forum. (2017). *The global risks report 2017* (12th edn.). Geneva: World Economic Forum. http://www3.weforum.org/docs/GRR17_Report_web.pdf. Retrieved 15 Dec 2017.
- World Economic Forum. (2018). *The global risks report 2018* (13th edn.). Geneva: World Economic Forum. http://www3.weforum.org/docs/WEF_GRR18_Report.pdf. Retrieved 29 Jan 2018.
- Yergin, D. (2013). Power in 2030. The roads we may take. *IHT Magazine*, 27 November. http://www.nytimes.com/2013/11/28/opinion/power-in-2030-the-roads-we-may-take.html?_r=0. Retrieved 15 Dec 2017.

INDEX¹

A

- Ability, 1, 3, 8, 10, 12, 13, 18, 19, 28, 38, 43, 50, 157, 175, 196, 245, 247
- Access, 4, 14, 15, 32, 34, 35, 54, 58, 59, 62, 68, 107, 119–121, 126, 127, 129, 130, 140, 141, 146, 150–153, 169, 173, 188, 205, 219, 220, 224, 230, 241–243, 247, 248
- Actors in energy policymaking, 15, 130
- Adjustment, policy, 154
- Administration, 142, 205
- Adoption, policy, 11
- Advocacy, 130, 206
- Affiliation, 13, 106, 121, 157
- Affordability, 125
See also Energy security
- Africa, 77, 141, 186
- Africa–EU, 66, 75, 93, 150
- Agency, 54, 172, 218
- Agenda, 10, 14–17, 19, 20, 28, 39, 50, 58, 105, 106, 123, 141, 147, 149, 176, 177, 179, 183, 187–189, 202–204, 206–211, 245, 248
- Agenda-setting, EU, 3, 15, 18, 165, 175, 188, 189, 239, 241, 245
- Agenda setting, member states, 175
- Agreement, 58, 59, 62, 109, 145–148, 151, 157, 159, 181, 185, 196, 201, 204, 208, 216, 222, 230, 231
- Alliance, 120, 144, 158
- Alternative energy sources, 243
- Amendment, 169, 170, 181, 184, 210
- Angola, 17, 144
- Antitrust regulations, 38, 50, 73
- Application of EU regulations, 62, 148
- Arbitration, 149, 159
- Arctic, 82, 124
- Arena, EU as a policy arena, 113
- Armenia, 80

¹ Note: Page numbers followed by ‘n’ refer to notes.

Assessment, future energy system, 249
 Asymmetry/asymmetric energy relations, 5
 Atlantic, 39, 166, 179, 202
 Atomic, 181
 See also Nuclear
 Attractiveness, of the EU as energy market, 32
 Auction, 36
 Australia, 66, 75, 79, 93
 Austria, 38, 60, 146, 181, 183, 205n2
 Authoritarianism, 90
 Autonomy, 3, 5–7, 9, 10, 13, 14, 20, 54, 245
 Autonomy–integration, 3, 243
 Autonomy *vs.* integration, 10, 12
 Azerbaijan, 144

B

Balance, energy balance in the EU, 187, 243
 Balkans, 33, 187
 Baltic Energy Market Interconnection Plan (BEMIP), 175, 221, 222
 Baltics, 9, 19, 38, 39, 62, 68, 206, 215–231, 246
 Baltic Sea, 36, 184, 186, 201, 206, 220, 221, 229
 Baltic states, 15, 39, 40, 50, 56, 215–224, 226–231, 240, 244–247
 as an energy island, 15, 215, 228
 Barents, 82
 Bargain, 6, 42, 178, 202, 203
 Barnett, M., 35
 See also Shale gas and oil revolution
 BASF, 172
 Basic, 7, 29, 37, 145, 149, 150, 154
 Batteries, new technology, 249, 251
 Belarus, 218, 227
 Belgium, 57, 111, 123, 124
 Bellona, 114

Berlin, 166, 171, 175, 177, 181, 189
 Bilateral energy relations, 3
 Biofuels, 171
 Biomass, 173, 209
 Border, delivery of gas at, 242
 Boundaries, 35, 171
 Bovananenkovo, 183
 See also Yamal
 Brexit, 8, 10, 39, 67–69, 68n12, 149
 Brussel, 31, 42, 60, 88, 109–111, 115, 117, 121, 122, 124–128, 130, 150, 155, 166, 173, 175, 178, 183, 184, 187, 189, 217, 219, 221, 244, 245
 Bulgaria, 35, 42, 111, 204, 205n2, 227

C

Canada, 79
 Capabilities, in policy, 10, 12
 Capacity, 3, 9, 12, 18, 32, 36, 38, 56, 58, 60, 63, 68, 76, 78, 83–86, 88, 125, 172, 173, 177, 180, 181, 183, 201, 206, 208, 209, 222–224, 226, 228, 248
 Carbon capture and storage (CCS), 81, 118, 124, 251
 Caspian, 35, 40
 Catastrophe, 168, 249
 See also Fukushima
 Central and South-Eastern Europe Connectivity (CESEC), 204
 Challenge, 1–4, 6, 8, 10–12, 14, 16–20, 28–30, 43, 55, 62, 64, 67, 73–94, 114, 119, 129, 131, 140, 141, 149, 152, 155, 166, 168, 176, 181, 195–211, 219, 239, 241–243, 246, 247, 249–251
 Champion, national, 30
 Chernobyl, 168
 Chevron, 50, 141
 China, 28, 39, 76, 80, 186, 250, 251

- Chizhov, Vladimir, 127–129
 permanent representative, 127, 128
 Russian delegation to the EU, 127
- Choice, in energy policy, 13, 15,
 16, 19, 109
- Clause, legal, 33
- Clean energy, 85
- Climate, 11, 16, 17, 20, 77–79,
 83–85, 88, 92, 116–118,
 122–124, 141, 171, 176–178,
 187–189, 196, 202, 204,
 206–211, 240, 243, 244
- Climate change, 11, 30, 51, 55, 88,
 124, 131, 141, 150, 165–189,
 208, 240, 242, 249, 250
- Climate-neutral, 170
- Climate policy, 55, 73–94, 105, 142,
 149, 166, 176, 177, 187–189,
 196, 198, 200, 204, 207–211
- Clingendael, 185
- CO₂, 76, 79, 91, 141, 199, 250
 See also Greenhouse gases (GHG)
- Coal, 8, 16, 19, 51, 75, 89, 92, 93,
 118, 167, 170, 172, 180,
 195–200, 208–211, 246, 249
- Coalition, 120, 130, 168, 169, 171,
 177, 188
- Co-burning, coal and renewables, 209
- Cohesion, policy, 3, 50
- Colombia, 74, 75, 77, 92, 93, 107
- Commissioner, 127, 128
- Committee, 145
- Committee on Industry, Research and
 Energy, European Parliament
 (ITRE), 124
- Commodities, 31, 51, 67, 75, 106,
 108, 109, 111, 117, 171, 175,
 201, 249
- Common Foreign and Security Policy
 (CFSP), 150, 159
- Commonwealth of Independent States
 (CIS), 216, 218, 226
- Company as an actor, 130
- Company as a stakeholder, 108
- Competence, 156, 159, 176, 184, 197
- Competition, 6, 7, 30, 33, 35, 37, 38,
 41, 50, 52, 59, 60, 62, 66, 68,
 75, 89, 92, 116, 118, 140, 145,
 147, 148, 151–153, 157, 172,
 176, 181–183, 185, 201, 211,
 215–231, 240, 242
- Competitive advantage, 125, 130
- Competitiveness, 1, 7, 18, 19, 38, 55,
 152, 165–189, 207, 246
 See also Competitive advantage
- Comprehensive approach to energy
 policy, 150
- Concessions in energy policy, 154
- Connecting Europe Facility (CEF),
 220, 221, 228
- Connectivity, 8, 86, 182, 189, 202,
 210, 224, 226, 245, 248
 See also Interconnector
- Consensus, 11, 42, 122, 126, 174,
 178, 183, 186, 209, 210, 216
- Constraints in energy policy, 77
- Consumption, 55, 76, 77, 86, 88, 89,
 107, 125, 165, 168, 177, 180,
 196–199, 197n1, 217, 218,
 249–251
- Contestation, 37
- Context, 2, 3, 6–8, 10–15, 17, 18, 29,
 32, 36, 38, 40, 43, 76, 91, 92,
 106, 111, 127, 130, 142, 166,
 175–180, 185, 243
- Contract, 28, 30, 32–34, 51, 52, 56,
 58, 61–63, 65–67, 109, 118,
 152, 153, 201, 203, 205, 218,
 222, 223, 242
- Contract-based, 64
- Cooperation/cooperative, 5, 6, 11,
 12, 14, 16, 17, 19, 20, 39, 52,
 85, 89, 106, 116, 117, 120,
 123–125, 127–130, 140,
 150–156, 173, 177, 180,
 185, 187, 188, 201, 202,
 205, 215–231, 240–243,
 246, 251

Corporate actors in energy policy, 109, 127
 Corporate governance, 170
 Corporations as stakeholders, 170
 Corruption, 54, 90, 126
 Crimea annexation, 28, 35–37, 40, 62, 127, 130, 168, 179, 187, 203
 Crisis, 3, 4, 19, 34, 36, 38, 39, 63, 129, 141, 178, 179, 185, 187, 202, 203, 205, 218–220, 248, 249
 Croatia, 205n2
 Czech, 36, 116, 181, 201, 205n2, 206, 227

D

Damage, 3, 244
 Deal making in energy policy, 8, 11, 17, 40, 149, 171
 Decarbonization, 2, 15, 17, 75, 92, 178, 179, 195–211, 243, 248
 Decision-makers, 18, 113, 126, 129, 200
 Decision-making, 5, 8, 54, 59, 111, 120, 145, 157, 167–175, 181, 216
 Demand and supply in energy market, 1, 4, 12, 40, 56, 64, 73–75, 77–79, 81, 91–93, 107, 108, 118, 131, 140, 172, 196, 197, 199, 200, 205, 206, 215, 217, 218, 246, 248, 249
 Democracy, 3, 28
 Demonopolization, 170
 Denmark, 10, 58, 78, 83, 84, 116, 125, 126, 177, 178, 186, 202, 207, 221
 Dependence, 5, 14, 19, 50, 62, 67, 116, 141, 158, 185, 198, 201, 202, 204, 210, 216, 218, 246, 247

Dependency, 37, 53, 55, 59, 90, 93, 149, 167, 170, 171, 174, 185, 246
 Depoliticization, 144
 Destination clauses, 33, 52, 61, 65
 Diesel, 80
 Diplomacy, 6, 109, 204
 Directive, 9, 30, 140, 145, 148, 151, 153, 154, 157, 176, 184, 223
 Discovery, 93, 156
 Discussion, 29n1, 88, 91, 116, 123, 125, 174, 181, 182, 185, 196, 199, 202, 203, 205, 209, 216, 221, 225, 229
 Dispute, 28, 35, 62, 67, 159, 187, 202
 Disruption, 63, 223
 Diversification, 19, 66, 131, 185, 189, 195–211, 215, 222, 246, 248
 Divide-and-rule, 62
 Divisive issues, 37
 Domestic, 5–9, 33, 39, 54, 63, 64, 66, 86, 92, 143–146, 151, 152, 154, 155, 159, 165–167, 175, 180, 181, 195, 196, 197n1, 198, 200, 203, 204, 207, 208, 211, 216, 231, 243, 249, 251
 Downstream, 32, 35–37, 52, 62–64, 67, 145, 148, 153, 173, 242
 Drilling, 81
 Driver, 55
 Dutch, *see* Netherlands

E

Economics, 1–3, 5–7, 9–11, 14, 18, 19, 29, 30, 34, 35, 37, 39, 40, 52, 62, 67, 77, 83, 89, 91, 93, 106, 109, 113–117, 119, 126, 140, 142, 144, 146, 147, 151–153, 155–160, 166, 171, 175, 178, 179, 182, 183, 185, 189, 199, 200, 207–209, 218, 230, 245, 248–251

- Economy, 5, 7, 10, 15, 16, 19, 27, 30, 31, 38, 39, 41–43, 49, 50, 54, 68, 141, 143, 151, 152, 156, 166, 167, 171, 173, 174, 179, 188, 189, 196, 198, 207, 208, 220, 246, 249, 251
- EEA, *see* European Economic Area
- EFTA Surveillance Authority (ESA), 145, 146, 154, 157, 158
- Egypt, 65
- Ekofisk, 57, 93
- Electricity, 16, 19, 30, 39, 74, 77–79, 83–84, 87, 88, 90, 92, 113, 123, 140, 142, 147, 152, 154, 166, 171, 172, 174, 178–182, 196, 199, 200, 216–221, 224, 226–230
- Electromobility, 19, 209, 210, 246, 249
- Emissions, 74–76, 80, 86, 88, 89, 92, 125, 141, 168, 174, 177, 177n5, 178, 208–211, 250
- Emissions trading system (ETS), 177, 200, 208, 209
- Energiewende*, 18, 165–189
- Energy bureaucracy, EU, 120, 121, 129, 240, 245
- Energy Charter Treaty (ECT), 31, 33, 61, 187
- Energy efficiency, 74, 86, 89, 91, 107, 125, 141, 165, 168, 171, 177, 177n5, 179, 187, 188, 204, 249
- Energy exporters, 13, 31, 115
- Energy Information Agency (EIA), 74, 184
- Energy insularity, 19, 246
 - See also* Baltics
- Energy mix, 8, 16, 17, 74, 92, 116, 118, 120, 123, 124, 166–176, 189, 196–200, 208–210, 242, 243, 246, 249, 251
- Energy package
 - First, 147, 152, 220
 - Second, 147, 154
 - Third, 36–38, 53, 129, 147–149, 154, 184, 202, 206, 219
- Energy policy, 1–4, 7–12, 14–19, 28–30, 34–43, 50, 54, 55, 56n7, 60, 73–94, 105–131, 140, 141, 145–158, 160, 166–168, 170–180, 182, 183, 186–189, 195–198, 200–202, 204, 206, 208, 209, 211, 216, 239, 240, 243–248
- Energy poverty, 81
- Energy saving and conservation, 107, 142, 165, 177
- Energy security, 19, 20, 37, 66, 73, 84, 93, 117, 125, 149, 150, 165–189, 195, 197, 200–206, 211, 215, 219, 225, 231, 251
- Eni, 172
- Environment/environmental, 1, 11, 12, 19, 20, 41, 42, 55, 59, 113, 116, 117, 121, 131, 141, 148–150, 153, 176, 178, 184, 195, 196, 206–211, 217, 226, 229, 246, 249, 251
- Estonia, 19, 56, 215–218, 220–230
- ETC, 31
- Euro, 10
- Euromaidan, 141
- Europe, 1–20, 27–43, 62, 63, 65, 67, 76–81, 78n3, 85, 88, 89, 91, 114, 119, 123, 124, 126, 130, 147, 149, 165, 176, 183, 201, 203, 207, 218, 227, 229, 230, 248
- European Commission (EC), 1, 11, 32, 33, 37, 41, 65, 66, 74, 85, 107, 108, 113, 127, 129, 147, 175, 177–180, 182, 184, 186, 201, 203, 211, 217, 220–226, 228, 231, 249
- European Economic Area (EEA), 2, 4, 9, 12, 13, 32, 33, 56–59, 106, 120, 121, 140, 145–147, 154, 155, 187, 243, 244, 247

European Economic Area (EEA)
 Agreement, 52, 58, 59, 116n11,
 139, 140, 145–151, 154–157
 European Energy Programme for
 Recovery (EEPR), 220, 228
 European External Action Service
 (EEAS), 159
 European Free Trade Area (EFTA),
 58, 145–147, 154, 155, 157
 European Investment Bank (EIB), 223
 European Neighbourhood Policy
 (ENP), 187
 European Network of Transmission
 System Operators for Electricity
 (ENTSO-E), 174, 181, 230
 European Parliament (EP), 37, 66,
 113, 203, 211
 Euroscepticism, 150
 EU–Russia, 3, 35, 61, 106, 114,
 117, 127–130
 Evaluation, 55, 229
 Evolution, 74n1, 93, 239
 Exceptions, 8, 54, 56, 130, 142,
 154, 202
 Exclusive Economic Zone (EEZ), 183
 Exemption, 10, 36, 62, 178,
 206, 207
 Exploration, 59, 61, 81, 82, 93
 Export, energy, 80, 90
 Exporters, 11, 13, 14, 31–33,
 51, 52, 60, 66–69, 76, 93,
 117, 118, 140, 146, 158, 197,
 201, 204
 Extraction, 58, 174
 Extra-EU, 13, 15

F

Failure, 2, 33, 34, 66, 80, 130, 149,
 159, 204, 220, 225, 250
 Feasibility, 219, 222, 227, 229
 Financing, 38, 185, 217, 219–221,
 225, 228

Finland, 78, 111, 146, 216, 220–222,
 224, 226, 228–230
 Flexibility, 54, 68, 75, 181, 205,
 206, 241
 Floating Storage and Regasification
 Unit (FSRU), 222–224
 Flows, energy, 189, 206
 Foreign policy, 33, 35, 36, 38–40, 43,
 50, 52, 60, 63, 67, 159, 183,
 185, 186, 241
 Fossil energy, 2, 11, 13, 17, 118,
 141, 247
 Fossil fuel, 2, 10, 11, 13–15, 17, 51,
 55, 74, 75, 77–79, 116, 131,
 165, 167, 171, 179, 186, 196,
 197, 199, 203, 240, 242, 243,
 246, 247, 249, 251
 France, 5, 38, 57, 65, 175, 177, 178,
 181, 203
 Free-market, 35, 50, 75, 144, 148, 185
 Fuel, 41, 51, 76, 80, 107, 111, 118,
 125, 175, 196–198, 200, 210,
 216, 248, 251
 Fukushima, 66, 168
See also Nuclear energy
 Functionalists, 5, 6, 160, 175, 176
 Future energy system, 93, 243

G

Gas, 2, 28, 49–69, 74, 107, 139, 166,
 195, 215, 242
 Gas export, 36, 38, 50, 57, 59, 60,
 63, 64, 76–78, 154, 159, 218
 Gasfield, 124
 Gas Interconnector Poland Lithuania
 (GIPL), 216, 225, 230
 Gas market, 16, 17, 28, 36, 38, 40,
 51–53, 56, 58, 59, 62–64, 66,
 115, 116, 118, 140, 146, 147,
 153, 172, 173, 176, 183, 184,
 201, 202, 205, 206, 218–220,
 222–224, 226, 242

Gassco, 59, 153
 Gassforhandlingsutvalget, 143
 Gassled, 153
 Gas supplies, 35, 37, 41, 54, 55, 57,
 60, 62, 67, 90, 115, 116, 180,
 184, 200–202, 204, 205, 218,
 221, 223, 246, 251
 Gas-to-gas, 59, 60
 Gas transit, 35, 36, 38
 Gasunie, 57
 Gazprom, 33, 34, 36, 38, 40, 52, 54,
 61, 62, 67, 68, 73, 80n4, 111,
 113, 114, 117, 119, 126–129,
 149, 159, 173, 185, 201, 217,
 218, 222, 223, 242
 General Agreement on Tariffs and
 Trade (GATT), 61
 Geoeconomic, 175, 188
 Geology, 78, 93, 143, 200
 Geopolitics, 1, 10, 11, 28, 38–42, 54,
 56, 57, 60–62, 74, 123, 149,
 159, 206
 Germany, 2, 5, 11, 15, 16, 18, 36, 38,
 57, 58, 60, 66, 78, 83, 84, 89,
 125, 165–189, 196, 199, 201,
 206, 207, 211, 218, 220, 221,
 225, 228, 240, 243–245, 247
 Glencore, 108
 Global, 1, 6, 7, 10, 11, 13, 17, 18,
 29–31, 29n1, 33, 34, 41, 43, 50,
 51, 65, 66, 75, 83, 89, 105, 120,
 130, 141, 142, 151, 156, 166,
 169, 172, 175, 187–189, 205,
 219, 239–241, 248–251
 Globalization, 6, 170
 Goals, 1–3, 7–11, 15, 20, 28, 29, 34,
 38, 59, 60, 62, 119, 123, 139,
 140, 142, 149, 150, 153, 155,
 157, 159, 160, 168, 175, 177,
 178, 183, 188, 195, 198, 206,
 211, 216, 221, 245, 246

Governance, 11, 14, 16, 17,
 27–43, 50, 53–56, 60, 68,
 150, 178, 186–189, 206,
 209, 211, 239–241, 246,
 247, 252
 Great Britain, 43
See also United Kingdom (UK)
 Greenhouse gases (GHG), 75, 80, 86,
 88, 89, 168, 177, 177n5,
 178, 209
 Grid, 77, 80, 168, 169, 180–182,
 198, 227, 228, 248, 251
 Groningen, 167
 Gross Domestic Product (GDP),
 63, 199, 207
 Guinea, 65

H

Hammerfest, 90
 Harmonization, 6, 7, 9, 10, 149, 150,
 160, 207, 231
 Heterogeneity, 53–55, 68
 Hierarchy, 8, 189, 240
 Horizontal, 175, 177, 186, 189
 Hostile, 109
 Households, 41, 90, 172, 173,
 184, 198, 223
 Hovden, E., 92
 Høvsgaard, J., 126, 251
See also NordStream1; NordStream2
 Hub, gas, 183, 205
 Hungary, 28, 42, 54, 111, 126, 129,
 205n2, 227
 Hydro, 52, 59, 60
 Hydrocarbons, 78, 167
 Hydroelectric, 154
 Hydrogen, 81, 88, 243
 Hydropower, 12, 17, 77, 78, 78n3,
 84, 86, 88–90, 92, 131, 142,
 151, 154, 155, 243, 248

I

- Iceland, 145–147
- Ideas, 7, 12, 13, 20, 28, 30, 34, 35, 39, 40, 115, 147, 169, 175, 185, 202–204, 210, 211, 222, 224, 240, 243, 246, 247
- Identity, 5–7, 31, 41, 93, 146, 173
- Ideology, 6, 140, 156
- IEA, *see* International Energy Agency
- Ignalina, 8, 217, 218, 227, 229
- Impact, 3, 9, 11–13, 16, 18, 19, 31, 55, 80n4, 81, 82, 105, 105n1, 106, 107n3, 121, 151–154, 167, 180, 184, 187, 187n7, 195, 202, 205, 207, 208, 219, 223, 240, 243, 246, 247, 250, 251
- Implementation, 8, 18, 54, 55, 89, 106, 107, 111, 114, 125, 145, 149, 150, 154, 157, 160, 178, 202, 206, 208, 216, 240
- Import, 1, 2, 11, 14, 17, 35, 37, 39, 50–52, 56, 57, 61, 65, 66, 74, 75, 85, 106, 107, 167, 168, 180, 183, 185, 195, 197, 200, 201, 206, 217–219, 222, 225, 228, 251
- Import dependence, 11, 53, 55, 167, 170, 171, 185, 197, 241, 242, 249–251
- In Amenas, 63, 64
- Incentives, 68, 84–86, 114, 119, 152, 173, 182, 200, 210
- Incidents, 43
- Independence, 5, 56, 216, 223, 224, 227
See also Liquefied natural gas (LNG); Lithuania
- Indonesia, 108, 112
- Industry, 38, 39, 41, 63, 64, 79, 83, 85, 90, 92, 93, 139, 141, 142, 144, 151–153, 155, 156, 159, 160, 166, 173, 174, 178, 179, 198, 199, 250
- Infrastructure, 30, 38, 50, 51, 53, 54, 57, 60, 61, 65–67, 84, 93, 116, 118, 119, 123, 125, 130, 131, 152, 158, 171, 176, 186, 198, 201, 202, 205, 206, 217–221, 225, 230, 231, 243, 246
See also Critical infrastructure
- Infrastructure, interconnectors, 30, 50, 84, 119, 125, 175, 176, 201, 247
- Institutionalists, 6
- Institutions, 5–10, 13, 29n1, 42, 43, 49, 90, 93, 107, 110, 111, 114, 126, 140, 144, 149, 154, 157, 166, 170, 176, 198, 203, 204, 206, 220, 230, 239, 243
- Instruments in energy policy, 18, 118, 119, 121, 129, 208
- Integrated/Unified Power Systems (IPS/UPS), 226, 227
- Integration, market, 6, 8, 30, 125, 156, 179, 181, 183, 231
- Integration *vs.* autonomy, 12
- Interconnection, 107, 175, 180, 182, 202, 215, 218, 229, 230
- Interconnector
 electricity, 84–86, 88, 91, 226
 gas, 216, 222, 225
- Interdependence, 5, 8, 106, 185, 186, 227
- Intergovernmentalism, 53
- Intermittency, renewable energy, 84, 248
- International Energy Agency (IEA), 66, 187, 195, 199
- International oil companies (IOCs), 58, 64, 141, 156
- International Partnership for Energy Efficiency Cooperation (IPEEC), 188
- International Renewable Energy Agency (IRENA), 188

Intervention, 39, 53, 141, 145, 155,
156, 179, 216, 219, 220, 249
IOCs, *see* International oil companies
Iran, 39, 40, 79, 86
Iraq, 108, 112
Ireland, 87
Italy, 57, 63, 65, 80, 177, 178

J

Japan, 66, 184
Juncker, Jean-Claude, 203, 211
Jurisdiction, 147

K

Kazakhstan, 74, 77, 92
KazMunayGas, 108
Knowledge, 6, 8, 10, 170, 245
Krk, LNG, 66
Kyoto Protocol, 89

L

Laggard, policy implementation,
207, 210
Latvia, 19, 56, 215, 217, 218,
220–226, 228, 229
Law-maker, 155
Law-taker, 155
Liberalization, 5, 30, 32, 53–55, 58,
59, 64, 142, 147, 148, 202, 224
Libya, 2, 52, 76
Licenses, 58, 143, 153, 154, 156
Licensing, 93, 184
Liquefaction, 76
Liquefied natural gas (LNG), 2, 8, 17,
19, 49–69, 76, 78, 79, 81, 90,
116, 118, 125, 200, 201,
203–205, 210, 215, 219–226,
230, 231, 242, 247
Lisbon Treaty, 107, 176

Lisbon Treaty, Article 194 on energy
policy, 54, 107
Litgrid, *see* Lithuanian Electricity
Transmission System Operator
Lithuania, 8, 19, 56, 57, 116, 125,
158, 215–230, 248
Lithuanian Electricity Transmission
System Operator (Litgrid),
227–229
Lithuania Poland Grid Interconnector
(LITPol), 216, 220, 227–230
LNG, *see* Liquefied natural gas
Lobby/lobbying, 63n11, 82, 90, 111,
120, 126, 127, 129–131, 158,
172, 244
Lofoten, 82
Lukoil, 111, 113

M

Malaysia, 65
Manoeuvring, 140, 157, 160, 203
Market, access to, 140, 152
Market-based, 30, 54, 170, 171,
187, 188
Marketing, 36, 59, 81, 109
Market liberalization, 30, 55, 146, 231
Market, making, 4, 51
Marubeni, 108
Marvik, Anders, 117, 118, 121
See also Statoil
Mediterranean, 66, 187
Member state, 2–5, 8–11, 13, 14, 16,
17, 20, 30, 31, 42, 53–56, 58,
60, 62, 63, 66, 67, 78, 107, 116,
120, 124–126, 129–131, 140,
145–151, 153, 157, 158, 171,
172, 174–181, 176n4, 183–189,
197, 202–204, 206–209, 211,
220, 221, 224, 228, 239–241,
243, 244, 246, 247, 250–252
Mercantilism, 35, 43

Microeconomic, 7, 140
 Migration, 3, 187
 Modernization, 86, 198, 210, 225
 Mongstad, 90, 124
 Monopoly, 7, 39, 50, 52, 58, 61, 63, 67, 143, 147, 170, 219
 Morocco, 77
 Moscow, 33, 39, 42, 126, 227
 Mozambique, 108, 112

N
 Nabucco, 35, 62
 NAFTA, 222
 Naftogas, 62
 Nationalization, 141, 144
 National oil companies (NOC), 79
 Neoclassical, 7
 Neo-functionalists, 5, 6
 Neo-liberal, 6
 Netherlands, 57, 83, 84, 167, 207
 Nigeria, 52, 65, 67, 74, 76, 77, 79, 89, 92, 93
 Non-compliance, 159
 Non-discrimination, 34
 Non-discriminatory, 152, 155, 157
 Non-governmental organizations (NGOs), 111, 114, 173
 Nordlink, 125
 NordPool, 78, 84
 NordStream1, 40, 119, 127, 183, 184
 NordStream2, 18, 36–38, 40, 58, 115, 116, 119, 127, 129, 130, 148, 166, 182–186, 189, 245, 251
 Norges Vassdrags- og Energidirektoratet (NVE), 124
 Normative power, 28–32, 34, 42, 241
 Norms, 6, 13, 28, 34, 118, 120, 131, 140, 148, 160, 208
 North Atlantic Treaty Organization (NATO), 39, 202, 243
 Norway, 2, 13, 14, 17, 32, 49–69, 74, 106, 120, 139–160, 167, 240, 244

as a quasi-insider, 120
 (*see also* European Economic Area (EEA))
 as a quasi-member, 14
 (*see also* European Economic Area (EEA))
 Norwegian continental shelf (NCS), 83, 90, 144, 153, 202
 Nuclear, 16, 18, 40, 66, 165, 168, 171, 180, 181, 249, 251
 Nuclear energy, 16, 111, 167, 174, 180, 196, 198, 209, 249

O

Objectives in energy policy, 109, 119
 Oettinger, Günther, 128
 Oil, 2, 4, 10, 19, 28, 30, 31, 49, 51, 58, 61, 63–68, 74–77, 79–82, 86, 88–91, 93, 107, 111, 114, 117, 122, 123, 131, 141–146, 151, 154, 167, 170, 173, 175, 179, 195–198, 202, 210, 248–251
 Oman, 65
 OMV, 38

P

Pakistan, 80
 Paradigm, 13, 30, 31, 156, 166–175, 179, 182, 183, 185, 188, 189
 Paris Agreement, 77, 142, 178
 Path dependence, 7, 90–91, 189
 Peru, 65, 108, 112
 Petoro, 153, 154
 Petroleum policy, 142, 154, 155
 PGNiG, *see* Polskie Górnictwo Naftowe i Gazownictwo
 Pipelines, 18, 29, 35–37, 40, 51, 56, 57, 59, 62, 63, 66, 73, 76–78, 81, 90, 119, 129, 143, 148, 152, 182–184, 186, 201, 202, 206, 216, 218, 220, 225, 226, 230

OPAL, 36, 62, 129, 206
See also NordStream1; NordStream2
 Poland, 2, 8, 15, 18, 19, 28, 39, 42, 50,
 55, 56, 58, 80, 89, 116, 125, 158,
 180, 181, 185, 195–211, 216,
 221, 222, 225–230, 240, 243, 246
 Poland, energy policy, 211, 245, 247
 Policy, 1, 28, 50, 73–94, 165, 195,
 216, 239
 Policy, assertiveness, 43
 Policy, convergence, 7, 149, 150, 175
 Policy instruments, 18, 60, 63, 118,
 119, 121, 129, 141, 143, 208,
 241, 244
 Policy-makers, 12, 123, 130, 210, 217
 Policy-making, 5, 13, 15, 17, 69, 106,
 110, 113, 119–121, 130, 140,
 141, 156–158, 160, 207, 247
 Policy-taker, 59, 217
 Politicization, 38, 141
 Polskie Górnictwo Naftowe i
 Gazownictwo (PGNiG), 201, 205
 Portugal, 63
 Power
 economic, 1, 29, 34, 35, 38–40, 42,
 43, 240–242, 244, 247
 market, 14–16, 27–43, 50, 153,
 175, 203, 241, 247
 normative, 28–32, 34, 42, 241
 regulatory, 12, 13, 28, 29, 32–34,
 41–43, 107n3, 116n11, 241
 Power generation, 113, 118, 122,
 166–168, 170, 172, 173,
 180–182, 199, 250
 Preferences, 3, 5, 6, 31, 55, 110,
 158–160, 185, 217, 221,
 229, 240
 Preferential, 126, 142, 152, 156
 Price-takers, 66
 Pricing, 33, 52, 53, 64, 65, 67,
 86–87, 242
 Principle agent theory, 109
 Priorities, 3, 11, 14, 15, 18, 38, 41, 54,
 55, 60, 92, 105, 117, 120, 121,

123, 127, 141–145, 149, 160,
 169, 179, 182, 183, 201, 203,
 211, 219–222, 240, 244, 247
 Projects of Common Interest (PCI),
 176, 204, 220, 221
 Protectionist, 54, 155
 Provisions, 37, 129, 182, 208, 223
 Pumped-storage, 17, 86
 Putin, Vladimir, President of the
 Russian Federation, 61, 62

Q

Qatar, 51, 52, 65–67, 201
 Qatargas, 108
 Qatari, 66

R

Realist-liberalist, 158
 Regulation, 4–9, 13, 14, 16, 18, 29,
 30, 32, 34–38, 41, 50, 52, 59,
 62, 67, 68, 68n12, 89, 113,
 140–142, 144, 145, 147–150,
 154–160, 170, 173, 180, 184,
 202, 204, 205, 207, 208,
 219–221, 241, 242, 247, 249
 Regulatory-power, 33
 Regulatory-state, 43
 REN21, 188
 Renewable energy (RE), 16, 74,
 77–79, 81, 82, 84–86, 88–90, 93,
 94, 105, 125, 141, 142,
 165–169, 171, 173, 177, 187,
 188, 204, 249, 250
 Representation, 28, 30, 33, 74, 79,
 93, 110–118, 154, 173, 217, 249
 Reputation, 10, 82, 245
 Resources, 7–10, 12, 13, 17, 19, 53,
 54, 78, 81, 83, 88–91, 107, 110,
 111, 115, 117, 120, 122, 127,
 130, 131, 141–143, 152–156,
 159, 160, 167, 195, 197–200,
 210, 240, 243, 245, 246, 249, 250

- Responsibility, 54, 55, 88, 92, 107, 117, 123, 127, 153, 170, 171, 175, 185, 197, 198, 211, 239
- Restrictions, 154, 155, 209
- Rosneft, 108
- Ruhrgas, 57, 172
- Rule-based, 16, 28, 69, 140, 145, 189
- Rule-maker, 14, 74, 120, 157, 166
- Rules, 4–10, 13, 14, 28, 29n1, 30–34, 37, 38, 42, 50, 52–54, 56, 59, 60, 62, 67, 73, 77, 107, 110, 117–120, 123, 140, 141, 143n1, 145–151, 154, 157–160, 166, 189, 196, 204–206, 208, 211, 221, 242, 245, 247, 251
- Rule-setting, 13
- Rule-taker, 14, 74, 120, 157, 166
- Russia, 2, 3, 10, 14, 16, 17, 19, 28, 31, 33–43, 49–69, 73, 74, 76–78, 78n3, 80, 89, 92, 93, 106, 107, 111, 113, 115–120, 125–131, 141, 146, 149, 150, 158, 159, 167, 168, 172, 173, 179, 182–187, 195, 197, 201–203, 206, 210, 216–218, 222–224, 226, 227, 241–244, 246–248, 250, 251
- Russia–EU Energy Dialogue, 127
- Russia, indispensable energy power, 131
- RWE, 173
- S**
- Scarcity, 131
- Scenarios, 79, 178, 199, 223, 248, 249
- Sceptical, 6, 174, 207
- Scotland, 57, 82
- Securitization, 186
- Security, 3, 13, 19, 20, 37–41, 50, 54–57, 60, 64, 66, 73, 84, 93, 106, 107, 123, 131, 140, 147, 149, 150, 165–189, 195, 197, 200–206, 211, 215, 218, 219, 221, 224, 225, 231, 242, 243, 251
- Security of supply, 1, 7, 17–19, 28, 35, 36, 38, 39, 41, 55, 60, 62, 63, 66, 122, 125, 141, 151, 160, 165, 166, 170, 171, 174, 176, 180, 183, 186, 198, 202, 204, 205, 211, 215, 219, 223–225, 241, 242
- Šefcovic, Maros, Vice President of the European Commission, 40, 123, 126, 128, 211
- Shale gas and oil revolution, 55, 66, 202, 205, 252
- Shareholders, 170, 185
- Siberia, 76, 78n3
- Sletnes, Oda, Head of Norway's Delegation to the EU, 54
- Slovakia, 183, 205n2, 227
- Slovenia, 205n2
- Social Democratic Party (SPD), 168, 171, 177
- Solar, 77, 174, 251
- Solar power, 78, 84, 93, 180, 181, 227
- Sonangol, 108
- Sonatrach, 52, 63, 64
- Southern Gas Corridor (SGC), 35
- Sovereignty, 7, 142, 145, 157
- Soyuzgazexport, 50, 60, 61
- Spain, 63, 178, 207
- Spot market, 63–66, 201
- Stakeholder, 105, 120, 124–126, 165, 226, 248
- State-owned, 32, 39, 56, 59, 61, 63, 68, 83, 127, 142, 153, 155, 218, 219, 222, 224
- Statkraft, 83, 115, 125
- Statnett, 115, 124, 125

Statoil, 52, 56, 59, 60, 64, 79–83,
115, 117, 118, 121, 125,
142–144, 153, 154, 156
Suppliers, 2–4, 11–13, 15–18, 20, 28,
36, 40, 41, 43, 49–69, 73–94,
106–108, 107n3, 110–116, 118,
120, 123–125, 129–131, 141,
146, 150, 155, 159, 167, 172,
176n4, 197, 201–205, 210, 218,
224, 239–244, 246–248, 251, 252
Surgutneftegas, 108
Sweden, 78, 83, 84, 146, 178, 186,
216, 221, 228, 230
Switzerland, 146, 147, 157

T

TAP, 41
Technological innovation, 179, 249
See also Shale gas and oil revolution
TEN-E, *see* Trans-European
Networks–Energy
Terminal, LNG, 19, 57, 66, 201, 203,
216, 220–226, 230, 231
Terrorist attack on gas facility in
Algeria, 63, 64
Texaco, 50, 141
Third-party access (TPA), 36, 37, 59,
147, 152
Threat, 34, 38, 39, 56, 126, 241,
243, 246
Tigantourine, 77
See also In Amenas; Terrorist attack
on gas facility in Algeria
Tobago, 65, 108, 112
TPA, *see* Third party access
Trans-European Networks–Energy
(TEN-E), 219, 220
Transparency Register, 110–112, 114,
116, 117
Trump, Donald, President of the USA,
4, 39, 55, 205
Tunisia, 63, 77
Turkey, 35

Turkmenistan, 119
Tusk, Donald, Prime Minister of
Poland, President of the EU,
40, 179, 203

U

UAE, 65
Ukraine, 3, 28, 33, 35–38, 40, 57, 58,
62, 67, 106, 123, 126, 128–130,
141, 168, 179, 183, 185, 187,
202, 205, 206, 248
United Kingdom (UK), 2, 10, 11, 14,
28, 42, 53, 57, 58, 63, 65–69,
68n12, 78, 83, 125, 148, 153,
177, 178
See also Great Britain
United States of America (USA), 4,
10, 39, 42, 43, 50, 51, 55, 56,
66, 67, 74, 75, 77, 83, 92, 93,
107, 117, 144, 148, 166, 179,
184, 201–203, 205
Upstream, 37, 64, 148, 201
Uranium, 167

V

Vestas, Danish wind power
company, 83
Vulnerability, 19, 217

W

Wind power, 78, 79, 82–86, 88, 91,
169, 227
Wintershall, 38, 172

Y

Yamal, 183

Z

Zeebrugge, 123