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Dynamics of Energy Governance in Europe and Russia

Edited by
Caroline Kuzemko, Andrei Belyi,
Andreas Goldthau and Michael F. Keating

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Dynamics of Energy Governance in Europe and Russia

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Softcover reprint of the hardcover 1st edition 2012 978-0-230-30790-2

First published 2012 by
PALGRAVE MACMILLAN

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Palgrave Macmillan in the US is a division of St Martin's Press LLC, 175 Fifth Avenue, New York, NY 10010.

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ISBN 978-1-349-33882-5 ISBN 978-0-230-37094-4 (eBook)
DOI 10.1057/9780230370944

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A catalogue record for this book is available from the British Library.

A catalog record for this book is available from the Library of Congress.

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Foreword by Matthew Watson

It is now over 40 years since Susan Strange made her impassioned plea for an International Political Economy (IPE) which could transcend the theoretical limitations of orthodox scholarship in International Relations and International Economics. It is also nearly 30 years since she identified in energy almost all of the characteristics she associated with structural power. However, the international political economists who have followed in her footsteps have been slow on the uptake when putting these two observations together. At the very least, this is the insight which acts as the important point of departure for this volume.

The editors show that existing academic discussions of the dynamics of energy governance in Europe and Russia – with only a few exceptions – have consistently conceptualized energy either as a commodity to be traded openly on world markets or as a resource to be projected politically for foreign policy power. In this way, they inadvertently reproduce the intellectual divide between International Economics and International Relations which Strange had suggested was old hat as far back as 1970. As the world economy has moved on qualitatively in giant steps since that time, so too has the significance of governing energy supply and energy demand, rendering orthodox perspectives even more anachronistic. This book is therefore a most welcome alternative in its conscious rejection of that style of thinking. It deserves to be widely read as a consequence as well as to find a place as a standard work of reference for future debates about energy governance.

In this respect, the editors – Caroline Kuzemko, Andrei Belyi, Andreas Goldthau and Michael Keating – deserve a vote of thanks from the IPE community. It is never easy to do anything genuinely novel, because trailblazing is so much harder as an academic pursuit than adopting a follow-my-leader approach. Yet the editors have succeeded here in lining up their individual chapter authors behind a brand new agenda which lays down important markers for the future. All the authors have made a significant contribution to the collective endeavour of rethinking the premises of energy governance from a perspective which accepts that it is both an economic and a political process but *a priori* privileges neither in explanation. The result is a volume of considerable nuance, where

what comes shining through is the complex multiplicity of both governance strategies and understandings of governance strategies by the actors involved. There is no room here for monocausal explanations drawn from orthodox theoretical perspectives which are nothing if not now distinctly passé. The structures of energy governance in Europe and Russia – as well as elsewhere – are simply too diverse and cross-cut with too many other interests to render them so easily apprehensible.

So, will IPE scholars take note and now leave behind once and for all the old-fashioned International Economics and International Relations approaches? It is always difficult, of course, to talk to someone who does not want to listen, but it nonetheless is to be hoped that the answer is 'yes'. At the very least, there is much to be found in this excellent and engaging volume for IPE scholars to move the debate decisively forwards in future years.

Matthew Watson, University of Warwick, July 2011

Foreword by Nodari Simonia

The history of Europe–Russia energy trade relations goes back several decades. However, it is only over the last decade that we have seen an ever-increasing politicization of the issue. The political economy of energy has gained a strategic dimension within current relations between the countries of the Eurasian region over the course of the last decade.

The political economy of energy is marked now by a number of uncertainties, which need to be analysed in detail. As an example, it is worth, at this point, to remember the level of 'expert' scepticism about possible hydrocarbon resources in Russia which existed in the 1950s prior to West Siberian oil and gas development. A bit later, in the 1960s, American administrations motivated by geopolitical considerations attempted to convince Germany not to support building pipelines from the USSR. Both proved over time to be incorrect. Is it accurate now, therefore, to speak about the decreasing weight of Russian energy supplies to Europe going forward? I would argue, not. There are huge reserves in new greenfields in Eastern Siberia, the Far East and Arctic seas. The unexplored hydrocarbon potential might arguably further tighten East–West energy interdependence.

Although the resource base of Russia still has important potential, the problem now is related to the unpredictability of demand from liberalized, European markets, artificially created bureaucratic obstacles and new waves of aggressive geopolitics. Investments into capital-intensive upstream projects are becoming more problematic. The new era of competition in Europe may rather reinforce a trend of rising risk premiums for long-term investment commitments, which furthermore may lead to upward pressure on energy prices. The growing risk aversion of energy companies might lead to new mergers, which in turn may wipe out the expected market fragmentation in Europe.

Moreover, the European Union has emphasized a new political ambition of developing towards a non-hydrocarbon economy, which is reflected in its '20-20-20' objectives. The EU's commitment to these ambitious new targets, aimed at changing the traditional landscape of long-term oil and gas usage, may negatively impact on oil and gas

investment and development, which is arguably still much needed in Europe.

New environmental concerns, furthermore, represent an important factor impacting on the international political economy of energy. It is important to note that issues such as global climate change mitigation and the promotion of sustainable energy sources and of energy efficiency are gaining a more fixed political dimension in many energy-importing States in addition to the EU. By contrast, environmental protection remains under-evaluated in the Russian energy-exporting sector, which considers its large reserves a reason for not taking further steps towards any abatement of the negative impact of energy losses in Russia itself.

Gas transit disruptions between Russia and the Ukraine in 2006 and 2009 have accelerated European concerns regarding the way in which politics and business are linked in the former Soviet Union. Consequently, academics should increasingly be considering ways in which the vicious circle of energy supply securitization can be stopped as well as finding more concrete ways of establishing energy as an important economic tool for interdependence.

Transit gas disruptions, in addition to the spiralling politicization of energy trade, demonstrate a need for predictable energy governance. But the existing frameworks of the Energy Charter Treaty, the World Trade Organization and bilateral EU–Russia agreements are still locked in processes of constant revision and of ongoing negotiations. Maybe, both Russia and Europe have a chance now to elaborate a strong ground for international energy governance. Indeed, without an agreed framework based on international law it remains difficult to expect much predictability in cross-border Europe–Russia energy relations going forward.

This book outlines an ambition to highlight such major issues of the political economy of energy in Europe and Russia. The authors, from Europe and Russia, academia and business, experts and young researchers, cover various subjects of both mid- and long-term relevance. The book uses an innovative approach, international political economy, which tends to take into account various angles of the complex interdependency in this area and which still has a large potential to be applied.

Nodari Simonia, Institute of World Economy and International Affairs, MGIMO University, Moscow, July 2011

Acknowledgements

The editors would like to thank the UK Economic and Social Research Council (ESRC) for generously funding the Political Economy of Energy in Europe and Russia (PEEER) network and in particular for supporting its conference workshops over the course of 2009–11, which were instrumental in facilitating the research that led to this book.

We would also like to thank David Armstrong, Mike Bradshaw, Amelia Hadfield, Richard Higgot, Cho Khong, Valery Kryukov, Sergei Seliverstov, Tim Shaw and Nodari Simonia for providing crucial input to PEEER meetings and throughout the entire process. We are also indebted to the Higher School of Economics (HSE), to the Centre for the Study of Globalisation and Regionalisation (CSGR) and to University College Oxford for hosting individual PEEER workshops.

Finally, this book project has strongly benefited from an interdisciplinary group of academics from across Europe and Russia, who were at the heart of the PEEER endeavour. We are deeply indebted to them for their participation, feedback and ideas.

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Introduction: Bringing Energy into International Political Economy

Michael F. Keating, Caroline Kuzemko, Andrei V. Belyi, and Andreas Goldthau

Dynamics of Energy Governance in Europe and Russia provides substantial explanations and analyses of transitions, change and uncertainty in energy issues in the broad region of Europe and Russia. The book focuses on questions of energy governance and approaches this topic from an international political economy (IPE) perspective. As such, this represents an attempt to bring energy back into the mainstream of IPE.

This topic has a great deal of contemporary traction, given the tense politics of energy in this region, yet energy remains peripheral to academic inquiry in IPE. Only a small number of high-profile academics working within, and in some instances to establish, IPE have in the past extended their research to questions of energy and its governance (Bromley 1991; Keohane 1984; Strange 1988). Both Susan Strange, in her book on structural power, and Simon Bromley, in his book on American hegemony and world oil, stress the need to move beyond the artificial separation of questions of political economy from those of geopolitics (Bromley 1991: Preface; Strange 1988: 195). Energy is understood as essential to modern life, potentially politically and economically influential, and complex and under-researched. Not much, however, has been done to answer the call for more theoretically informed analysis of energy which specifically considers both political and economic questions.

There is a tradition of IPE research into certain policy sub-fields. A brief look at contemporary IPE textbooks, for instance, reveals that *environment* is considered a key topic. However, *energy,* a central component of the politics of environmentalism and climate change, is not. Earlier IPE textbooks explicitly dealt with energy issues, but in the limited context of oil crises, oil cartels, and associated questions of conflict and power (Gill and Law 1988; Spero and Hart 1997; Stubbs and

Underhill 1994; see also Oatley 2006: 176–77). Contemporary research also tends to ignore the intertwined nature of policy fields and exhibits a strong tendency to think within disciplinary boundaries. Discussion of environmental issues or economic development therefore remain somewhat disconnected from more practical, policy-oriented, and in fact crucial questions of energy (see Balaam and Veseth 2008; Baylis et al. 2011; Bernstein 2001; Carter 2007; Cherp et al. 2011; Connelly and Smith 1999; Giddens 2009; Newell and Patterson 2010; Oatley 2006; O'Brien and Williams 2010; O'Hara 2004; Ravenhill 2011; Roberts 2004; Stilwell 2006; Stubbs and Underhill 2006). This book is an attempt to remedy this oversight, and to precisely engage with theoretically informed analysis of broad energy matters, albeit with – as the title suggests – a regional and governance focus.

Contemporary analysis on energy and energy governance rarely departs from traditional realist/geopolitical or liberal/neo-liberal approaches (CEPMLP 2006; Correlje and van der Linde 2006; Finon and Locatelli 2008; Goldthau and Witte 2010; Lesage et al. 2010; Luft and Korin 2009). Indeed, a recent review of European energy governance literature suggested that the 'markets versus geopolitics' debate was still 'state of the art' (Youngs 2009). Scholarly debates in this field tend to focus on access to resources, while ignoring the economic aspects of energy security, such as security of demand. They centre on states as units of analysis, while ignoring the ever-growing role of transnational actors, such as national energy companies, as well as global externalities and spill-overs. They furthermore tend to marginalise the role of international cooperation in energy and developments in international law and treaties, even though these remain important bases of interstate economic interdependency.

This is clearly evident in the geopolitical debates. These have focused on security policy challenges for the United States as a global hegemon (Deutch et al. 2006; Kalicki and Goldwyn 2006); on 'China in Africa', suggesting that the world is locked in a battle over resources (Bannon and Collier 2003; Cheru and Obi 2010; Lieberthal and Herberg 2006; Taylor 2006; Zweig and Jianhai 2005); on Russia's alleged 'energy weapon', presuming that energy is a means of state power and foreign policy (Klare 2008; Orban 2008; Smith 2006; Stulberg 2008); or on new 'Great Games' in existing or emerging energy producer regions in the Gulf, Caspian or Arctic regions, anchoring analyses in classic realist assumptions (Baghat 2003; Barnes and Jaffe 2006; Borgerson 2008; Klare 2008). Environmental concerns have tended to be integrated into this security framework as a subsidiary factor (Shaffer 2009).

Neoliberal approaches, in turn, have tended to make pro-market assumptions about how energy *should* be governed without necessarily making this normative stance explicit, as well as implying that market-oriented governance structures are a *fait accompli* (Egenhofer and Legge 2001; Maugeri 2006). Alternative methods of governance are ignored, or critiqued as being simply wrong, or 'old world' (Erixon 2009; Hayes and Victor 2006; Mitchell et al. 2001). The possibility that energy sector liberalisation might disrupt security of supply is completely ignored. Furthermore, given the limited neo-liberal appreciation of the possibilities for market failure, these approaches tend to assume that environmental problems can be completely resolved through market mechanism (Stilwell 2006). 'Energy security' is instead equated with 'free markets', positive economic interdependence is assumed, and 'political interference' and 'statism' are criticised but not explained (Correlje and van der Linde 2006; Goldthau and Witte 2009; Yergin 2007). Neoliberal approaches therefore tend to negate the possibilities for political change in energy relations.

Political factors that impact on interstate economic relations and on domestic and international energy policy choices are clearly insufficiently recognised by neoliberal analyses. The geo-political approach, meanwhile, frames energy issues in terms of zero-sum games between state actors, and sidelines other possible scenarios. In sum, the geopolitical and neoliberal approaches that characterise the energy governance literature tend to be based on simplistic distinctions between politics and economics, viewing them as discrete analytical areas. They fail to adequately explore the potential inter-relationships that are in fact crucial for understanding the dynamics of energy governance.

1. International political economy

While the contemporary international political economy (IPE) literature appears to be focused on the 'transatlantic divide' within the discipline (Blyth 2009; Cohen 2008; Phillips and Weaver 2011), this collection seeks to apply an IPE approach to a rich empirical area, that of energy governance dynamics in Europe and Russia, in which IPE scholarship has been conspicuously absent. As such, this book is a departure from the reductionist geopolitical and neoliberal lenses assessed above, but is not intended as an attempt to theorise IPE, or to transcend or critique particular approaches within IPE. Here it is necessary to clarify this IPE approach, in order to 'bring energy to IPE' in a coherent fashion. In sum,

the research and analysis carried out in individual chapters reflects some or all of these four essential points:

1. An interdisciplinary approach is fundamental to IPE.
2. IPE is characterised by engagement with a multiplicity of actors and institutions.
3. IPE systematically identifies interlinked and interdependent global, regional and domestic influences on policy processes.
4. IPE addresses a range of analytical and normative concerns in an open and political manner.

First, it is important to elucidate upon the inherent interdependencies of political and economic factors, and to trespass across increasingly redundant disciplinary boundaries (Balaam and Veseth 2008: 1; Phillips 2005: 10; Watson 2005: 14–19). In the case of energy, the logic of energy markets is deeply interrelated with 'politics', whether in the form of formal, international law or organisations, or informal norms such as concern over climate change or best practices, institutions, or the activities of state or other non-market actors. The chapters collected here have emerged from a continuing interdisciplinary dialogue orchestrated through the *Political Economy of Energy in European and Russia* (PEEER) network. Through a series of PEEER workshops in Moscow, Oxford and Warwick, political scientists, economists, scholars of international relations, international business and law, sociologists, and geographers have been able to contribute to and reflect upon interdisciplinary understandings of energy issues, and this has greatly informed the book. The need for a more encompassing approach towards energy governance is strongly underlined by the fact that the UK Economic and Social Research Council (ESRC) generously funded the interdisciplinary PEEER network.

Second, an IPE approach to the dynamics of energy governance in Europe and Russia addresses a broad range of actors (Balaam and Veseth 2008: 4). Attention to international law, corporations and business lobbies, civil society actors, treaties, international organisations and departments of state, as well as norms, values, guiding principles, policy narratives and ideological frameworks is required. The book therefore engages with 'states and markets', whilst avoiding a narrow focus on either, and going beyond this limited conception of IPE subject matter (Watson 2005: 20–21). The work collected here does not view states as the only, or even the dominant, actor in energy governance, nor does it view the state as necessarily centralised. Sub-state, inter-state,

and supra-state actors, as well as non-state actors both market and non-market, are included as part of this analysis of energy governance dynamics.

Third, in rejecting the methodological distinction between 'domestic' and 'international' levels (Phillips 2005: 16–17), the IPE approach adopted in this book addresses this multiplicity of actors within a transnational understanding of energy governance issues. Traditional 'levels of analysis' approaches are transcended, and the book taken as a whole also goes beyond a comparative political economy approach by viewing states themselves as internationalised. As such they are understood to be systematically interlinked with other state and non-state actors. This ensures that a genuine transnational understanding of energy governance issues emerges, able to allow for the complex linkages between diverse actors.

Fourth, a range of analytical and normative questions concerning energy governance are asked, pertaining to effectiveness, power, risk, vested interests, employment, and specific political economic issues faced by developing and transitional countries (DTCs). These are addressed in an open, political manner. As a consequence, the collected chapters in this book also reflect a shared concern with avoiding what Nicola Phillips (2005: 18) has identified as the twin perils of excessive economism and excessive structuralism, which have plagued IPE and other research disciplines in the past. The core themes which emerge from this book pertain to steering capacity, the impact of gas industry transitions, the energy-environment nexus, and neoliberalism. These are set out in detail below. Prior to this, however, it is necessary to explore the concept of governance – the main thematic focus of the book – in more detail.

2. Governance

The four IPE principles explored above help to constitute the understanding of governance utilised in this book. The book directly addresses the complexities of energy governance and the dynamic pressures which even now are driving changes in this sector. 'Governance', as a concept, enables the recognition that not all *governing* is done by *government* (Avant et al. 2010: 1–2; Pierre and Peters 2000: 1). Governance is therefore a broader concept than government, but one which includes various forms of governing (Bell and Hindmoor 2009: 16–19; Gamble 2000: 111; Jordana and Levi-Faur 2005: 23; Leftwich 2000: 118). The IPE approach outlined above, in recognising a range of actors, dovetails

nicely with this understanding of governance. A range of non-state actors must therefore be recognised in the provision of governance, including market institutions and actors, such as transnational corporations, national energy companies, and other business lobbies (Aksu and Camilleri 2002; Sinclair 2005).

This recognition of the breadth of governance actors should not be equated with a 'retreat of the state', nor lead to an overstating of the role of (un)civil society in governance (Ohmae 1995; Strange 1996). Nor should it lead us to underestimate continued state-steering capacity, and state meta-governance functions (Bell and Hindmoor 2009; Gamble 2000: 111–12; Karns and Mingst 2004; Palan et al. 1996). Here, the transformationalist branch of the globalisation literature (Held and McGrew 2000) is useful, as it explicitly recognises that while states may be transforming or even fragmenting (see Cerny 1997; Jayasuriya 2001), this does not equate to the end of the nation state. Analysis is pushed towards understanding the *dynamics* of governance, as this book attempts with regard to energy.

Consequently, an IPE-based analysis of governance recognises the continued and crucial functions of the state, but also of various agencies of state (sub-state actors), and supra-state or inter-state bodies – without equating governance with international organisations (Armstong et al. 2004; Diehl 2005; Hurd 2011; Karns and Minst 2004). These governance providers serve to create other key mechanisms of governance, such as international law, treaties and further organisations. Such forms of governance are analysed with explicit consideration of the changing politico-economic priorities of state and market actors, and the conflicts that arise between them, as well as with regard to practical questions of policy implementation. Furthermore, energy governance dynamics need to take into account existing and emerging norms and narratives, which drive continuing processes of policy transfer. All, in turn, both affect and are affected by the changing material conditions and the technology base of the energy sector, raising questions for policy makers, corporate, and other actors that will not disappear in the foreseeable future.

Governance, therefore, is in part conceived of in structural terms, with changes in the design and activities of state, along with sub-state and inter-state, hierarchies, markets, networks, and communities constituting the dynamics of governance in any policy area (Bell and Hindmoor 2009: 16–19; Pierre and Peters 2000: 14–22). This book reveals the complex overlaps between different systems and providers of governance in the energy sector in Europe and Russia, and taken together, an overall

'mode of governance' is revealed. However, the aim of this book is not to provide a static, 'snapshot' of energy governance in the region. Rather, it is to address energy governance in a dynamic sense, clarifying processes of transformation, while unpacking the role of key actors, institutions, agencies and interests in this changing political economy (Avant et al. 2010: 1–17). The normative assumption that results from this brief overview of the governance literature is therefore that *governance happens*. Yet what matters, in effect, is not the question 'who is doing the governing?', but the explanation of how and why the answer to this question is changing.

Furthermore, governance must also be understood as a process, where the *outcomes* of interacting governance structures are the focus of analysis (Pierre and Peters 2000: 22–23). Here, governance is about the coordination and steering capacity of states and societies (Bell and Hindmoor 2009; Pierre 2000). The need for steering capacity becomes crucial precisely in response to the same transnational pressures that have internationalised and fragmented states (Jayasuriya 2001). Governance should therefore also be seen as having a *purposive*, or teleological, problem-solving dimension. This aspect of governance is now picked up in more detail, by engaging with the key thematic areas which emerge from the book, in which the authors go beyond identifying dynamic processes that affect existing modes of governance in any specific policy area, towards asking questions about governance in a substantive and purposive sense. This IPE approach to energy governance therefore has a forward looking and problem-solving dimension, which might contribute towards bridging the gap between energy researchers and policy community (Stone et al. 2001).

3. Key themes of the book

Within the context of the governance focus of the book, some themes emerge from the collected chapters that constitute the key dynamics of the IPE of energy in Europe and Russia, and these complement other analyses of energy governance. To begin with, a core underlying governance question that policy makers face is whether transnational policy mechanisms can in fact generate sufficient 'steering capacity' (Pierre and Peters 2000: 23) to address energy concerns, for example market or regulatory failures, security or environmental issues. In this regard, the book as a whole interrogates the role of, and transnational linkages between, multiple institutions and actors. An IPE critique of the limitations of transnational policy mechanisms, such as multilateral

arrangements on energy trade, is provided, while the prospects for steering capacity to be generated on a regional basis are taken seriously. Chapters by Romanova, Pirani, and Behn and Pogoretskyy suggest that transnational modes of energy governance based upon the development of common norms can be problematic both in their formation and application. Often, in practice as highlighted by Raszewski, this may amount to political contestation over norm-generation, as in the case of the EU and Russia regarding gas market liberalisation.

As is made clear in the chapters by Demakova and Godzimirski, Talus, Pirani, and Goldthau, perhaps more than any other sub-sector, the gas component of energy industry, with associated legal, contractual, market, and policy issues, is in severe flux, both in the region, and globally. The resulting uncertainties have massive governance implications for energy producers and consumers alike. In particular, gas transit conflicts reveal new dimensions to regional security issues, and require reflection upon the material realities of the gas industry (Shaffer 2009; Victor et al. 2006). Attempts to generate an international energy governance framework through the Energy Charter Treaty appear to have failed, with securitisation rather than multilateralism the result of these conflicts. Factors such as the rise of shale gas (Stevens 2010) and LNG (Victor et al. 2006), the impact of the recent economic crisis (global credit crunch), the changing balance between long-term contracts and spot markets, and the rise of futures market and associated speculation on pricing (Cho 2008; Davidson 2009; OFGEM 2011; Sornette et al. 2009) are also addressed here. As suggested by Behn and Pogoretskyy both the political and economic appropriateness of emerging legal institutions of governance in the gas industry need careful consideration. Assessing the interactions of these issues allows an appreciation of both the dynamics of the gas industry and the outlining of policy-relevant potential governance responses.

Furthermore, the role of climate change and environmental stress considerations in driving energy sector policy-making, emerges as clearly central to the dynamics of energy governance in the region. However, as noted above, the existing literature has clear limitations, and tends to underestimate the complexity, and perceptions of urgency, surrounding actions on climate change. There are important exceptions (Helm 2005; Mitchell 2008), but overall energy and environmental concerns need to be re-integrated in an IPE framework. The complex manner in which these issues interrelate require further analysis, which is transnational and interdisciplinary in character, and takes into account a multiplicity of actors. Chapters by Boute, Belyi and Petrichenko, and Kuzemko, do

this, and therefore contribute to closing this gap in the literature, without oversimplifying the material, or narrowing the scope of concern. By explicitly addressing environmental issues in the context of regional energy governance dynamics, the book will also clearly be useful to energy policy makers.

Finally, chapters by Behn and Pogoretskyy, Elmes, Keating and Kuzemko pertain to the current state of, and prospects for, the neoliberal policy agenda in the energy sector. Neoliberalism has been a driving theme of IPE scholarship, as well as a principle guide to energy policy-making, for over 30 years. A general literature exists regarding neoliberalism and institutional change (Blyth 2002; Campbell and Pedersen 2001; Cerny 2010; Harvey 2005; Hay 2001; McNamara 1998; Plehwe et al. 2006; Soederberg et al. 2005), and some scholars have, in a limited manner, addressed neoliberalism in the energy sector (Correlje and van der Linde 2006; Finon and Locatelli 2008; Lesage et al. 2010). In this regard, the book directly addresses the role of market norms as drivers of energy governance dynamics, and questions of convergence and divergence in energy governance, legal harmonisation, and energy sector best practices in the context of neoliberalism. By explicitly addressing problems that have emerged from the close association of energy policy-making with neoliberal ideas, as well as the problems posed to neoliberal approaches by emerging energy governance challenges, the book also contributes to wider IPE debates (Gamble 2009; Hay 2011; Watson 2009).

4. Europe and Russia: A regional focus

This book focuses on the regional setting of Europe and Russia. Most of the existing energy literature addressing this region is security oriented (Aalto 2007; Baghat 2006; Gault 2004; Orban 2008; Youngs 2009). By contrast, this book acknowledges and analyses a broader set of regional governance issues, including gas transit and trade, energy efficiency and climate change, and the governance role of international institutions.

As the empirical material found in this book is guided by the IPE framework set out above, it makes a focused contribution to filling a significant gap in a growing research field. Analyses go well beyond the narrow 'triad' (EU, NAFTA, E&SE Asia), which has been the focus of so much IPE scholarship, ensuring that the book is part of the growing response to calls to 'globalize' IPE (Phillips 2005: 17). Furthermore, the focus on energy governance dynamics at a *regional* level might be of

more practical significance than studies operating at the *global* level (see Lesage et al. 2010), where cooperation may be less likely to eventuate (Balaam and Veseth 2008: 113; Ravenhill 2011: 181). Indeed, energy in Europe and Russia has in recent years been at the centre of policy debates on energy trade and transit, access to investments and markets, security of supply and demand, and liberalisation versus national control of markets. Consequently, this IPE study of energy governance dynamics is well placed to inform policy-making in key issue areas. Through the identification of governance mechanisms 'that work', by singling out factors that prevent win-win solutions from emerging, and by providing analyses at the interface of structure and agency, the book will prove useful in generating new policy responses on crucial issues of energy governance.

5. The structure of the book

The book is organised in three sections, with four chapters per section. These sections reflect a useful typology of the approaches taken in the relevant chapters. The regional and governance focus of the book, and the four key themes discussed above, in turn cross-cut all sections. Part I, Transnational Dynamics, focuses on energy governance dynamics that are transnational in scope, such as rules, norms and practices that are to some extent outside of the regulatory control of individual nation-states. The prospects for transnational mechanisms to harmonise regional governance arrangements are addressed. Part II, Beyond Domestic Contexts, explicitly provides a transnational approach to energy governance dynamics that are normally seen as within the scope of state reach, and so usually subject to a limited, domestic analysis. The complex state-market interactions revealed in different policy contexts transcend national political economy, with the role of transnational actors and processes being recognised. Part III, Contemporary Transformations, directly addresses factors that are driving changes in regional energy governance arrangements, and the political economic implications of these governance transformations. Together, these three parts constitute a forward looking, IPE analysis of some of the most significant and fascinating governance dynamics, across a set of crucial energy policy issue areas, in the region of Europe and Russia.

Part I, Transnational Dynamics, begins with two studies of the attempt to harmonise regional governance arrangements through legal and treaty-based approaches. In Chapter 1, Tatiana Romanova critically examines legal approximation between the EU and Russia. Designed

by Brussels as a purely norm exporting process, she exposes this one-size-fits-all approach as poorly designed with regards to Russia, which seeks to cooperate only in selected policy areas, and does not aim at becoming an EU member state. Romanova argues that legal approximation processes that differentiate between strategic goals, policy goals, and implementation strategies will be better able to promote legal harmonisation. Through case studies of clean energy and market-making, it becomes clear that political economic interests generate unavoidable repercussions for legal constructs – of which legal approximation is a prime example.

In Chapter 2, Daniel Behn and Vitaliy Pogoretskyy provide a study of gas dual pricing policies that goes beyond narrow, legal approaches. They highlight the normative tension between pro-market approaches promoted by resource-dependent states, and policies involving state domination over natural resources that are advocated by resource-rich states. While they conclude that there is no clear legal conflict between the principles of free trade and the principle of resource sovereignty, the case of Russian gas dual pricing provides an apt illustration of the nexus between legal outcomes and questions of political economy. Pogoretski and Behn, furthermore, stress that the reconciliation of legal rules will not, in of itself, foster greater harmony and cooperation between Europe and Russia.

Part I then provides two policy-oriented studies of attempts at regional governance harmonisation. In Chapter 3, Anatole Boute assesses the potential for EU energy efficiency policies to foster the climate mitigation agenda, as well as to promote further external policy goals, including energy security. He argues that EU policies for promoting cooperation with regard to energy efficiency, because it is a less strategically sensitive sector than upstream equivalents, might increase mutual trust, and lead to concrete governance outcomes. However, in assessing the design of the existing set of EU policies, Boute concludes that they fail to grasp the complexities of political economic relations between the EU, a net energy importing entity, and its energy exporting and transit partners.

In Chapter 4, Michael Keating critically assesses the prospects for global best practices to serve as a mechanism for energy sector policy transfer to EU partner countries. Policy learning is a crucial element in dynamic processes, as are transnational policy frameworks (such as best practices) and the organisations which promote them. Nevertheless, like all processes of policy transfer, adaptation and hybrid outcomes are likely, potentially transforming the meaning of policies, institutions

and ideas which are transferred to new political economic contexts. Keating therefore argues that these best practices based policy transfer processes are unlikely to promote regional energy governance harmonisation, particularly with regard to developing and transitional countries (DTCs). In particular, the neoliberal underpinnings of energy sector global best practices may conflict with the developmental objectives that have historically characterised DTC energy sector policy-making.

Part II, Beyond Domestic Contexts, begins with a second study of best practice policy transfer, this time from the perspective of recipient states. In Chapter 5, Andrei Belyi and Ksenia Petrichenko examine the institutional impact upon economic behaviour of the rise of energy efficiency concerns. The particular focus is external influences on Russian domestic policy formation regarding energy governance. Here, the transnational characteristics of energy efficiency policy meet with the reality that implementation mechanisms remain at the national level, where domestic priorities may predominate. Energy efficiency policy is viewed as taking place under the influence of a complex set of political and economic interests, which, albeit related, go beyond the environmental concerns. In their conclusion, the authors identify continuing discrepancies between Russia and the European Union over energy efficiency policy priorities, which occur despite the evident similarity of policy implementation mechanisms.

Part II then provides three studies of energy market interdependency, and the transnationalising impact of transit issues in the context of historical, political economic legacies, and security concerns. In Chapter 6, Slawomir Razsewski outlines national energy security perceptions in Lithuania and Poland, and their policy impact in the context of transnational governance dynamics pertaining to energy and climate change. He traces the impact of historical structures, as well as newer energy relationships, upon perceptions of energy and energy governance in these Baltic countries. The securitisation of energy is held to result from a highly politicised energy sector, where policy makers are seeking to address perceived threats to their national energy security. Based on these case studies, Razsewski ekes out some of the complex inter-relationships between economics, politics and security that characterise energy governance in the region in practical, policy terms.

In Chapter 7, Ekaterina Demakova and Jakub Godzimirski highlight the complex principle-agent relations between the Russian state and Gazprom. The practicalities of decision-making in the gas sector are explored, and an analysis of the inter-relationship between political

and economic dimensions of policy-making is provided. They explicitly differentiate their approach from existing, simplistic and stereotyped portrayals of gas-related Russian foreign policy. This chapter, furthermore, provides an exploration of Russia's socioeconomic strengths and weaknesses in terms of its ability to play an important role in the global energy game.

In Chapter 8, Simon Pirani engages with the interlinked political and economic causes of the so-called 'transit wars' that have broken out in the region in the last decade. He finds that while transit conflicts between former communist states have generated new security concerns across the broader region, these conflicts stem from a number of political and economic factors inherent to the process of post-Communist transition – as evident in disputes between Russia and Ukraine. These factors serve to transnationalise what might otherwise be seen as questions of domestic political economy. In the complex process of transition from a command economy to a market economy, certain economic realities, and their political consequences, must be faced, and conflictual relations between state and market actors with regard to transit issues appears to be one of these consequences. Furthermore, Pirani explains the rejection of the Energy Charter Treaty by the actors involved in the disputes, with references to the aftermath of these 'transit wars'.

Part III, Contemporary Transformations, begins with the rise of new norms as a driver of energy governance transformations. In Chapter 9, Caroline Kuzemko addresses the rise of climate issues in energy governance through a case study of UK energy policy-making institutions. Climate change is revealed as a driver of energy policy, along with political perceptions of the need for energy security. She identifies the tensions between these new energy policy drivers, and the neoliberal, market focus that had previously defined the UK energy policy paradigm. These tensions influence both energy and climate policy and energy governance outcomes. Kuzemko argues that energy policy can no longer be understood in isolation from environmental considerations. In political practice, climate and energy policy are increasingly intertwined, a finding with implications for policy-making that extend to the regional and global levels.

Part III then provides two chapters relating to the transformation of the gas industry in Europe and Russia. In Chapter 10, Kim Talus focuses on the legal and contractual consequences of these regional transitions, with an empirical focus on EU natural gas markets. He analyses the drivers of energy governance changes, including the rise of international

LNG markets, the changing contractual structure of the gas industry, and the regulatory changes that have taken place over the last 20 years. The interaction between these drivers is then shown to place pressure on the traditional form of energy governance, based on long-term natural gas contracts. In addressing the changing balance between long-term contracts and spot markets in the gas industry, Talus reveals the implications of this key dynamic of regional energy governance for both producers and consumers.

In Chapter 11, Andreas Goldthau looks at the broader governance implications resulting from the transformation of Eurasian gas markets, which trigger new risks, including increased price volatility, possible gas market cartelisation, and Cobweb cycle-related incentive problems for investment in key producer countries. He argues that governance arrangements addressing these risks can be both state and market based; yet, these are in practice often at odds with one other. Particular governance challenges are seen to arise from the period of transition from indexation-based to market-based gas formulas. Goldthau argues that a gradual approach would be preferable, as when coupled with mediation mechanisms, this might smooth out the transition process.

The final chapter in Part III provides a business perspective on energy governance challenges. In Chapter 12, David Elmes looks at how corporate decision makers perceive future energy governance dynamics, and how these might drive corporate policy-making. As these policy makers in the study respond to different energy scenarios, a set of commonalities in the corporate picture of energy futures is revealed, along with a set of likely policy responses with implications of both states and markets. Key questions for regional energy governance emerge from this study which may well be overlooked by other methods. These relate to the balance of significance between energy services and energy consumption, the rise of an energy-related information economy (beginning with smart meters), the implications of increased complexity in transport fuels, uncertainty over the role of technology providers, and the manufacturing and service industries they generate, and the prospects for energy market transformations in developing and transitional countries.

In the concluding chapter, Timothy Shaw looks at global transformations, particularly in a development context, which are already reflecting back onto the regional dynamics of energy governance. He addresses the rise of non-Western middle powers (particularly 'BRICS', although the author recognises Russia's specificities within this group) at both the supply and demand end of energy markets, and the potential impact on energy, and indeed global, governance. Shaw raises a wide

range of questions about the future of energy governance, informed by the growing impact and influence of 'the rest', including non-state actors, and identifies under-researched aspects of energy governance that pertain to the 'informal' and 'illegal'. Finally, in the Afterword, Andreas Goldthau, Michael Keating, Caroline Kuzemko, and Andrei Belyi reflect on the key findings of this book, and what can be learned with regards to the empirical dynamics of energy governance in Europe and Russia, the IPE of energy in more general terms, and the themes of this volume. They conclude by suggesting future directions for research.

Bibliography

Aalto, P. (ed.) (2007) *The EU–Russian Energy Dialogue: Europe's Future Energy Security*. Aldershot: Ashgate.

Aksu, E. and J. Camilleri (eds.) (2002) *Democratizing Global Governance*. Basingstoke: Palgrave Macmillan.

Armstong, D., L. Lloyd and J. Redmond (2004) *International Organisations in World Politics*. Basingstoke: Palgrave Macmillan.

Avant, D., M. Finnemore and S. Sell (eds.) (2010) *Who Governs the Globe?*. Cambridge: Cambridge University Press.

Baghat, G. (2003) 'Pipeline Diplomacy: The Geopolitics of the Caspian Sea Region', *International Studies Perspectives*, 3: 310–327.

Baghat, G. (2006) 'Europe's Energy Security: Challenges and Opportunities', *International Affairs*, 82(5): 961–75.

Balaam, D.N. and M. Veseth (2008) *Introduction to International Political Economy*, 4th ed. New Jersey, USA: Prentice-Hall.

Bannon, I. and P. Collier (2003) *Natural Resources and Violent Conflict*. Washington, DC: World Bank.

Barnes, J. and A.M. Jaffe (2006) 'The Persian Gulf and the Geopolitics of Oil', *Survival* 2006, 48: 143–62.

Baylis, J., S. Smith and P. Owens (2011) *The Globalization of World Politics: An Introduction to International Relations*, 5th ed. Oxford, UK: Oxford University Press.

Bell, S. and A. Hindmoor (2009) *Rethinking Governance: The Centrality of the State in Modern Society*. Melbourne: Cambridge University Press.

Bernstein, S. (2001) *The Compromise of Liberal Environmentalism*. New York: Columbia University Press.

Blyth, M. (2002) *Great Transformations: Economic Ideas and Institutional Change in the Twentieth Century*. New York: Cambridge University Press.

Blyth, M. (ed.) (2009) *Routledge Handbook of International Political Economy (IPE): IPE as a Global Conversation*. New York: Routledge.

Borgerson, S.G. (2008) 'Arctic Meltdown: The Economic and Security Implications of Global Warming', *Foreign Affairs* 87(2), March/April: 63–77.

Bromley, S. (1991) *American Hegemony and World Oil: The Industry, the State System and the World Economy*. Cambridge: Polity Press.

Campbell, J.L. and O.K. Pedersen (eds.) (2001) *The Rise of Neoliberalism and Institutional Analysis*. Princeton: Princeton University Press.

Carter, N. (2007) *The Politics of the Environment: Ideas, Activism, Policy*, 2nd ed. Cambridge: Cambridge University Press.

Centre for Energy, Petroleum and Mineral Law and Policy (CEPMLP) (2006) *Security of International Oil and Gas*: *Challenges and Research Priorities: A Project for the Economic and Social Research Council*, Available at: http://www.dundee.ac.uk/cepmlp/Research/ESRC%20CEPMLP%20FinalReport.pdf, last accessed on July 2011.

Cerny, P. (1997) 'Paradoxes of the Competition State the Dynamics of Political Globalization', *Government and Opposition*, 32(2): 251–74.

Cerny, P. (2010) *Rethinking World Politics: A Theory of Transnational Pluralism*. Oxford: Oxford University Press.

Cherp, A., J. Jewell and A. Goldthau (2011) 'Global Energy Governance: Challenges, Transitions, Complexity', *Global Policy*, 2(1): 75–88.

Cheru, F. and C. Obi (eds.) (2010) *The Rise of China and India in Africa*, Part Five, 'The Scramble for African Oil and Resources'. New York: Zed Books.

Cho, D. (2008) 'A Few Speculators Dominate Vast Market for Oil Trading', The Washington Post, Thursday, 21 August. Available at: http://www.washingtonpost.com/wp-dyn/content/article/2008/08/20/AR2008082003898.html, last accessed on July 2011.

Cohen, B.J. (2008) *International Political Economy: An Intellectual History*. Princeton: Princeton University Press.

Connelly, J. and G. Smith (1999) *Politics and the Environment: From Theory to Practice*. New York: Routledge.

Correlje, A. and C. van der Linde (2006) 'Energy Supply Security and Geopolitics: A European Perspective', *Energy Policy*, 34: 532–43.

Davidson, P. (2009) 'Crude Oil Prices: Market Fundamentals or Speculation?', *Challenge*, 51(4): 110–18.

Deutch, J.M., J.R. Schlesinger and D.G. Victor (2006) *National Security Consequences of U.S. Oil Dependency: Report of an Independent Task Force*. New York: Council on Foreign Relations.

Diehl, P. (ed.) (2005) *The Politics of Global Governance: International Organizations in an Interdependent World*. London: Lynne Rienner.

Egenhofer, C. and T. Legge (2001) *Security of Energy Supply: A Question for Policy or the Markets?* Report of a CEPS Working Party (CEPS working party reports).

Erixon, F. (2009) Europe's Energy Dependency on Russia's Commercial Assertiveness. Brussels: European Centre for International Political Economy. Available at: http://www.ecipe.org/publications/ecipe-policy-briefs/europe2019s-energy-dependency-and-russia2019s-commercial-assertiveness-what-should-the-eu-do/PDF (last accessed 29 June 2011).

Finon, D. and C. Locatelli (2008) 'Russian and European Gas and Interdependence: Could Contractual Trade Channel Geopolitics?', *Energy Policy*, 26: 423–42.

Gamble, A. (2000) 'Economic Governance', in J. Pierre (ed.) *Debating Governance*. Oxford: Oxford University Press.

Gamble, A. (2009) 'British Politics and the Financial Crisis', *British Politics*, 4(4): 450–62.

Gault, J. (2004) 'EU Energy Security and the Periphery' in R. Danreuther (ed.) *European Union Foreign and Security Policy: Towards a Neighbourhood Strategy*. London: Routledge.

Giddens, A. (2009) *The Politics of Climate Change*. Cambridge and Malden: Policy Press.
Gill, S. and D. Law (1988) *The Global Political Economy: Perspectives, Problems and Policies*. Baltimore: Johns Hopkins University Press.
Goldthau, A. and J.M. Witte (2009) 'Back to the Future or Forward to the Past? Strengthening Markets and Rules for Effective Global Energy Governance', *International Affairs*, 85(2): 373–90.
Goldthau, A. and J.M. Witte (2010) *Global Energy Governance: The New Rules of the Game*. Washington, DC: Brookings Press.
Harvey, D. (2005) *A Brief History of Neoliberalism*. Oxford: Oxford University Press.
Hay, C. (2001) 'The 'Crisis' of Keynesianism and the Rise of Neoliberalism in Britain: An Ideational Institutionalist Approach' in J.L. Campbell and O.K. Pedersen (eds.) *The Rise of Neoliberalism and Institutional Analysis*. Princeton: Princeton University Press.
Hay, C. (2011) 'Pathology Without Crisis? The Strange Demise of the Anglo-Liberal Growth Model', *Government and Opposition*, 46(1): 1–31.
Hayes, M.H. and D.G. Victor (2006) 'Politics, Markets, and the Shift to Gas: Insights from the Seven Historical Case Studies', in D.G. Victor, A.M. Jaffe and M.H. Hayes (eds.) *Natural Gas and Geopolitics*. Cambridge: Cambridge University Press.
Held, D. and A. McGrew (2000) 'The Great Globalization Debate' in D. Held and A. McGrew (eds.) *The Global Transformations Reader*. Malden, MA: Polity.
Helm, D. (2005) 'Climate Change and Energy Policy' in D. Helm (ed.) *Climate Change Policy*. Oxford: Oxford University Press.
Hurd, I. (2011) *International Organizations: Politics, Law, and Practice*. Cambridge: Cambridge University Press.
Jayasuriya, K. (2001) 'Globalization and the Changing Architecture of the State: The Politics of the Regulatory State and the Politics of Negative Co-ordination', *Journal of European Public Policy*, 8(1): 101–23.
Jordana, J. and D. Levi-Faur (2005) *The Politics of Regulation: Institutions and Regulatory Reforms for the Age of Governance*. Massachusetts, USA: Edward Elgar.
Kalicki, J.H. and D.L. Goldwyn (2006) *Energy and Security: Toward a New Foreign Policy Strategy*. Baltimore: Johns Hopkins University Press.
Karns, M. and K. Mingst (2004) *International Organizations: The Politics and Processes of Global Governance*. London: Lynne Rienner.
Keohane, R. (1984) *After Hegemony: Cooperation and Discord in the World Political Economy*. Princeton, NJ: Princeton University Press.
Klare, M. (2008) *Rising Powers, Shrinking Planet: The New Geopolitics of Energy*. New York: Metropolitan Books.
Leftwich, A. (2000) *States of Development: On the Primacy of Politics in Development*. Cambridge: Polity.
Lesage, D., T. Van de Graaf and K. Westphal (2010) *Global Energy Governance in a Multi-Polar World*. Surrey, England: Ashgate.
Lieberthal, K. and M. Herberg (2006) 'China's Search for Energy Security: Implications for U.S. Policy', *NBR Analysis*, 17: 1–54.
Luft, G. and A. Korin (2009) 'Realism and Idealism in the Energy Security Debate' in G. Luft and A. Korin (eds.) *Energy Security Challenges for the 21st Century: A Reference Handbook*. California: Praeger.

Maugeri, L. (2006) 'Two Cheers for Expensive Oil', *Foreign Affairs*, March/April: 149–61.
McNamara, K. (1998) *The Currency of Ideas: Monetary Politics in the European Union*. New York, Ithaca, London: Cornell University Press.
Mitchell, C. (2008) *The Political Economy of Sustainable Energy*. Basingstoke, New York: Palgrave Macmillan.
Mitchell, J., N. Morita, N. Selley and J. Stern (2001) *The New Economy of Oil: Impacts on Business, Geopolitics and Society*. London: Royal Institute for International Affairs.
Newell, P. and M. Patterson (2010) *Climate Capitalism: Global Warming and the Transformation of the Global Economy*. Cambridge: Cambridge University Press.
Oatley, T. (2006) *International Political Economy*. Boston: Pearson.
O'Brien, R. and M. Williams (2010) *Global Political Economy: Evolution and Dynamics*, 3rd ed. Basingstoke and New York: Palgrave Macmillan.
OFGEM (2011) *Electricity and Gas Supply Market Report June 2011*, Reference 81/11, Office of the Gas and Electricity Markets, 22 June.
O'Hara, P.A. (ed.) (2004) *Global Political Economy and the Wealth of Nations: Performance, Institutions, Problems and Policies*. New York: Routledge.
Ohmae, K. (1995) *The End of the Nation State: The Rise of Regional Economies*. New York: Free Press.
Orban, A. (2008) *Power, Energy, and the New Russian Imperialism*. Westport, CT: Praeger.
Palan, R., J. Abbots and P. Deans (1996) *State Strategies in the Global Political Economy*. London: Pinter.
Phillips, N. (2005) ' "Globalizing" the Study of International Political Economy' in N. Phillips (ed.) *Globalizing International Political Economy*. New York: Palgrave Macmillan.
Phillips, N. and C. Weaver (eds.) (2011) *International Political Economy: Debating the Past, Present and Future*. Oxon: Routledge.
Pierre, J. (ed.) (2000) *Debating Governance: Authority, Steering, and Democracy*. Oxford, New York: Oxford University Press.
Pierre, J. and B.G. Peters (2000) *Governance, Politics and the State*. London: Macmillan
Plehwe, D., B. Walpen and G. Neunhöffer (eds.) (2006) *Neo-liberal Hegemony: A Global Critique*. London: Routledge.
Ravenhill, J. (ed.) (2011) *Global Political Economy*, 3rd ed. Oxford: Oxford University Press.
Roberts, J. (2004) *Environmental Policy*. New York: Routledge.
Shaffer, B. (2009) *Energy Politics*. Pennsylvania: University of Pennsylvania Press.
Sinclair, T. (2005) *The New Masters of Capital: American Bond Rating Agencies and the Politics of Creditworthiness*. Ithaca, New York: Cornell University Press.
Smith, K. (2006) Security Implications of Russian Energy Policies, *CEPS Policy Brief*.
Soederberg, S., G. Menz and P. Cerny (eds.) (2005) *Internalizing Globalization: The Rise of Neoliberalism and the Decline of National Varieties of Capitalism*. Basingstoke: Palgrave Macmillan.
Sornette, D., R. Woodward and W-X. Zhan (2009) 'The 2006–2008 Oil Bubble: Evidence of Speculation and Prediction', *Physica A: Statistical Mechanics and its Application*, 388(8): 1571–76.

Spero, J.E. and J.A. Hart (1997) *The Politics of International Economic Relations*, 5th ed. Oxford: Routledge.
Stevens, P. (2010) 'The "Shale Gas Revolution": Hype and Reality', *A Chatham House Report*. London: Chatham House.
Stilwell, F. (2006) *Political Economy: The Contest of Economic Ideas*, 2nd ed. Oxford: Oxford University Press.
Stone, D., S. Maxwell and M. Keating (2001) *Bridging Research and Policy*, Centre for the Study of Globalisation and Regionalisation (CSGR)/Overseas Development Institute (ODI).
Strange, S. (1988) *States and Markets*. London: Pinter.
Strange, S. (1996) *The Retreat of the State: The Diffusion of Power in the World Economy*. Cambridge: Cambridge University Press.
Stubbs, R. and G.R.D. Underhill (1994) *Political Economy and the Changing Global Order.* Oxford: Oxford University Press.
Stubbs, R. and G.R.D. Underhill (2006) *Political Economy and the Changing Global Order*, 3rd ed. Oxford: Oxford University Press.
Stulberg, A.N. (2008) *Well-Oiled Diplomacy: Strategic Manipulation and Russia's Energy Statecraft in Eurasia*. New York: State University of New York Press.
Taylor, I. (2006) 'China's Oil Diplomacy in Africa', *International Affairs*, 82: 937–59.
Victor, D.G., A.M. Jaffe and M.H. Hayes (eds.) (2006) *Natural Gas and Geopolitics*. Cambridge: Cambridge University Press.
Watson, M. (2005) *Foundations of International Political Economy*. Basingstoke: Palgrave Macmillan.
Watson, M. (2009) ' "Habitation vs. Improvement" and a Polanyian Perspective on Bank Bail-outs', *Politics*, 29(3): 183–92.
Yergin, D. (2007) The Fundamentals of Energy Security: A Testimonial before the U.S. House of Representatives Committee on Foreign Policy, Washington, DC. Available at: http://foreignaffairs.house.gov/110/yer032207.htm.
Yergin, D. and J. Stanislaw (1998) *The Commanding Heights: The Battle between Government and the Marketplace that is Re-making the Modern World*. London: Simon and Schuster.
Youngs, R. (2009) *Energy Security: Europe's New Foreign Policy Challenge*. Abingdon, New York: Routledge.
Zweig, D. and B. Jianhai (2005) 'China's Global Hunt for Energy', *Foreign Affairs*, 84(5): 23–38.

Part I
Transnational Dynamics

1

Legal Approximation in Energy: A New Approach for the European Union and Russia

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1. Introduction

Legal approximation, harmonization and unification became central for international cooperation in the twentieth century. According to some estimates, the second half of the twentieth century witnessed a 70 per cent increase in multilateral treaties setting common trade, investment and arbitration conditions, compared to what was the case in between 1850 and 1950 (Ku 2001: 4). It also gave boost to the development of model legislation in the framework of the International Institute for the Unification of Private Law (UNIDROIT), the United Nations Commission on International Trade Law (UNCITRAL) and other bodies; those model acts served examples in the process of legislative alignment. This phenomenon resulted from intensified transnational relations, from ever-increasing contacts among companies, civil societies and individuals, which led to the widening and deepening of the dialogue among various public bodies. In other words, private activities started to undermine the centrality of the state and the power of national boundaries. State authorities, therefore, increased their cooperation to provide a new set of regulations for both business and the non-profit sectors, and thus preserved their status in the regulation of various activities.

This process logically provoked numerous debates on the retreat of the state (Cutler 2003; Strange 1996), on network governance (Rhodes 1997; Stone 2004), on 'transgovernmental relations' (Keohane and Nye 1977; Slaughter 2004) and on legalization (Brütsch and Lehmkuhl 2007; Finnemore and Toope 2001; Goldstein et al. 2000; Wilets 2009).

Legal approximation, harmonization and unification are driven by both politics and economics. In this process, the domestic context has been strongly influenced by the international one. At the same time domestic rules and patterns have been extrapolated on the international level and have shaped the emerging transnational norms. In that, this is a mutually reinforcing process. As a consequence, national and international rules and legal contexts became blurred (Leebron 1996; Wiener 1999). This fluidity is part and parcel of the wider context, which is the subject matter of international political economy (Cox 1997; Gill and Law 1998; Gilpin 2001; Strange 1994). Legal approximation was also linked to the process of globalization. While some made it a reason of globalization (Scholte 2005), others looked at the intricacies of legal approximation as a consequence of globalization (Backer 2007; Basedow and Kono 2000; Lynch 2003; Meessen 2004; Mistelis 2001a, b; Wiener 1999).

The transnational character of legal approximation, its national-international and public-private dynamics and the influence of both politics and economics on it justify its analysis in the present volume, devoted to the political economy of energy.

Theoretical approaches to legal approximation between a state and an entity like the European Union (EU) have remained underdeveloped. The above-mentioned literature witnesses that legal approximation, or harmonization, has been explored as a factor, which changes the interaction among states, and between the business and the state. Economists also discussed advantages and deficiencies of legal harmonization vs. regulatory competition (Carbonara and Parisi 2005; Sun and Pelkmans 1995). Theoretical approaches to legal harmonization, suggested in the EU's context, emphasize a gradual convergence among member-states or candidate countries. This process is also extrapolated by EU experts on third partners of the EU, although in a rather unilateral manner (that is, third partners changing their legislation to bring it in line with that of the EU). An alternative, offered by the theory of international law, is the gradual development of a shared set of rules that results from international cooperation. None of these approaches, however, accurately describes the relations between the EU and a third country, which does not aspire to become its member and yet is in close economic cooperation with the EU and has the ambition to construct a strategic partnership. Therefore, the author of this chapter believes that an alternative approach is needed.

This chapter first looks at the two existing approaches to legal approximation between the EU and a third country (Russia). Next,

an alternative approach is suggested. This new approach is tested on EU-Russian energy relations, the most intensive and productive sphere of EU-Russian interaction to date. In particular, the successful case of the clean energy agenda is contrasted with a failure of the market-making agenda. This difference is explained through the lenses of the suggested alternative approach to legal approximation. Finally the chapter discusses the lessons drawn from the application of the new approach. It identifies avenues for future research and puts forth some policy recommendations.

2. Towards a new approach on legal approximation between the EU and third partners

Legal harmonization and legal approximation are terms developed in the course of the evolution of the EC (EU) law. Originally 'the concept of "harmonization" only featured in one single provision (Art. 99EEC, in relation to indirect taxes). With regard to all other matters the term "approximation" was used and was only replaced by the formal term "harmonization" in paragraphs 4 and 5 of Article 100a of the Single European Act in 1987 (now Art. 95 (4) and (5))' (Curtin et al. 2006: 12; see also Van Gerven 2004). So, approximation is associated with the old notion of common market and complete authenticity, while harmonization is linked to the internal market, mutual recognition and minimal legal convergence.

At present the terms are mostly used as synonyms; therefore they are used as equivalents in this chapter. The history of definitions, however, vividly demonstrates that the theory of legal approximation was initially developed for the EU's internal purposes. The idea was to level the legal playing field with the aim of constructing a common (later internal) market. Hence, legal approximation was a part of the EC's (EU's) internal process of establishing a specific *sui generis* system of law with member states actively participating in setting goals, in drafting specific provisions and in their implementation. Moreover, the evolution of terminology also reminds us of the change, which made the EU's legal approximation a success. Originally, it presupposed total harmonization of all rules and standards. This, however, turned out to be too resource- and time-consuming. Therefore, the Commission modified its approach. A choice was made to approximate only essential norms and standards while guaranteeing mutual recognition of national standards and regulations in other fields. Besides, there was a shift towards directive-based integration, which meant fixing binding goals

while providing for flexibility regarding the instruments to achieve these goals. This modified approach allowed member states to cut costs of legal convergence, to increase the speed of convergence and, most importantly, to better account for national specificities (both regarding the nature of regulation and the specific problems to be solved on the way to common goals). It is, therefore, noteworthy that the current definitions of legal harmonization/approximation stress compatibility rather than full authenticity of norms. For example, De Fouloy defines harmonization as 'adjustment of the legislation or administrative provisions of the member state in a given sector so that they are in accord with each other' (1992: H-227), while Egan specifies that 'harmonization of policies was a means of reconciling differences in national regulatory practices and creating common rules' (2006: 32). 'The new approach meant that a number of different harmonization *methods* came to be used: *total* harmonization . . . *optional* harmonization . . . *partial* harmonization . . . *minimum* harmonization . . . *alternative* harmonization . . . mutual recognition' (Van Gerven 2004: 508) instead of complete alignment of all norms.

It was the emergence of the internal market in the 1980s that eventually led to the development of the external component of legal approximation. The EC, later the EU, has since that time included legal harmonization in agreements with third countries, but the process has been a one-way street, from the EU, the sole author of the norms, to its partners, with virtually no flexibility for the latter. The scope of this approximation, its substance and procedures differ depending on the type of cooperation between the EU and a third country (Bordachev and Romanova 2003; Petrov 2008; Petrov and Hillion 2006; Prange-Gstohl 2009). But in any case there is a discussion neither about the substance of the norms nor about the means to introduce them in practice. While the EU's approach has evolved and shifted from 'complete harmonization' to 'minimum approximation' internally, it did not do so externally. On the contrary, the old, maximum approach to legal approximation in its relations with outsiders has grown in its rigidity. Moreover, little difference is made between countries that would like to be part of the EU and those that would prefer to stay outside while cooperating with Brussels in selected policy areas.

The focus of Russian specialists has been on the adoption of international norms by the domestic legal system (Anufrieva 2002; Chernichenko 1999; Gaverdovsky 1980; Gavrilov 2005; Mingazov 1990; Mironov 1968; Mullerson 1982; Usenko 1995; Zimnenko 2005, 2006). More recently Russian specialists started examining legal harmonization

and unification through international agreements (Bakhin 2002; Mamutov 1999; Vilkova 1998) and model norms, developed in different international fora (Bakhin 2003). This approach is similar to international law studies in other countries (see, for example, Buxbaum and Hopt 1988; Buxbaum et al. 1991; Fazio 2007). Hence, and in a nutshell, Russian studies in international law has concentrated on the 'dialogue between international law and national law' (Yaremenko 2007), that is on a process in which Russia participates in drafting norms and then incorporates them in its national legislation by various means. A specific approach to legal approximation between Russia and a third country, or a block of countries, like the EU, does not exist.

At the same time, the EU-Russian Partnership and Cooperation Agreement (PCA) presupposes exactly this case of horizontal convergence. It recognizes 'that an important condition for strengthening the economic links between Russia and the Community is the approximation of legislation'; it also puts the burden of implementation on Russia, which 'shall endeavour to ensure that its legislation will be gradually made compatible with that of the Community' (Russian Federation and the European Union 1994, article 55). The PCA is a fine example of the unilateral way legal approximation is handled. It effectively means that Russia has to carry the burden of change towards the EU's acquis, which has been drafted with no attention to the needs of Russia. Another problem with this approach is that it hinges on the total approximation as opposed to agreeing on the goals and leaving it to the partners to decide on the instruments to achieve them.

The goal of legal approximation in EU-Russian relations was confirmed in a milder way in the 'Roadmap for a Common Economic Space' in 2005. It reads that its objective is the 'development of harmonised and compatible standards, regulations and conformity assessment procedures, where appropriate, including through enhanced regulatory dialogue and cooperation between responsible institutions and a reinforcement of the institutional capacities' (Russian Federation and the European Union 2005). The reference to Russia just copying the EU's legislation thus disappeared (in comparison to the PCA), but a new approach to bringing two sets of legislation closer together did not emerge. Hence, legal cooperation between the EU and Russia was left in a conceptual vacuum.

There have been suggestions on how to leave this impasse. The Russian-European Centre for Economic Policy (RECEP) in the early 2000s, for instance, provided a venue for the development of a horizontal concept of legal approximation in Russia. However, most analysts

just copied the EU's definition, dodging the question of Russia not participating in the development of the EU's norms. Kashkin defined the process of harmonization as 'a softer method of legal integration', which 'does not mean total uniformity but is rather based on the convergence of legislation of various states' (2005: 9). He also tried to alleviate the problem of Russia's unilateral reception by recommending that the EU takes into account Russian interests while adopting new legislation (Kashkin 2005: 23), which for the moment remains just wishful thinking. Isaev, in turn, described harmonization as 'convergence of systems of legislation, integration of key principles and parameters of legal systems with national specificity taken into account' (2005: 6). In other words, he tried to extrapolate on Russia the principle, which the EU applies internally, the flexibility as to the instruments, used to achieve the goal. Entin emphasized that the EC's legal system is external for Russia and therefore Moscow tends to interpret legal harmonization as 'convergence, or mutual movement to a desired legal reality', whereas the EU expects third countries to 'receive' all the acquis as they are, unchanged (2006: 330). He, therefore, contrasted the Russian international law approach with the one that the EU applies to third countries. Finally, Romanova (2005) mentioned that not all the EU's acquis could be incorporated in the legislation of third countries because EU's rules were not necessarily a solution to their problems.

Surprisingly, no attention was paid to the fact that legal approximation between the EU and third countries can be examined as a multi-level process. This multi-level process is a logical development of the EU's current minimalist approach to legal approximation. For its members, the EU distinguishes between the goals and the means to be achieved, providing for flexibility. Legal approximation between the EU and a third country should provide for the flexibility at the implementation level as well.

This differentiation between various levels is the basis of the new approach to legal approximation, which is advanced in this chapter. It is designed for the relations between the EU and a third partner that does not aspire to join the EU. Three levels can be clearly identified in any such process of legal approximation – strategic goals, policy goals and implementation.

The first level is one of strategic goals. Russia and the EU define their goals as cooperation and strategic partnership. Both partners also agree that their cooperation is supposed to promote democracy, human rights and the rule of law. This is also the level where equality between the partners, a fundamental notion of Russian foreign policy, is to be guaranteed. In terms of legal approximation this means a joint

definition of goals. Finally, the notion of trust in the partner, and in their legal system, is located here. The basics of this level are spelt in the PCA and other EU-Russian bilateral acts. It is also nurtured by the cooperation in various international bodies where both Russia and the EU are (future) equal members (like the UN, Council of Europe, Kyoto Protocol, or WTO).

The next level in the new approach to legal approximation is that of policy goals. A good example in the field of energy would be the development of renewable energy sources (RES) or limiting the harmful environmental impact stemming from the use of energy. Another example is the construction of a common European energy market characterized by a free movement of goods and services, and by consumer protection. Relevant provisions are fixed in both PCA and energy-related documents.

Finally, the third level is that of implementation. It is about how policy priorities are brought to life. Examples that come to mind are measures to stimulate the development of RES, like feed-in tariffs or green certificates. Technical harmonization (i.e. harmonization of various standards) is also located on this level. This is also the level of various institutional provisions of legal approximation, that is the cooperation between legislative assemblies, transnational dialogues, adjudication, private sector support and other.

The top, strategic level of our approach is mostly about politics; policy goals are set out for both political and economic reasons; implementation measures are, by contrast, mostly defined by specific economic realities, by cultural specificity, by a particular configuration of public-private factors and by the very problems which are to be solved while achieving the policy goals (see Table 1.1).

To shed more light on the suggested three-level approach to legal approximation, the next section applies this new approach to two selected domains of EU-Russian energy relations: market-making and

Table 1.1 Three levels of the new approach to legal approximation and their determining factors

Level		**Determining factor**
Strategic goals	→	Political reasoning (high politics)
Policy goals	→	Political and economic reasoning (low politics)
Implementation mechanism	→	Economic realities Cultural specificity Public-private relations

clean energy. The cases are chosen because of the vivid contrast between the success of clean energy on the one hand and the blunt failure in market-making on the other, which calls for explanation.

The explanatory power of the three-level approach will be explored through three guiding questions. The first one is how important it is to allocate issues in the legal approximation process to the right level, and what are the consequences of an incorrect allocation. The second question is what sort of goals' definition (both strategic and policy-related) should be exercised, and whether they can be defined exclusively by one party, or whether there is a strong need for joint ownership. The third, and final, one is whether there is a need for the flexibility at the implementation level of legal approximation between the EU and a partner that does not aspire to become an EU member state.

3. EU-Russian energy relations through the prism of the new approach to legal approximation

EU-Russian energy cooperation was scarcely mentioned in the PCA, and there was no reference to it in article 55 of the PCA on legal approximation. The reason for this is that energy was expected to be regulated by the Energy Charter Treaty 'against a background of the progressive integration of the energy markets in Europe' (Russian Federation and the European Union 1994, article 65). However, Russia has never ratified the Energy Charter Treaty, which left EU-Russian energy cooperation with no clear legal basis.

At the same time, energy to date has been the most intensive field of EU-Russian cooperation. According to official estimates, 74 per cent of their bilateral trade comes from mineral fuel and related energy goods.[1] The EU imports about 60 per cent of Russian natural gas exports, which is about 20 per cent of the EU's consumption. EU member states are also a destination for 50 per cent of Russian oil exports, which amounts to about 34 per cent of the EU's consumption (European Commission 2010b, c). According to some unofficial Commission estimates, the EU also gets about 40 per cent of its nuclear materials for power plants from Russia. Finally the EU is the source of new energy-saving technologies for Russia as well as ways of producing RES and improving energy efficiency.

To fill the legal vacuum, which emerged following Russia's non-ratification of the Energy Charter Treaty, the EU and Russia have relied on general PCA provisions, of which article 55 on legal approximation was one. In addition, a political process, the EU-Russian energy dialogue,

was set up in 2000 to 'enable progress to be made in the definition of an EU-Russia energy partnership and arrangements for it' (Russian Federation and the European Union 2000). Currently it is the longest functioning EU-Russian dialogue, which pompously celebrated its tenth anniversary in autumn 2010.

In the field of EU-Russian energy cooperation two focal points emerged: the development of energy markets and the improvement of trade and investments – the market-making agenda; and energy efficiency, the development of RES, curbing CO_2 emissions and related environmental aspects – the clean energy agenda. Both, however, differ with regard to the progress that has been made. This point is further explored in this section.

3.1 The success: Clean energy agenda in EU-Russian energy relations

The 1994 PCA identified clean energy as a promising field of cooperation. In particular, its article 67 included cooperation in 'promotion of energy saving and energy efficiency' and in limiting 'the environmental impact of energy production, supply and consumption', whereas article 69 contained provisions on environmental cooperation (Russian Federation and the European Union 1994). However, cooperation in clean energy had a relatively slow start. Most attention was captured by the security of supply and producer–consumer relations, whereas energy efficiency, RES and environmental impact of energy use escaped the limelight.

Nevertheless, today's results look impressive. In 2004, Russia completed the ratification of the Kyoto protocol. In 2003–04 Brussels and Moscow agreed in the International Maritime Organization to phase out single-hull tankers for oil transportation. Furthermore, Brussels and Moscow carried out extensive discussions on gas flaring. Eventually, the Russian government adopted a decision (Russian Federation 2009c), which obliges oil companies to utilize 95 per cent of the accompanying oil gas by 1 January 2012.

In the area of energy efficiency, the EU and Russia set up demonstration projects in Archangelsk, Astrakhan and Kaliningrad. In 2001, Russian participants were integrated in the Organisation for the Promotion of Energy Technologies (OPET), which brings together companies working in the field of RES and energy efficiency. An EU-Russian Energy Efficiency Initiative was set up in 2006, which became a platform for discussions on both legal and policy-related issues. Numerous projects in these fields were carried out by the EU and Russia virtually every year.

The discussion was coordinated by a special EU-Russian thematic group, set up permanently in 2009. Finally, a Common Spaces Facility project on energy efficiency was launched in 2010 to provide financial support for clean energy projects.

To what extent does the three-level approach to legal approximation explain the obvious progress in this issue-arena? Firstly, the issues have been neatly allocated to their level. At the strategic level, Russia has invested a lot in green energy initiatives to demonstrate that it is in the club of 'good' countries, supporting innovative approaches to energy use. Recently, Russia even started promoting the concept of environmental donorship, according to which the environmental status of a country is determined not only by its CO_2 emissions but also by how much global good (for example, forest sinks, provision of natural gas, which improves energy efficiency etc.) it supplies (Russian Federation 2009d). In sum, a growing political meaning is attached to the promotion of clean energy: the idea is that it is not only about environmental protection per se but also about increasing the overall weight of Russia in the international arena. It is parallel to the EU's quest for global environmental leadership (Bretherton and Vogler 2006).

Secondly, the EU and Russia specified policy-related goals carefully. They also managed to considerably converge their definition of these goals. The EU's 2006 Green Paper proclaimed three goals, of which clean energy is one (European Commission 2006b). Russia's 2003 energy strategy stressed an increase in energy efficiency and the minimization of environmental impact of energy as priorities (Russian Federation 2003). The 2009 Russian energy strategy put 'energy efficiency' and 'environmental safety of the energy sector' among four 'strategic guidelines of the long-term state energy policy', whereas development of non-fuel energy (i.e. nuclear, RES) and energy saving are among five strategic initiatives (Russian Federation 2009a). Moreover, most of the goals were either set by the EU and Russia individually or defined in close cooperation within the framework of international organizations, in which both have been equal partners (e.g. the Kyoto protocol or the International Maritime Organization). That means Russia's right to participate in the decision-making and to define the priorities are on par with the EU, which greatly decreases any unilateral character of legal approximation.

Thirdly, the EU and Russia converged at the third, implementation, level as well. The definition of their specific goals is identical. The EU proclaimed in 2007 and then legislatively fixed the so-called 20-20-20 goals. These are 20 per cent reduction in CO_2 emissions compared

to 1990 levels, 20 per cent improvement in energy efficiency and 20 per cent increase of the share of RES by the year 2020 (European Commission 2008a, b, 2010a; European Council 2007). Russia, for its part, put forward its 2003 energy strategy, setting the goal of improving energy efficiency by factor two. The 2009 energy strategy stipulates an increase in energy efficiency by 45 per cent by 2030. It also intends to increase the production of renewable sources of energy. The amount of hydro-power is to grow from the current 47 mln kWh to 57–59 mln kWh (although its share in the energy balance will slightly decrease from 20.6 per cent to 18.3–19.7 per cent). The share of other RES is projected to increase from 1.5 per cent in 2008 to 4.5 per cent in 2020. In total, RES will make up 20 per cent of the Russian energy balance in 2020, which exactly mirrors the EU's goal (Russian Federation 2003, 2009a). On top of it, Russia has also become active in reducing CO_2 emissions. The current message of Moscow is that regardless of whether the global warming is driven by the CO_2 emissions or not, Russia is determined to win on improved energy efficiency, better energy transportation and overall modernization of the sector.[2] The importance of the energy sector for decreasing Russian CO_2 emissions is also confirmed by the 2009 Russian Climate Doctrine.

The EU and Russia also saw convergence at the level of implementing instruments. There is a stunning similarity between energy efficiency and energy saving initiatives of Russia (Russian Federation 2009a, b) and the EU (Council of Ministers 1992; European Commission 2005, 2006a, 2008b; European Parliament and the Council 2000, 2009). Both provide for stipulations on energy efficiency labelling of electronic appliances, phasing out of incandescent light bulbs, improvement of energy and heat efficiency in buildings or compulsory energy efficiency audits of public buildings.

Finally, there is no institutional barrier in clean energy, such as historical stakeholders, that would block innovation. The field is mostly occupied by small and medium companies, which are interested in policy and standards' convergence to be able to move freely across the border with low transaction costs.

To sum up, the clean energy arena presents us with the case of clear allocation of issues to their levels. This cooperation reinforced certain strategic goals, like equality and environmental donorship, for which Russia strives, or the EU's leadership in environmental affairs. The goals in clean energy were defined jointly by the EU and Russia, either within international fora or individually and yet simultaneously. This alleviated the problem of a unilateral character of legal approximation,

forcing Russia to align its legislation with the already adopted EU norms. Finally, implementation mechanisms were left to the parties, but they converged as well.

3.2 The failure: Market-making in the EU-Russian energy relations

The results of the market-making agenda of energy relations have so far been much more modest. As such, market-making has never been specifically mentioned in the PCA. Its article 65 talks only about cooperation in 'formulation of energy policy', 'improvement in management and regulation of the energy sector in line with a market economy' and 'the introduction of the range of institutional, legal, fiscal and other conditions necessary to encourage increased energy trade and investment' (Russian Federation and the European Union 1994).

The crux of this cooperation is the EU's belief in the liberal paradigm, that is in free markets, which is supposed to provide for the most efficient and consumer-friendly organization of the sector and 'the best way of ensuring safe and affordable energy supplies' (EU 2006). Accordingly, Brussels would like to see Russia aligning its legislation on natural gas and electricity with the EU's liberalization processes, including the ongoing process of unbundling, that is the break-up of vertically integrated companies into upstream, midstream and downstream businesses to guarantee equal access of all producers to various pipelines and electricity lines. Moreover, because of the high external dependence on a limited number of sources, liberalization in the EU itself would only come true if the EU's suppliers went through unbundling. Thus the EU's internal processes put pressure on the Commission to promote liberalization externally. Finally, the demand for liberalization was the only type of external energy action, which the EU as a whole could promote. The intricate division of competences between the EU and its member-states makes the former responsible for the internal market and liberalization and therefore also for the external dimension of liberalization. National bodies, by contrast, preserve their authority in energy security and energy mix.

The EU used various ways to promote liberalization. It drafted the Energy Charter and its Treaty in accordance with the EU's legislation of the early 1990s. It held discussions with Russia to explain the benefits of liberalization and to encourage Russia to 'mimic' these provisions (McGowan 2008; see also Bressand 2010; Romanova 2003, 2009). Moreover, it tried to impose on Russia the unbundling of transportation

in the natural gas sector, an increase in internal gas prices and a ban on Gazprom's export monopoly by means of the terms of Russia's accession to the WTO. The Commission also tried to limit Russian investments in the EU's energy sector until Russia complies with the EU's liberalization legislation, though it only succeeded in persuading member states to have it as an option, which can be applied by national authorities.

Russian expectations of energy cooperation with the EU were entirely different (Romanova 2008). The liberalization of the Russian electricity sector was implemented in a similar way as the EU's. However, Russia has resisted all EU attempts to liberalize its natural gas sector, which in 2008–09 led to a heated politicization of the energy dialogue. In fact, two related goals of the 2003 Russian energy strategy were 'to create conditions for the financial and economic stability of the energy structures and institutions' and 'to ensure innovative development of the sector through its dramatic modernization' (Russian Federation 2003). The 2009 energy strategy made market-related goals even more precise (Russian Federation 2009a). One is energy security with regard to possible threat arising on a domestic level, for example from depreciated equipment and old infrastructure, a lack of investments, high dependence on natural gas, and underdeveloped Eastern Siberia and Far East. The second goal is budgetary efficiency, or the ratio between what the government spends on the energy sector and the returning profit in the form of tax revenues and income from company shares, owned by the state.

In the light of this, it is hardly surprising that positive results of the market-making agenda in EU-Russian energy dialogue have been limited. The best-known one is the resolution of the conflict over long-term gas contracts, which since the 1970s have formed the legal basis for the natural gas supply from the Soviet Union/Russia to EU member states and provided a guarantee for huge investments in gas fields' development and in pipelines' construction. The contracts were preserved but some conditions were altered. Another success is a feasibility study on the synchronous interconnection of EU and Russian electricity grids. It is, however, a paper success because its implementation was postponed indefinitely.

The first and possibly most illuminating conclusion from the market-making interaction of the EU and Russia is that their conflict is not so much one of a paradigmatic collision of 'state versus market'. In fact, liberalization, which is promoted as a policy goal of the EU, is actually an implementing measure, which derives from the EU's market philosophy. The same goes for Moscow's goal of budget efficiency in the energy

sector, which is nothing but an implementing measure. Thus, the most serious problem of EU-Russian market-making agenda in energy is the confusion between the level of policy goals and that of implementation.

If liberalization and budget efficiency are only implementing measures, then the question is what the policy goals are. They are, apparently, an efficient organization of the sector, stable investment flows and security of supply as well as consumer protection and the construction of the single market. And, in this way, the EU's and Russian goals are perfectly compatible.

However, their implementation varies. It is exactly here where the second flaw of the market-making agenda occurs: in their conflict about market-making modalities, the EU and Russia failed to account for specificity and to provide for flexibility at the implementation level. Moreover, some powerful players resist the liberalization agenda both in the EU (incumbent energy companies) and in Russia (for example, Gazprom).

Thirdly, and finally, the EU tried to impose its vision on Russia, which challenged Russia's internal definition of its policy goals. In other words, there was no shared ownership. Rather, the interaction was structured along a unilateral pattern with the EU imposing its vision, its goals and Russia rejecting the process as much as it was rejecting the substance of interaction. Moreover, the idea to construct the single market on the basis of the EU's vision undermined the fundamental principle of equality, cherished by Russia at the strategic level. The idea to spread the EU's paradigm was also viewed in Moscow as an effort to make Russia step back from its sovereign right over natural resources and from the right to regulate access to them, which also contradicts the strategic thinking of Russia.

To sum up, market-making legal approximation in the EU-Russian energy dialogue failed because of the confusion among the three levels, a lack of implementation flexibility and a lack of a shared definition of goals, that is, due to the unilaterality of the process. On top of it, fundamental concepts (like critical for Russia equality or sovereignty over resources) were challenged.

4. The three-level approach to legal approximation in EU-Russian energy relations: Where to go next?

The application of the new three-level theoretical approach to legal approximation to the experience of EU-Russian energy relations is illuminating and at the same time raises a number of policy implications.

4.1 Avenues for future research

With regard to the initial questions guiding the case studies, various conclusions can be drawn. First, with regard to whether careful allocation of issues to the specific (strategic, policy-related or implementation) level was essential, our cases indicate that the success of the clean energy agenda was to a considerable degree motivated by the EU and Russia carefully identifying the policy goals and implementing measures. On the other hand, the failure of the market-making agenda has been predetermined by the confusion between policy goals, on the one hand, and implementing measures, on the other hand. To further complicate the situation, the parties overlooked policy goals due to excessive attention to implementing instruments.

The second question, put forward before the case studies, was about the need to jointly define both strategic and policy goals. Again, the success of the clean energy agenda has been predetermined by it being defined through the international fora, where both the EU and Russia are equal members, or by their convergence in the goals, being defined internally. Both things alleviated the problem of unilateralism in EU-Russian legal approximation. In addition clean energy agenda, in fact, reinforced strategic goals, which the EU and Russia pursue both individually (for example, equality for Russia) and together (environmental leadership, cooperation). The market-making agenda, again, presented a negative experience. At the policy goal level, the EU tried to impose its own goals rather than to listen to the Russian ones and to make an effort to come to some common ground. In essence, the talk was about Russia's unilateral alignment of its legislation to that of the EU, with little account for the interests of Russia or for its internal problems. On top, this approach challenged two fundamental strategic ideas that Russia cherishes, these are equality among key powers of today (of which the EU and Russia are two, according to Moscow's thinking) and sovereignty over natural resources.

Finally, the third question that has been explored is that of the need for flexibility at the implementation level. Generating clear-cut answers on this point faces clear limitations due to the small number of investigated cases. What can be said is that the clean energy agenda presents a situation of complete convergence in both policy goals and implementing mechanisms while market-making agenda demonstrates the fallacies of the lack of flexibility at the implementation mechanism.

There are at least three reasons, which call for sufficient flexibility at the level of implementation. One is historical legacy and traditions. In our case 'the EU suffers from an inherent embedded liberal bias that

automatically puts policy formation in the gas sector within a neoclassical framework' (Van Der Meulen 2009: 843). Russia, on the other hand, is characterized by the belief that state participation is the key to ensure the highest profit and most efficient organization of the energy sector. This idea is reinforced by the Russian history of state (not private) modernization. Another reason for the implementation flexibility is that various partners frequently have to solve divergent problems on the way to the same goal. In our market-making agenda, the EU strives to decrease prices for final consumers while Russia has to increase them (especially for households) and to eliminate cross-subsidization among different consumers and geographical zones. The EU has to preserve a certain level of investments while Russia has to mobilize additional flows to modernize its outdated sector with swiftly depreciating production and transportation capacities. Last but not least, flexibility at the implementation level will take into consideration existing stakeholders. Dynamic small and medium enterprises, which are active in clean energy field of EU-Russian cooperation, support greater legal approximation and do not have the capacity to resist changes. On the other hand, big energy players in the field of market-making well function in a non-market situation and resist changes, which would undermine their status.

Further studies are needed to prove our new, three-level approach to legal approximation. It is particularly necessary to clarify the need for flexibility. An additional question, which is to be considered, is the extent to which flexibility of implementation can be tolerated. In other words, what difference in the implementation mechanisms does not distort policy goals? This dilemma remains an issue of concern not only for EU-Russian relations but also for EU internal affairs.

Another dilemma to be resolved is the relative importance of the three levels and the extent to which they influence each other. In other words, the question is whether policy goals' convergence can be the main lynchpin for effective legal approximation. Or does it need a prop from strategic level in the form of equality and also in the form of the overall trust in the political and legal systems of the partner. This is a peculiar problem that characterizes EU-Russian relations (as well as Brussels' dialogue with other third countries and even with some member states).

4.2 Policy consequences

Despite the clear need for future studies, however, some policy recommendation can already be identified. The three-level approach to legal

approximation provides some ground for optimism in relation to the market-making agenda of EU-Russian energy relations.

Firstly, market-making cooperation should be addressed from the position that grants equality to Russia and decreases the unilateral character of approximation. One option would be to involve international organizations, where both the EU and Russia are (prospective) members. From this point of view, the fastest accession of Russia to the WTO and all its mechanisms is crucial. Moreover, despite the Russian decision not to ratify the Energy Charter Treaty, it remains bound by it for the years to come. Moscow's ideas about a new global energy regulation can also be dealt with in that organization. Furthermore, discussions on energy in the framework of the G-8 are critical for the convergence in strategic visions. At the interstate level a useful instrument, which is frequently overlooked, is a network of bilateral investment treaties (see Dreyer 2009; Erixon 2008; Romanova 2003). Their potential in EU-Russian relations increased due to the recent communitarization of the EU's external investment policy in the Lisbon treaty (EU 2007).

Secondly, EU-Russian energy market-making should be addressed at the policy goals' level. These are quite compatible: both sides strive to encourage investments, to provide for security of supply, to guarantee fair price to final consumers and to ensure an efficient organization and a common market in the long run. Instruments to achieve these goals are different because the EU and Russia have different traditions (market-oriented vs. state modernization) and also because they have different problems to solve on their way to the pursued goal.

Approaching market-making legal approximation from this point of view will help avoid mixing policy goals with their implementation mechanism and will provide for a needed degree of flexibility in the implementation. This is also consistent with the minimum harmonization and negative integration (based on mutual recognition and maximum flexibility) that dominate in the EU. Above all, it will alleviate the problem of Russia's unilateral harmonization with the EU's norms and rules. This strategy is not meant to deny the positive sides of liberalization and competition but rather to say that Russia is not (yet?) ready for it.

These shifts will open the way for more constructive EU-Russian energy relations, which will ultimately benefit both sides, both the public and the private sector. It will also be another step to stabilize regional and global energy markets.

Notes

1. Calculated by the author on the basis of the data provided by the European Commission (2010b) and Eurostat (2010). According to some other sources (Russian Federation and the European Union 2010), only 65 per cent of EU-Russian trade comes from energy.
2. The 2009 energy strategy specifies that the Russian energy sector is the key polluter; it causes 50 per cent of harmful emissions in the atmosphere and about 20 per cent of discharge in rivers, lakes and other water reservoirs.

Bibliography

Anufrieva, L.P. (2002) *Sootnoshenie mezhdunarodnogo publichnogo i mezhdunarodnogo chastnogo prava: pravovye kategorii* (Moscow: Spark).

Bakhin, S. (2002) 'Pravovye problemy dogovornoi unifikatsii', *Moskovskio zhurnal mezhdunarodnogo prava,* 1(45), pp. 12–43.

Bakhin, S. (2003) 'Modelnoe pravo', *Pravovedenie,* 1, pp. 170–85.

Basedow, J. and T. Kono (2000) *Legal Aspects of Globalisation, Conflicts of Laws, Internet, Capital Markets and Insolvency in a Global Economy* (The Hague: Kluwer Law International).

Bordachev, T. and T. Romanova (2003) 'Model na vyrost: Vybor Rossii nadolgo opredelit ee otnosheniya c EC', *Rossiya v globalnoi politike,* 2, pp. 49–62.

Bressand, A. (2010) *European Integration and the Development of a European External Energy Policy in Eurasia,* Policy Paper Series, 7 (Berlin: Global Public Policy Institute).

Bretherton, C. and J. Vogler (2006) *The European Union as a Global Actor* (London: Routledge).

Brütsch, C. and D. Lehmkuhl (2007) *Law and Legalization in Transnational Relations* (London: Routledge).

Buxbaum, R.M., G. Hertig, A. Hirsch, and K.J. Hopt (eds.) (1991) *European Business Law: Legal and Economic Analyses on Integration and Harmonization* (Berlin: Walter de Gruyter).

Buxbaum, R.M. and K.J. Hopt (1988) *Legal Harmonization and the Business Enterprise* (Berlin: Walter de Gruyter) (Integration through Law Series, European University Institute, Vol. 4).

Carbonara, E. and F. Parisi (2005) *The Economics of Legal Harmonization* (Washington: George Mason University School of Law).

Backer, L.C. (ed.) (2007) *Harmonizing Law in an Era of Globalization: Convergence, Divergence, and Resistance* (Durham, NC: Carolina Academic Press).

Chernichenko, S.V. (1999) *Teoriya mezhdunarodnogo prava,* Vol. 1 (Moscow: NIMP).

Council of Ministers (1992) Directive on the indication by labelling and standard product information of the consumption of energy and other resources by household appliances. 92/75/EEC, 22 September.

Cox, K.R. (1997) *Spaces of Globalization: Reasserting the Power of the Local* (New York: Guilford).

Curtin, D.M., J.M. Smits, A. Klip, and J.A. McCahery (2006) *European Integration and Law* (Oxford: Intersentia).

Cutler, A.C. (2003) *Private Power and Global Authority* (Cambridge: Cambridge University Press).
De Fouloy, C. (1992) *Glossary of EC Terms* (London: Butterworths).
Dreyer, I. (2009) 'Comment: EU Should Use International Law to Tackle Russian Energy Relations', *Business New Europe*, 9 April.
Egan, M. (2006) 'The Single Market' in M. Cini (ed.) *European Union Politics* (Oxford: Oxford University Press).
Energy Charter Treaty (1994) http://www.encharter.org/fileadmin/user_upload/document/EN.pdf, date accessed 15 May 2011.
Entin, M. (2006) *V poiskah partnerskih otnoshenii: Rossiya I Evropeiskii Souz v 2004–2005 godah* (St. Petersburg: Rossiya-Neva).
Erixon, F. (2008) *Europe's Energy Dependency and Russia's Commercial Assertiveness*, ECIPE Policy Brief No. 07.
European Commission (2005) Green Paper 'Energy Efficiency – or Doing More With Less', COM(2005) 265 final, 22 June.
European Commission (2006a) Action Plan: 'Energy Efficiency: Realising the Potential', COM(2006) 0545 final, 19 October.
European Commission (2006b) Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy, COM(2006) 105 final, 8 March.
European Commission (2008a) Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions '20 20 by 2020 – Europe's climate change opportunity', COM(2008) 30final, 23 January.
European Commission (2008b) Communication to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions 'Energy Efficiency: Delivering the 20% Target', COM(2008) 772 final, 13 November.
European Commission (2010a) Europe 2020: A European Strategy for Smart, Sustainable and Inclusive Growth, COM(2010) 2020, 3 March.
European Commission (2010b) EU Energy in Figures 2010, Brussels, 26 January.
European Commission (2010c) EU-Russian Common Spaces Progress Report 2009, March.
European Council (2007) Presidency Conclusions, 8–9 March.
European Parliament and the Council (2000) Directive on Energy Efficiency Requirements for Ballasts for Fluorescent Lighting, 2000/55/EC, 18 September.
European Parliament and the Council (2009) Directive, Establishing a Framework for the Setting of Ecodesign Requirements for Energy-using Products, 2009/125/EC, 21 October.
European Union (EU) (1999) Common Strategy of the European Union on Russia, Cologne, 4 June.
European Union (EU) (2006) An External Policy to Serve Europe's Energy Interests, Paper from Commission/SG/HR for the European Council.
European Union (EU) (2007) Treaty of Lisbon Amending the Treaty on European Union and the Treaty Establishing the European Community, Lisbon, 13 December.
Eurostat (2010) EU – Russia Summit. EU27 Trade in Goods with Russia up by a Third in the First Nine Months of 2010.184/2010, 6 December.

Fazio, S. (2007) *The Harmonization of International Commercial Law* (The Hague: Kluwer Law International).
Finnemore, M. and S.J. Toope (2001) 'Alternatives to "Legalization": Richer Views of Law and Politics', *International Organization,* 55(3), pp. 743–58.
Gaverdovsky, A.S. (1980) *Implementatsiya norm mezhdunarodnogo prava* (Kiev: Vischa shkola).
Gavrilov, V.V. (2005) *Ponyatie i vzaimodeistvie mezhdunarodnoi i natsionalnoi pravovyh system* (Vladivostok: Izdatelstvo Dalnevostochnogo Universiteta).
Gill, S. and D. Law (1998) *The Global Political Economy – Perspectives, Problems and Policies* (Wheatsheaf: Harvester).
Gilpin, R. (2001) *Global Political Economy: Understanding the International Economic Order* (Princeton, NJ: Princeton University Press).
Goldstein, J., M. Kahler, R.O. Keohane, and A.M. Slaughter (2000) 'Special Issue: Legalization and World Politics', *International Organization,* 54(3), pp. 385–703.
Heinrich, A. (2008) 'Under the Kremlin's Thumb: Does Increased State Control in the Russian Gas Sector Endanger European Energy Security?', *Europe-Asia Studies,* 60(9), pp. 1539–74.
Isaev, D. (2005) *Osnovnye teorii garmonizatsii zakonodatelstva v protsesse formirovaniya obschih prostranst Rossiya-ES* (Moscow: RECEP).
Johnson, D. and P. Robinson (2005) 'Introduction' in D. Johnson and P. Robinson (eds.) *Perspectives on EU-Russian Relations* (London and New York: Routledge).
Kashkin, S. (2005) *Strategiya i mechanizmy garmonizatsii zakonodatelstva Rossii i Evropeiskogo Souza, kak kluchevye komponenty ih effektivhogo vzaimodeistviya v XXI veke* (Moscow: RECEP).
Keohane, R.O. and J. Nye (1977) *Power and Interdependence: World Politics in Transition* (Boston: Little, Brown).
Ku, C. (2001) *Global Governance and the Changing Face of International Law* (New Haven: ACUNS Report and Papers No. 2).
Leebron, D.W. (1996) 'Lying Down with Procrustes: An Analysis of Harmonization Claims' in J. Bhagwati and R.E. Hudec (eds.) *Fair Trade and Harmonization: Prerequisites for Free Trade?, Volume I: Economic Analysis* (Cambridge, MA: MIT Press).
Lynch, K. (2003) *The Forces of Economic Globalization – Challanges to the Regime of International Commercial Arbitration* (The Hague: Kluwer Law International).
Mamutov, V.K. (1999) 'Sblizhenie sovremennyh system pravovogo regulirovaniya hozyastvennoy deyatelnosti', *Gosudarstvo i pravo,* 1, pp. 41–51.
McGowan, F. (2008) 'Can the European Union's Market Liberalism Ensure Energy Security in a Time of "Economic Nationalism"?', *Journal of Contemporary European Studies,* 4(2), pp. 90–106.
Meessen, K.M. (2004) *Economic Law in Globalizing Markets* (The Hague: Kluwer Law International).
Mingazov, L.S. (1990) *Effektivnost normy mezhdunarodnogo prava* (Kazan: Izdatelstvo Kazanskogo universiteta).
Mironov, N.V. (1968) *Sovetskoe zakonodatelstvo i mezhdunarodnoe pravo* (Moscow: Mezhdunarodnye otnosheniya).
Mistelis, L. (2001a) 'Is Harmonisation a Necessary Evil? – The Future of Harmonisation and New Sources of International Trade Law' in I. Fletcher, L. Mistelis, and M. Cremona (eds.) *Foundations and Perspectives of International Trade Law* (London: Sweet and Maxwell).

Mistelis, L. (2001b) 'Regulatory Aspects: Globalization, Harmonization, Legal Transplants and Law Reform. Some Fundamental Observations' in R.M. Lastra (ed.). *The Reform of the International Financial Architecture* (London: Kluwer Law International).

Mullerson, R.A. (1982) *Sootnoshenie mezhdunarodnogo i natsionalnogo prava* (Moscow: Mezhdunarodnye otnosheniya).

Petrov, R. (2008) 'Exporting the Acquis Communautaire into the Legal Systems of Third Countries', *European Foreign Affairs Review,* 13(1), pp. 33–52.

Petrov, R. and C. Hillion (2006) 'Sblizhenie zakonodatelstva v kontexte partnerstva mezhdu Evropeiskim Souzom i stranami Sodruzhestva Nezavisimyh Gosudarstv' in O. Potemkina (ed.) *Rasshirenie Evropeiskogo Souza i Rossiya* (Moscow: Delovaya Literatura).

Prange-Gstohl, H. (2009) 'Enlarging the EU's Internal Energy Market: Why would Third Countries Accept EU Rule Export?', *Energy Policy,* 37, pp. 5296–5303.

Rhodes, R.A.W. (1997) *Understanding Governance: Policy Networks, Governance Reflexivity and Accountability* (Buckingham: Open University Press).

Romanova, T. (2003) *Stanovlenie Evropeiskogo Souza kak Mezhdunarodnogo Actora: Na Primere Investitsionnoi Deyatelnosti v Energeticheskom Sotrudnichestve s Rossiei v 1994–2001 godah* (St. Petersburg: St. Petersburg State University).

Romanova, T. (2005) 'European Union-Russian Legal Approximation as the Basis for the Common European Economic Space: Opportunities and Barriers' in K. Khudoley (ed.) *European Union and Russia: 10 Years after Signing of Partnership and Co-operation Agreement* (St. Petersburg: St. Petersburg State University, European Studies Library No. 19).

Romanova, T. (2008) 'The Russian Perspective on the Energy Dialogue', *Journal of Contemporary European Studies,* 16(2), pp. 209–20.

Romanova, T. (2009) 'The Political Economy of EU-Russian Energy-relations' in G. Fermann (ed.) *Political Economy of Energy in Europe: Forces of Fragmentation and Integration* (Berlin: Berliner Wissenschafts-Verlag).

Russian Federation (1999) Mid-term Strategy for Developing Relations with the EU for 2000–2010.

Russian Federation (2003) Energeticheskaya strategiya Rossii do 2020 goda, Government Decree No. 1234-r, 28 August.

Russian Federation (2004) Federal Law on the Ratification of the Kyoto Protocol to the UNFCCC. Federalnyi zakon 'O ratifikatsii Kiotskogo Protokola k ramochnoi konventsii Organizatsii ob'edinennyh natsii ob izmenenii klimata', No. 128-FZ, 4 November.

Russian Federation (2009a) Energy Strategy 2030, Government Decree No. 1715-r, 13 November.

Russian Federation (2009b) Federal Law on Energy Conservation and Improvement of Energy Efficiency. No. 261-FZ.Russian Federation (2009b) Federalnyi zakon 'Ob energosberezhenii i povshenii energeticheskoi effektivnosti i o vnesenii izmenenii v otdelnye zakonodatelnye akty Rossiiskoi Federatsii', No. 261-FZ, 27 November.

Russian Federation (2009c) Government Enactment on Measures to Stimulate Reduction of Gas Flaring Emissions and Pollution. NoRussian Federation (2009c) Postanovlenie Pravitelstva Rossiiskoi Federatsii 'O merah po stimulirovaniu sokrascheniya zagryazneniya atmosphernogo vozduha produktami

szhiganiya poputnogo neftyanogo gaza na fakelnyh ustanovkah', No. 7, 8 January.
Russian Federation (2009d) Presidential Decree on the Climate Doctrine of the Russian Federation Climaticheskaya doctrina Rossiiskoi Federatsii, Presidentskii ukaz, No. 861-rp, 17 December.
Russian Federation and the European Union (1994) Partnership and Cooperation Agreement.
Russian Federation and the European Union (2000) EU-Russian Energy Dialogue, Synthesis Report. Presented by Russian Vice-Prime Minister Victor Khristenko and European Commission Director-General François Lamoureux.
Russian Federation and the European Union (2005) Roadmap for the Common Economic Space, 8 May.
Russian Federation and the European Union (2010) Joint Report EU-Russian Energy Dialogue 2000–2010: Opportunities for Our Future Energy Partnership, November.
Scholte, J.A. (2005) *Globalization: A Critical Introduction* (Houndmills: Palgrave Macmillan).
Slaughter, A.-M. (2004) *A New World Order* (Princeton, NJ: Princeton University Press).
Stone, D. (2004) 'Transfer gents and Global Networs in the "Transnationalisation" of Policy', *Journal of European Public Policy*, 11(3), pp. 545–66.
Strange, S. (1994) *States and Markets* (London: Pinter).
Strange, S. (1996) *The Retreat of the State: The Difusion of Power in the World Economy* (Cambridge: Cambridge University Press).
Sun, J.M. and J. Pelkmans (1995) 'Regulatory Competition in the Internal Market', *Journal of Common Market Studies*, 33(1), pp. 67–89.
Usenko, E.T. (1995) 'Sootnoshenie i vzaimodeistvie mezhdunarodnogo i natsionalnogo prava i rossiiskaya konstitutsiya', *Moskovskii zhurnal mezhdunarodnogo prava*, 2, pp. 13–28.
Van Der Meulen, E.F. (2009) 'Gas Supply and EU-Russia Relations', *Europe-Asia Studies*, 61(5), pp. 833–56.
Van Gerven, W. (2004) 'Harmonization of Private Law: Do We Need It', *Common Market Law Review,* 41, pp. 505–32.
Vilkova, N.G. (1998) 'Metody unifikatsii prava mezhdunarodnyh kommercheskih kontraktov', *Gosudarstvo i pravo,* 7, pp. 73–78.
Wiener, J. (1999) *Globalization and Harmonization of Law* (London: Pinter).
Wilets, J.D. (2009) A Unified Theory of International Law, the State, and the Individual: Transnational Legal Harmonization in the Context of Economic and Legal Globalization, http://works.bepress.com/james_wilets/1, date accessed 15 May 2011.
Yaremenko, V. (2007) 'Aspekty soglasovaniya norm mezhdunarodnogo i natsionalnogo prava, a takzhe pravovyh system Rossiiskoi Federatsii I Evropeiskogo Souza', *Journal nauchnyh publikatsii aspirantov i doktorantov,* No. 3, http://www.jurnal.org/articles/2007/uri3.html, date accessed 15 May 2011.
Zimnenko, B.L. (2005) 'Kompleksnaya norma kak element pravovoi systemy Rossii', *Mezhdunarodnoe publichnoe i chastnoe pravo,* 6, pp. 31–34.
Zimnenko, B.L. (2006) 'Kompleksnaya norma kak element pravovoi systemy Rossii', *Mezhdunarodnoe publichnoe i chastnoe pravo,* 1, pp. 34–38.

2

Tensions between the Liberalist and Statist Approaches to Energy Trade Governance: The Case of Gas Dual Pricing

Daniel Behn and Vitaliy Pogoretskyy

1. Introduction

This chapter explores the seemingly divergent legal principles that influence and guide the current energy relationship between Europe and Russia. This relationship is indicative of the co-dependency that has emerged in recent decades between resource-rich and resource-dependent states. In essence, it appears that resource-dependent states tend to promote ideals of market liberalization, while resource-rich states often pursue policies involving state domination over their natural resource sector.

In what can be labelled as the European approach of liberalism and the Russian approach of statism, the case of gas dual pricing provides an important example of how these differing aims and outlooks can create tensions. In the bilateral negotiations between Russia and the EU on the accession of Russia to the World Trade Organization (WTO), the EU has pushed for the liberalization of Russia's domestic energy market and the relaxation of government control over natural resources. Russia, however, has opposed these endeavours, regarding national energy strategy as a tool for boosting its economic development and regaining the title of a global superpower. In its WTO accession bid, Russia has taken the view that its national energy policy is fully consistent with WTO rules.

These differing approaches to energy strategy play a fundamental role in energy policy choices. Since these policy choices are the combined product of political, economic, legal and social considerations, an isolated analysis of the legal aspects pertaining to Europe-Russia energy

relationship will likely result in a skewed understanding of the reality. By situating the legal issues within their larger political economy, a clearer analysis of the legal choices may be achieved. This is essential to our approach. We propose that the development of legal rules is influenced and driven by these underlying political economy considerations, considerations that take the form of guiding principles of European liberalism and Russian statism.

From a legal perspective, it is our conclusion that there is no clear legal conflict between the principles of free trade, as embodied in WTO law and driven by the liberalist approach, and the principle of the permanent sovereignty over natural resources (PSNR), as embodied in United Nations (UN) resolutions on the PSNR and based on the statist approach.[1] One may ask then, and lawyers often do, what is the problem here? If liberalist and statist approaches to energy governance can be reconciled through the legal rules as they are currently available, why is there still an observable and palpable tension in the energy relationship between Europe and Russia? It is our claim that the political economy of energy dynamics complicates the legal relationship in the Europe-Russia context. And that it is these differing liberalist and statist approaches that form the basis of this tension and help explain why the reconciliation of legal rules will not, by themselves, foster greater harmony and cooperation between Europe and Russia.

Global economic integration in the twenty-first century has been facilitated by an increasing degree of legalization. This legalization has led to a proliferation of supra-national legal structures that both constrain or enhance – depending on one's outlook – cross-border trade. While these legal structures flourish in the context of trade in most kinds of goods and services, the legalization of energy governance at the international level has traditionally been inward-looking and based on the principle of PSNR. Generally speaking, this means that rules governing energy trade at the international level have not crystallized as specific, clear rules that can predictably guide behaviour. Consequently, when the domestic principles of resource sovereignty are determined to trump other international legal obligations relating to trade liberalization (usually as a unilateral decision by the resource-rich state), tension arises as to how this relationship is to be reconciled. This tension is often exhibited as a level of frustration among liberalized economies in their inability to make the decisions of resource-rich states conform to the general principles of the international trading system.

The lack of sophisticated, specific legal rules on the trans-boundary trade in energy and natural resources appears to be the result of this very

inherent tension between the liberalist model and the statist approach to international trade in natural resources and natural resources-based products. For a resource-endowed state, such as Russia, trade liberalization must not come at the cost of sovereign control over its natural resource sector, especially when this sector is the primary source of state revenue (see Ministry of Energy of the Russian Federation 2003). In fact, from an economic perspective, Russia is not unique in this outlook, as most resource-endowed countries view their path to economic prosperity directly tied to the unrestricted right to exploitation of their domestic resources.

Gas dual pricing – the main focus of this chapter – refers to a pricing policy that allows a country to set distinct pricing schemes for gas that is consumed in the domestic market and gas that is exported to third countries. With no clear rules of transnational trade governance that deal with this issue explicitly, Russian dual pricing policies have been a point of contention, specifically in Russia's accession bid to the WTO, and more generally as a symptom of differing agendas between Russia and Europe. In that, gas dual pricing provides an enlightening example of how the analysis of legal rules cannot always resolve conflicting political economy principles. In this particular case, an analysis of the WTO rules on subsidies reveals that as soon as Russia becomes the WTO member, its gas pricing policies will be found consistent with WTO law. However, this does not foreclose the reality that there remains an inherent tension in energy trade issues between Europe and Russia – one that is based on the relationship's complex non-legal aspects. It is these political economy issues that placed dual pricing high on the European agenda in its negotiations with Russia on WTO accession. And these are the same issues – as opposed to legal ones – that have also largely resolved the gas dual pricing problem, with both Europe and the US dropping it from their negotiation agenda. However, the problem of gas dual pricing remains relevant for two reasons: (1) it is a complex matter that invokes real and important interpretive legal problems in the analysis of WTO law and whose analysis can provide insight for other resource-rich countries with dual pricing policies in their bids to join the WTO; and (2) it provides an apt illustration of the political-legal nexus in energy and is demonstrative of the role that political economy issues play in legal outcomes.

This chapter proceeds in four sections. Section 2 will look at dual pricing in the context of Europe-Russia energy relations. This section explores the liberalist and statist approach to trade governance from an abstract perspective. The third section then provides specific institutions

and principles that embody these differences in outlook. This section looks at how principles of WTO law interact with the principle of PSNR and whether or not there is a conflict in the operation of these principles in relation to energy governance. Section 4 provides a legal analysis on the compatibility and consistency of dual pricing practices with WTO law. The final section draws implications about the liberalist-statist dichotomy and its future relevance in understanding the energy relationship between Europe and Russia.

2. Dual pricing and the Europe-Russia energy relationship

The energy relationship between Europe and Russia is complex and is rife with potential conflict. At the heart of this relationship is a co-dependent reliance on Russian natural gas supplies (Noel 2008). Russia is endowed with the world's largest known reserves of natural gas (British Petroleum 2011). It is a major gas-exporting country, and Europe is a major importer of Russian gas. This reliance on Russian gas supplies has led European countries to become increasingly alarmed at the potential energy security issues such reliance creates (European Commission 2008; Monaghan 2003). This problem is exacerbated by seemingly divergent agendas relating to market and trade liberalization. The EU has for decades been at the forefront of supra-national governance relating to the creation of common markets and reductions in internal trade barriers, particularly in the area of energy (European Parliament and the Council 2009). Russia, on the other hand, has pursued policies focusing on the state's monopolization of its natural resource sector (Pirani 2009). This is a position that Russia has reiterated in its recent proposal for the Draft Convention on Ensuring Energy Security (Draft Convention) (Draft Convention 2011; Nappert et al. 2011). These resource utilization policies have played a large role in Russia's delayed entrance into the WTO. However, Russia's accession process to the WTO has just been finalized, and its full accession is expected in the close future.

One of the impediments to Russia's WTO accession was related to its gas pricing policies (Tarr 2009). Labelled as gas dual pricing, Russia has pursued policies that price natural gas exports distinctly from prices for domestic use (Tarr 2009). Opponents of Russian dual pricing, such as the EU and the US, hold that such a practice can provide energy so inexpensively to the industrial and manufacturing sector that they can sell goods in export markets at prices significantly lower than that of their competitors from countries that do not suppress the domestic price of energy inputs (Cooper 2006: 10–11). Likewise, domestic

products that have benefited from cheap energy inputs or suppressed domestic gas prices may have the ability to make like goods imported into that market less competitive (Dudek et al. 2006: 1668–69). However, and as discussed in more detail below, when a resource-endowed country like Russia is merely using its natural comparative advantage in a non-discriminatory manner with a view to promoting the development of its domestic industry, the practice of dual pricing would be in line with WTO rules. In fact, the practice of dual pricing in Russia has been shown to be implemented in a non-discriminatory manner with limited trade distorting effects – and thus was dropped from the EU agenda on Russia's WTO accession bid (Tarr 2008). Yet, and though Russia decided to raise its domestic prices in parity with export costs beginning in 2011, dual pricing still persists in Russia (at least in the short term); and its practice is demonstrative of the underlying political economy considerations that ultimately drive decisions about whether such a practice will continue to be pursued or not. The dual pricing in Russia is a good example of how the legal aspects tend to get intertwined with the political economic aspects. For example, Russia may have decided to bring its pricing practice into parity with exports for internal economic reasons relating to its long-term investment strategy. But at the same time, a feeling that dual pricing was WTO-consistent has provided Russia with a strong foothold in maintaining the legitimacy of the practice in the WTO accession negotiations with the US and the EU. In fact, Russia's recent Draft Convention explicitly suggests that Parties acknowledge that energy dual pricing does not contradict the provisions of the WTO (Draft Convention, Article IV.3(5) 2011; Nappert et al. 2011). In the context of this paper, the manner in which the dual pricing issue in Russia has been resolved is as important and telling about the dynamic European-Russian relationship as would be if the practice remained unresolved.

In the case of Russia, resource sovereignty has been pursued in the last decade as the primary policy for economic development and national security (Balzer 2005: 210). In his 1999 Ph.D. thesis, Vladimir Putin laid out the Russian strategy for regaining its title as a global superpower (Putin 1999: 3–9). His proposal, which happens to closely mirror the current reality in Russia, calls for state monopolization of its natural resource sector as the primary means of building a strong, central state. This monopolization and tight state supervision over the natural gas sector, primarily through the state-controlled enterprise Gazprom, has permitted Russia to set pricing policies on its natural gas endowment in a manner not fully consistent with the economic concept of the

market, but rather in line with natural resource pricing policies compatible with what Russia believes to be in its national interest (see also Putin 1999: 7). However, the strategy of a state to set domestic and export prices unilaterally can hardly be reconciled with the liberalist approach to international trade and the principles of market economy (Jackson 1969; WTO 2010). As such, natural resource monopolies generally, and state-controlled natural resource monopolies specifically, are considered to be antithetical to the achievement of liberalized global trading regimes. These are the main reasons why most industrialized, as well as some developing countries, have abolished energy dual pricing as being inconsistent with their new liberalized energy and competition policies (Pogoretskyy 2011: 181; Selivanova 2007). Russia has gone the opposite direction, however. It has rejected calls for complete liberalization of its markets – especially in the area of natural gas (Tsygankov 2005: 132).

Much to their chagrin, the EU, and those countries that have embraced the logic of the General Agreement on Tariffs and Trade (GATT) and the WTO, hold that liberalized trade and free markets are the best policy for economic development and global integration. In addition, they argue that trade-distorting practices, such as dual pricing, are detrimental to the environment. They accelerate the exhaustion of natural resources, stimulate the excessive consumption of energy, and contribute to global climate change (Dudek et al. 2006; Pogoretskyy 2011). Yet, while the Russian policy of state-controlled natural resource domination does not mesh cleanly with EU energy liberalization policies, it is substantively similar to the economic policies pursued by EU member countries during their periods of industrialization. Therefore, a practice such as dual pricing is actually just part of a smaller discussion encapsulated in the broader trade policy debate currently being hashed out under the Doha Development Round between developing and developed countries (Pogoretskyy 2011). While developing countries argue that absolute control over their resource endowment is critical for their economic development, developed countries argue that opening borders and liberalizing trade (including trade in their resources) is a better means of achieving economic growth. Russia has practised a system of energy dual pricing from 1990 to the present, providing natural gas domestically at prices well below the export market price (Dudek et al. 2004). Natural gas is sold at suppressed prices equally to all sectors of the economy (Dudek et al. 2004).

Dual pricing practices in Russia are thought to have a number of positive developmental benefits; they have been used to foster economic

growth, while at the same time providing inexpensive energy (for cooking, heating, and electricity) to the poorest strata of society (Behn 2007; UNEP 2002: 6). Nevertheless, Russia's energy pricing policy appears to currently bring about more drawbacks than benefits. In Russia, gas-consuming industries are not just subsidized; at some stage they were subsidized at prices even below the long-term marginal cost of production (Tarr and Thomson 2004: 1173), that is, the Russian government was providing natural gas so inexpensively that it had to directly subsidize the natural gas industry in order to sustain the practice. The World Bank has proposed that at a minimum, Russia needs to raise domestic natural gas prices to the long-term marginal cost of production level (Tarr and Thomson 2004: 1173). Following this suggestion, Russia has been increasing the domestic price of natural gas in recent years in consideration of its marginal costs of production. Moreover, recent developments show that Gazprom's internal policies are now embracing a strategy that will continue to increase natural gas prices, whereby domestic prices will reach parity with export prices (excluding transport costs) by 2014 (The Moscow Times 2010). As stated, this strategy does not appear to be the result of external pressure, but rather reflects internal decision making, as Russia realizes that long-term costs of major capital investments (pipelines, etc.) will require a rise in domestic gas prices (The Moscow Times 2010).

Overall, the Europe-Russia energy relationship is governed by a co-dependent reliance on Russian gas supplies. This reliance is placed within the context of substantially distinct energy policies in the EU and Russia. The difference in these policies is the result of a number of complex issues that relate to each political entity's place in history, stage of development, and resource endowments. The EU would like to see Russia embrace energy policies that are driven by market forces, whereby natural gas supplies to Europe would be the product of competitive, open markets. In addition, the EU is concerned about the distortive effect of energy dual pricing in Russia on the Russia-EU trade in energy-intensive products. Russia, on the other hand, believes that the market liberalization of its resource sector would constrain its economic development and prevent it from re-emerging as a global superpower. And as such, tension persists.

3. Statist versus liberalist: PSNR and the WTO

Since the 1950s – and in line with the statist approach – developing countries have repeatedly reiterated that a state retains full sovereignty

over the use of its natural resources (Schrijver 1995: 24). United Nations (UN) General Assembly (GA) Resolution 1803 on the principle of PSNR expressly recognizes that the 'right of peoples and nations to permanent sovereignty over their natural wealth and resources must be exercised in the interest of their national development and of the well-being of the people of the State concerned' (UN GA 1962). This concept developed at the end of the colonial period as a means for newly recognized states to shed themselves of not only their political oppression but economic oppression as well. From a public international law perspective, the result has been the development of a general principle of international law: resource-endowed states have the sovereign right to the exclusive control over decisions on how their natural resource endowments are exploited. In addition to resolutions and declarations made by the UN GA and Security Council, the principle of PSNR has also been acknowledged in the treaty law. For example, in the Energy Charter Treaty (ECT) of 1994, Article 18 provides that '[t]he Contracting Parties recognize state sovereignty and sovereign rights over energy resources. They reaffirm that these must be exercised in accordance with and subject to the rules of international law' (ECT 1995).

Despite these iterations of the principle of PSNR by developing and transitional economies over the past 50 years, it does not mean that an energy-endowed state, like Russia, can always apply this principle in an absolute manner. The energy-pricing example in Russia provides a good illustration where the principle of PSNR is constrained by a whole host of additional considerations – both internal and external to Russia itself. Limitations on the principle of PSNR may for instance arise if the state decides to contract out from general rules of international law by entering into treaties (Pauwelyn 2003). The latter may limit the application of general public international law, which would reduce a sovereign state's ability to pursue its domestic energy pricing policies in accordance with the principle of PSNR. One example of this type of treaty is the Agreement Establishing the WTO (WTO Agreement) (AB Report 1996: 15; Pauwelyn 2003). This is because the WTO regime constitutes a *lex specialis* that provides specific rules that will prevail over more general rules of international law: *lex generalis* (AB Report 1996: 15; Pauwelyn 2003). Yet, these restrictions are limited to the specific rules in the treaty. In the WTO there are a few rules – mostly relating to state-trading enterprises (STEs), subsidies, and anti-dumping measures – that have the potential to place some limitations on a country's absolute freedom to exploit its natural resources. In the next section, we explore these potential limitations .

4. Dual pricing in Russia and its consistency with WTO law

When addressing the issue of the consistency of energy dual pricing with WTO law, the most relevant rules in this respect appear to be the GATT Article XVII (rules on STEs), WTO Subsidies, and Anti-Dumping rules. This category of rules has constituted the major basis for anti-dual pricing claims made by net energy-importing countries vis-à-vis Russia as well as other energy-endowed developing countries. In a similar context, some scholars have also referred to GATT Article III:9 (a soft-law provision recognizing that internal maximum price control measures can negatively affect exporting countries), Article XI:1 (the General Elimination of Quantitative Restrictions), and the Agreement on Trade-Related Investment Measures (TRIMs Agreement) (affecting the local content requirements for foreign investors) (Behn 2007; Selivanova 2008; TRIMs Agreement 1994; Zarrilli 2005). Regarding Article XI:1, it has been argued that energy dual pricing has a *de facto* effect equivalent to an imposition of export restrictions (Selivanova 2008).

Nevertheless, the latter category of rules appears to be of little relevance to gas dual pricing in Russia. For instance, the GATT Article III:9 does not establish any hard-law obligation and has a merely declaratory nature. Article XI:1 appears to prohibit the export restrictions only on those natural resources that have been already extracted from the ground and does not cover hypothetical restrictions on trade in resources that are still *in situ* (Desta 2010: 177–92). In addition, considering that in practice exports of natural gas from Russia to the EU are executed through long-term agreements, energy dual pricing in Russia cannot have any impact on the volumes of gas export to this market. Regarding the TRIMs Agreement, the Russian government has not been accused of tying its low-cost gas to a local content requirement. On the basis of the above considerations, this section will therefore analyse the consistency of gas dual pricing in Russia with regard to GATT Article XVII, WTO Subsidies, and Anti-Dumping rules. The focus, however, will be aimed at dual pricing consistency with WTO Anti-Dumping rules, as a large amount of previous scholarship has concluded that energy dual pricing in Russia does not constitute a subsidy incompatible with WTO law and does not trigger GATT Article XVII (Ripinsky 2004; Selivanova 2008).

4.1 GATT Article XVII on State Trading Enterprises

Article XVII:1(a) provides that if a Member establishes or maintains an STE or grants to any enterprise exclusive or special privileges, such

an enterprise, in its purchases or sales involving imports or exports, must act in a manner consistent with the general principle of non-discrimination. The following provision, Article XVII:1(b), clarifies that the obligation established by Article XVII:1(a) shall be understood to require that STEs or the enterprises granted exclusive or special privileges must make any purchases or sales involving imports or exports solely in accordance with commercial considerations. It should be noted that the latter requirement does not constitute a separate obligation but merely defines the obligation set out in Article XVII:1(a) (AB Report 2004a, para. 147; GATT Panel Report 1984, para. 5.16).

The key questions that have been addressed when deciding on the compatibility of gas dual pricing in Russia with the GATT Article XVII:1 are whether Gazprom qualifies as an STE or an enterprise granted exclusive or special privileges and whether its different pricing for domestic and foreign consumers amounts to unlawful discrimination. Concerning the first question, it should be noted from the outset that WTO law does not define either the terms 'STE' or 'an enterprise granted exclusive or special privileges' (GATT 1947). It provides only a limited guidance in the WTO Background Paper on STEs and the Uruguay Round Understanding on the Interpretation of GATT Article XVII regarding relevant criteria for making decisions (WTO 1994; 1995, para. 195). For instance, although the Background Paper on STEs states that the degree of the government's ownership and the ability to exercise control over a given enterprise should be those necessary criteria for determining whether it is an STE or not, this paper does not provide specific determinants or establish a percentage of necessary control. Considering that Gazprom exercises control over the gas pipeline network and major processing plants in Russia, as well as negotiates and administers bilateral contracts for the supply of gas from Russia to Europe and the Commonwealth of Independent States (CIS), the mainstream view is that it possesses exclusive or special privileges and constitutes an STE in the sense of GATT Article XVII (Selivanova 2008). It should be noted that in 2003 during the accession negotiations of Russia to the WTO, Russia's representatives acknowledged the status of Gazprom as an STE, although later they reversed their position (WTO Draft Report 2003; 2004, para. 493).

Concerning the second question, it is effectively about whether the obligation of 'non-discrimination' in Article XVII:1 covers only the most favoured nation (MFN) provisions or both the MFN and the national treatment (NT) requirement. In Korea – Various Measures on Beef, the Panel stated that 'general principle of non-discrimination [in GATT

Article XVII:1(a)] includes at least the provisions of Articles I and III of GATT [such as both the MFN and national treatment requirement]' (Panel Report 2001, para. 753). It should be noted, however, that this interpretation of Article XVII:1(a) does not reflect the language of the provision itself and appears to contradict its negotiating history.

The wording of Article XVII:1, when establishing the obligation for STEs, and the enterprises granted exclusive or special privileges to comply with the principle of non-discrimination, refers only to purchases or sales involving either 'imports or exports' without addressing the issue of domestic sales. Moreover, as the negotiating history of Article XVII:1(a) suggests, this provision intended to cover only the MFN and not the national treatment obligation (Selivanova 2008: 104). In the light of these arguments, the very general interpretation of Article XVII:1 given in Korea – Various Measures on Beef cannot provide sufficient means to read the national treatment requirement into this provision. Regrettably, this point was not appealed. Therefore, using different prices for domestic and foreign consumers does not appear to constitute discrimination in the sense of GATT Article XVII:1(a).

The last issue to be clarified in relation to GATT Article XVII:1 is that the practice of Gazprom to charge different prices in different foreign markets is also in line with WTO law. The Ad note to GATT Article XVII:1 (Ad Article XVII) establishes that GATT Article XVII:1 does not preclude the STEs of WTO Members from charging different prices in different markets, provided such different prices are charged for commercial reasons and to meet conditions of supply and demand in export markets. Consequently, gas dual pricing in Russia is compatible with GATT Article XVII:1.

4.2 Subsidies rules

In the WTO, the rules on subsidies are set out in the Agreement on Subsidies and Countervailing Measures (ASCM) (ASCM 1994). This Agreement controls the use of specific subsidies and regulates the actions that WTO Members can take to counteract the effects of another Member's trade-distorting subsidies (Van den Bossche 2005: 550). According to the ASCM, three elements must be present for a subsidy to exist: (1) a financial contribution by a government or any public body within the territory of a WTO Member, or a government or a public body entrusts or directs a private body to carry out this function; (2) benefit resulting from this financial contribution; and (3) specificity (that is a subsidy is provided only to specific industries) (ASCM 1994, Art. 1).

The ASCM tackles two main categories of subsidies: (1) the so-called prohibited subsidies, which are *de jure* or *de facto* tied to export performance or are contingent upon the use of domestic over imported goods (such as a local content requirement); and (2) the so-called actionable subsidies, which cause adverse effect to the interests of other WTO Members either in the form of injury to their domestic industry, or nullification or impairment of their benefits accruing due to their membership in the WTO, or a serious prejudice to their interests (ASCM 1994, Art. 3, 5). The former category of subsidies is considered to be specific automatically and when the financial contribution, benefit, and the contingency upon export performance or local content requirement are proven, they are regarded as WTO-inconsistent (ASCM 1994, Art. 2.3, 3). The latter category of subsidies requires the proof of specificity (ASCM 1994, Art. 1.2). For the purposes of the analysis of gas dual pricing in Russia, the key questions that have puzzled trade negotiators and scholars are whether the provision of low-priced gas inputs by Gazprom to domestic consumers, firstly, confers the benefit, and, secondly whether it confers that on the specific recipients in the sense of the ASCM? This analysis concerns the category of 'actionable subsidies', since the use of 'prohibited subsidies' does not appear to be an issue in Russia.

The main difficulty in proving benefit lies in the absence of a commonly accepted benchmark applicable to trade in energy resources. In WTO jurisprudence, the panels and the Appellate Body (AB) clarified that the notion of benefit implies that after the financial contribution occurred the recipient receives an advantage relative to applicable commercial benchmarks reflecting its situation on the marketplace before and after the financial contribution, and hence it becomes 'better off' (AB Report 1999, para. 157). In the case of gas trade, however, it remains unclear whether the international market or the domestic market in Russia should be used for the calculation of benefit conferred on Russian domestic consumers. These two marketplaces obviously imply the use of different gas prices as benchmarks. Whereas in the first case, the benefit will be derived from the difference between international and Russian domestic gas prices, in the second case, the benefit does not seem to exist at all.

It should be noted that although, in principle, WTO jurisprudence allows referring to other benchmarks than domestic market (for instance, international market prices), when prices are distorted by the government, in the case of natural gas the alternative reference points appear to be limited (AB Report 2004b, para. 101; 2011, para. 438).

Currently, an international market for natural gas does not exist; and natural gas is mainly traded on a regional level with varying prices between different regions (Energy Charter Secretariat 2007). It is noteworthy also that even if benchmarks other than domestic gas prices in Russia are established for calculating benefits conferred on Russia's energy-intensive industries, the WTO law requires this benchmark to reflect the prevailing market conditions in Russia and to take into account any relevant comparative advantage of Russia in regard to gas production (AB Report 2004b, para. 108–109).

Another stumbling block in proving that gas dual pricing in Russia allegedly constitutes a WTO-inconsistent subsidy is the lack of specificity. Under the ASCM, a specific actionable subsidy can be provided in a *de jure* (such as through a legislative or regulative act) or *de facto* form (such as an actually specific subsidy). Regarding the latter form, the ASCM Article 2.1(c) reads: '[i]f, notwithstanding any appearance of non-specificity . . . there are reasons to believe that the subsidy may in fact be specific, other factors may be considered' (ASCM 1994, Art. 2.1(C)). According to the ASCM, these factors include (1) the use of a subsidy programme by a limited number of certain enterprises; (2) predominant use of a subsidy by certain enterprises; (3) the granting of disproportionately large amounts of subsidy to certain enterprises; and (4) the manner in which discretion has been exercised by the granting authority in the decision to grant the subsidy (ASCM 1994, Art. 2.1(C)).

The most likely cases when gas dual pricing could constitute a *de facto* specific actionable subsidy in Russia would be either where a government deliberately provides a disguised advantage to certain energy-intensive enterprises or industries, or if there is only one or a few predominant users of a gas input within Russia. However, so far, neither of these two cases, that is, of *de facto* specificity or of a *de jure* specific subsidy have been proven to exist. In Russia, there is no discrimination regarding the access to energy inputs at reduced domestic rates between foreign and Russian companies, which equally benefit from national dual pricing policy (Selivanova 2008). Consequently, gas dual pricing in Russia appears to be in line with the ASCM, at least on the face of it.

4.3 Anti-Dumping rules

Regardless of whether gas dual pricing is considered to be consistent with WTO rules, or not, the European Commission (EC) has regarded it as a trade distortive practice, affecting the competition in the EU market between gas-intensive products from Russia and local producers

and allegedly resulting in input dumping. Taking this position, the EC has levied anti-dumping duties on imports of energy-intensive products from Russia (such as petro-chemical products and steel) to offset the effect of gas dual pricing in Russia on their prices in the EU market. These measures have been based on the adjustment to the Russian exporters' gas costs by using the so-called market price in a range of surrogate countries, including the EU itself. Because of essential economic differences between the surrogate countries and Russia, such practices have systematically yielded the determination of high dumping margins and consequent losses for the Russian economy, estimated in hundreds of millions of Euros annually (Pogoretskyy 2009: 313).

In legal terms, input dumping refers to a situation where inputs, including gas inputs used in manufacturing an exported product, are purchased internationally or domestically at dumped or below-cost prices, regardless of whether the end product is exported at dumped prices or not (Pogoretskyy 2009: 313). In the context of gas dual pricing, the discipline of input dumping overlaps with the discipline of subsidies, which allows analysing dual pricing from both perspectives and apply to a product either an anti-dumping or an anti-subsidy remedy. In the WTO, the concept of dumping and anti-dumping rules are covered by the Anti-Dumping Agreement (ADA) (ADA 1994).

In the ADA, dumping is defined as the introduction of a product into the commerce of another country at less than its normal value (such as the price of a product in the exporter country in the ordinary course of trade) (ADA 1994, Art. 2). However, if the investigating authority has grounds to believe that the price of a product in the exporter country was formed not in the ordinary course of trade (such as if it were affected by the government's intervention, or gas inputs were sold below costs or a market price), then it can refer only to the following two alternative solutions for determining the product's normal value (Pogoretskyy 2009: 313). According to the ADA Article 2.2, in this case dumping must be determined either by comparison with a comparable price of the like product when exported to an appropriate third country, provided that this price is representative, or with the production costs in the country of origin (such as Russia) plus a reasonable amount for selling, general, and administrative costs and for profits (the method of 'constructed normal value') (ADA, Art. 2 1994).

Despite the above strict rules and the exhaustive benchmarks provided by the ADA for determining dumping, the EC in the case of imports from Russia of energy-intensive products has regularly referred to the so-called non-market economy technique, which is allowed under

Article 2.7 of the Council Regulation No. 384/96 and appears to be based on Article 2.7 of the ADA (European Parliament and the Council 1996; Pogoretskyy 2009: 313). The latter provision provides that the rules of the ADA Article 2 (Determination of Dumping) are without prejudice to the Ad Note to GATT Article VI, which, in its turn, sets out that in the case of imports from a country that has a complete or substantially complete monopoly of its trade and where all domestic prices are fixed by the state, the importing Members in the determination of dumping may deviate from a strict comparison with domestic prices (GATT 1947).

The EC has regarded the above provision as referring to a non-market economy environment, where domestic energy prices cannot represent the normal value of a product and therefore must be disregarded for the purposes of dumping determination (AB Report 2011, para. 541–543). On the basis of the above rules, the EC has substituted gas costs of Russian exporters for an average price of Russian gas when sold for export at the German/Czech border (the Waidhaus hub), net of transport costs, which is in effect a surrogate country method (Pogoretskyy 2009: 313). This has led to a systematic finding of dumping in the EU anti-dumping investigations against imports of energy-intensive products from Russia, due to a significant difference between gas prices in Russia and at the Waidhaus hub (Pogoretskyy 2009: 313).

The 'non-market economy' anti-dumping methodology of the EC has faced a lot of criticism in developing energy-endowed countries, which believe that this approach encroaches on their permanent sovereignty over domestic natural resources and is not in line with the ADA requirements. This appears to be true. The Ad Note to the GATT Article VI is outdated and cannot disable anymore the requirements of the ADA that only two possible benchmarks are used for the determination of dumping, excluding the 'surrogate technique' applied by the EC from the permitted anti-dumping instruments. It has to be recalled that this provision was introduced in the mid-50s of the twentieth century to integrate the so-called state-trading countries into the GATT market economy system (Polouektov 2002: 1). Currently, it is hardly possible to find any country that has complete or substantially complete monopoly of its trade and where all domestic prices are fixed by the state, with the few exceptions of self-isolated countries, such as North Korea. In addition, as far as Russia is concerned, the EU has recognized it as a market economy, which makes it politically inconsistent and WTO-illegal for the EU institutions to impose on Russian exporters of energy-intensive products anti-dumping duties based on a non-market economy methodology (Pogoretskyy 2009: 313).

5. Implications and conclusions

This chapter has analysed the political and legal tensions that exist between the liberalist approach to international trade driven by multilateral and regional trade arrangements on the one hand and the statist approach to international trade premised on the principle of PSNR on the other, for the case of energy relationships between Europe and Russia. The inherent conflict between both principles involves different agendas, related to environment and climate change, power politics, economic development, and trade in energy-intensive products. The key issue in the Europe-Russia energy relationship appears to be a co-dependent reliance on Russia's natural gas supply, which feeds the EU industrial sector, but at the same time, distorts trade by providing cheap energy inputs in Russia that increase the competitiveness of Russian producers of energy-intensive products vis-à-vis their EU competitors. The latter issue emphasizes the difference in outlook between the liberalist and the statist approaches, and demonstrates its critical relevance to the WTO agenda. The latter observation is particularly relevant to the future of the energy relationship between Europe and Russia, as it vividly demonstrates the role that political economic considerations play in the interpretation of legal requirements. This is because, as our chapter has attempted to articulate, the underlying legal principles that shape legal obligations in the context of Europe-Russia energy relations are based not on legal but on political economic considerations, that is those non-legal aspects that influence and motivate the way that legal obligations are formulated.

In terms of international law and the development of integrated global markets, the interaction of the general principle of PSNR with the treaty-based laws of the WTO is important. With regards to gas dual pricing and WTO accession negotiations, it helps shift questions from the political to the legal in a manner that can help understand how seemingly distinct and irreconcilable political economy agendas can be reconciled through the application of legal rules. One of the tasks of this chapter was to explore this interaction and to determine whether the *lex specialis* of WTO law precludes the application of the *lex generalis* principle of PSNR. It was within the context of this interaction that the legality of gas dual pricing was analysed. As we argued in the context of gas dual pricing, there are no WTO rules that would be violated if Russia were to become a WTO Member. And although the Russian government has recently decided to gradually converge Russian domestic and export gas prices by 2014, the relevance of this analysis will

not be undermined for a number of reasons. First, the pricing policy as it stands today continues to be a two-tier system. It is not unforeseeable to claim that Russia may backtrack on their price parity plan, if internal political economic conditions change dramatically. Second, the analysis of energy dual pricing relates deeply to the broader relationships between resource-endowed and resource-dependent countries and how these countries negotiate and cooperate in the creation of mutually satisfactory trading rules. Whether it be dual pricing, or production quotas, or development policies, the decisions made inside resource-endowed countries are increasingly scrutinized by their trading partners on the outside. Thirdly, in the context of particular cases of energy dual pricing, there remains a strong domestic incentive among many energy-endowed states around the world to employ dual pricing systems. Since most of these countries remain outside the WTO, it is quite conceivable to claim that dual pricing questions will reappear in a number of future accession negotiations.

While the overarching concepts that guide global free trade and the statist approach to natural resources exploitation are contradictory in nature, the specific rules of the WTO are likely to only place limited restrictions on the sovereign state's natural resources exploitation decisions. In fact, the WTO legal framework appears to be designed in such a way that it takes a neutral position with regard to a states sovereign right to explore and exploit their natural resources. Nevertheless, while the basic legal principles of the WTO do not extend to the domain of natural resources governance and particularly energy pricing policies in Russia, the neutrality of WTO law does not contribute to resolving or alleviating the inherent tension between the liberalist and statist approaches to international trade. In the era of energy dependency, this tension will continue to have relevance as resource-endowed states seek to maximize benefit from their resource endowment.

However, one positive aspect to this debate relates to the nature of the global economy: resource-endowed states can only benefit from their resource endowment, if they participate in global trade. While the statist approach and the principle of PSNR permit states to control their natural resources, governance of natural resources also requires global rules that permit the efficient trade in these resources and resource-intensive products. Without markets to sell one's resources or resource-intensive products, the principle of PSNR has little meaning in terms of economic development. Therefore, as the world moves through the twenty-first century, the global governance of energy will become more, not less, important as resource-exporting and resource-importing states struggle

to derive benefits by balancing the liberalist and the statist approaches to international trade.

Acknowledgements

The authors are grateful to Dr. Melaku Desta for his valuable comments and critical remarks on the earlier draft. All errors remain ours alone.

Note

1. The international trade regimes developed in the past 50 years, such as the GATT/WTO, are premised on the idea that trade liberalization or the liberalist approach create mutual economic advantages and benefits to states (See GATT 1947; Jackson 1969; WTO Agreement 1994). On the other hand, the principle of the PSNR states that every state has the full and inherent sovereign right to control and exploit its own natural resources in accordance with the UN Charter and the principles of international law.

Bibliography

Agreement on Subsidies and Countervailing Measures (ASCM) (15 April 1994) Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations, 33 I.L.M. 1125 (1994).

Agreement on Trade-Related Investment Measures (TRIMs Agreement) (15 April 1994) Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations 33 I.L.M. 1125.

Anti-Dumping Agreement (ADA) (15 April 1994) Marrakesh Agreement Establishing the World Trade Organization, Multilateral Agreements on Trade in Goods, Annex 1A, The Legal Texts: The Results of the Uruguay Round of Multilateral Trade Negotiations, 33 I.L.M. 1125.

Appellate Body (AB) Report (1996) *Japan – Taxes on Alcoholic Beverages*, WT/DS8, 10, 11/AB/R, adopted on 1 November 1996.

Appellate Body (AB) Report (1999) *Canada – Measures Affecting the Export of Civilian Aircraft*, WT/DS70/AB/R, adopted on 2 August 1999.

Appellate Body (AB) Report (2004a) *Canada – Measures Relating to Exports of Wheat and Treatment of Imported Grain*, WT/DS276/AB/R, adopted on 27 September 2004.

Appellate Body (AB) Report (2004b) *United States – Final Countervailing Duty Determination with respect to certain Softwood Lumber from Canada*, WT/DS257/AB/R, adopted on 17 February 2004.

Appellate Body (AB) Report (2011) *United States – Definitive Anti-Dumping and Countervailing Duties on Certain Products from China*, WT/DS379/AB/R, adopted on 25 March 2011.

Balzer, H. (2005) 'The Putin Thesis and Russian Energy Policy', *Post-Soviet Affairs*, Vol. 21, pp. 210–25.

Behn, D. (2007) 'The Effect of Dual Pricing Practices on Trade, the Environment, and Economic Development: Identifying the Winners and the Losers under the Current WTO Disciplines', *SSRN*, http://ssrn.com/abstract=1151553, date accessed 15 July 2011.

British Petroleum (2011) *BP Statistical Review of World Energy June 2011* (London: BP Publication).

Cooper, W. (2006) 'Russia's Accession to the WTO', *Congressional Research Service Report,* US Congress, No. RL31979.

Desta, M. (2010) 'Challenging OPEC Countries before the WTO: A Legal Analysis', in A. Reinisch (ed.) *OPEC and International Law* (The Hague: Eleven International Publishing).

Draft Convention on Ensuring International Energy Security (2011) http://ua-energy.org/ upload/ files/Convention-engl1.pdf, date accessed 15 July 2011.

Dudek, D. et al. (2004) *Environmental Aspects of Dual Pricing for Natural Gas in Russia* (Moscow: Environmental Defence).

Dudek, D. et al. (2006) 'Should Russia Increase Domestic Prices for Natural Gas?', *Energy Policy*, Vol. 34, p. 1668.

Energy Charter Secretariat (2007) *Putting a Price on Energy: International Pricing Mechanisms for Oil and Gas* (Brussels: Energy Charter Secretariat Publication).

Energy Charter Treaty (ECT) (1995) 34 I.L.M 556, http://www.encharter.org/ fileadmin/user_ upload/document/EN.pdf, date accessed 15 July 2011.

European Commission (EC) (2004) *Russia-EU Bilateral Market Access Agreement*, 21 May, cited in D. Tarr (2009) 'Political Economy of Russian Trade Policy: Early Transition, Customs Unions, WTO Accession and Protection for Industrial Diversification', *Paper Prepared for the Conference on the Political Economy of Trade Policy in the BRICs*, New Orleans, Louisiana, 27–28 March.

European Commission (EC) (2008) *Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: An EU Energy Security and Solidarity Action Plan*, Second Strategic Energy Review, COM (2008) 781 Final, Brussels.

European Parliament and the Council (1996) *Regulation No. 384/96 of 22 December 1995 on Protection against Dumped Imports from Countries not Members of the European Community*, OJ L 56, 6.3.1996.

European Parliament and the Council (2009) *Directive 2009/73/EC of 13 July 2009 Concerning Common Rules for the Internal Market in Natural Gas and Repealing Directive 2003/55/EC (Text with EEA relevance)*, OJ L 211/94 (Internal Market in Natural Gas Directive).

GATT Panel Report (1984) *Canada – Administration of the Foreign Investment Review Act (FIRA),* BISD 30S/140, adopted on 7 February 1984.

General Agreement on Tariffs and Trade (GATT) (30 October 1947), 61 Stat. A-11, T.I.A.S. 1700, 55 U.N.T.S. 194 (1947).

Jackson, J. (1969) *World Trade and the Law of GATT: A Legal Analysis of the General Agreement on Tariffs and Trade* (Charlottesville: The Michie Company).

Marrakesh Agreement Establishing the World Trade Organization (WTO Agreement) (15 April 1994), 1867 U.N.T.S. 154, 33 I.L.M. 1144 (1994).

Ministry of Energy of the Russian Federation (2003) *The Summary of the Energy Strategy of Russia for the Period of up to 2020*, http://ec.europa.eu/energy/russia/ events/ doc/2003_strategy_2020_en.pdf, date accessed 15 July 2011.

Monaghan, A. (2003) 'Russia-EU Relations: An Emerging Energy Security Dilemma', *Carnegie Endowment for International Peace*, http://www.carnegieendowment.org/files/EmergingDilemma1.pdf, date accessed 15 July 2011.

Nappert, S., A. Belyi, and V. Pogoretskyy (2011) 'Modernizing the Energy Charter Process? The Energy Charter Conference Road Map and the Russian Draft Convention on Energy Security', *OGEL Intelligence,* Advanced Publication.

Noel, P. (2008) 'Beyond Dependence: How to Deal with Russian Gas', *European Council on Foreign Relations Policy Brief,* ECRF/09.

Pauwelyn, J. (2003) C*onflict of Norms in Public International Law: How WTO Law Relates to Other Rules of International Law* (New York: Cambridge University Press).

Pirani, S. (ed.) (2009) *Russian and CIS Gas Markets and their Impact on Europe* (New York: Oxford University Press).

Pogoretskyy, V. (2009) 'The System of Energy Dual Pricing in Russia and Ukraine: The Consistency of the Energy Dual Pricing System with the WTO Agreement on Anti-Dumping', *Global Trade and Customs Journal*, Vol. 4(10), p. 313.

Pogoretskyy, V. (2011) 'Energy Dual Pricing in International Trade: Subsidies and Antidumping Perspectives,' in Y. Selivanova (ed.) *Regulation of Energy in International Trade Law: WTO, NAFTA and Energy Charter* (The Netherlands: Wolters Kluwer Law and Business).

Polouektov, A. (2002) 'Non-Market Economy Issues in the WTO Anti-Dumping Law and Accession Negotiations: Revival of a Two-Tier Membership?' *Journal of World Trade*, Vol. 36(1), p. 1.

Putin, V. (1999) 'Mineral'no-Syr'evyye Resursy v Strategii Razvitiya Rossiyskoy Ekonomiki (Mineral Natural Resources in the Strategy for Development of the Russian Economy),' *Ph.D. Thesis*, Zapiski Gornogo Instituta, St. Petersburg, Russia.

Ripinsky, S. (2004) 'The System of Gas Dual Pricing in Russia: Compatibility with WTO Rules', *World Trade Review*, Vol. 3, p. 463.

Schrijver, N. (1995) 'Sovereignty over Natural Resources: Balancing Rights and Duties in an Interdependent World,' *Ph.D. Thesis*, Rijksuniversiteit, Groningen, Netherlands, http://dissertations.ub.rug.nl/FILES/faculties/jur/1995/n.j.schrijver/thesis.pdf, date accessed 15 July 2011.

Schrijver, N. (1997) *Sovereignty over Natural Resources: Balancing Rights and Duties* (New York: Cambridge University Press).

Selivanova, Y. (2007) 'The WTO and Energy: WTO Rule and Agreements of Relevance to the Energy Sector', *International Center for Trade and Sustainable Development (ICTSD) Trade and Sustainable Energy Series Issue Paper*, No. 1.

Selivanova, Y. (2008) *Energy Dual Pricing in the WTO: Analysis and Prospects in the Context of Russia's Accession to the World Trade Organization* (London: Cameron May).

Tarr, D. (2008) 'Russian WTO Accession: Achievements, Impacts, Challenges', *Organization for Economic Cooperation and Development*, http://www.oecd.org/dataoecd/28/4/ 40747249.pdf, date accessed 15 July 2011.

Tarr, D. (2009) 'Political Economy of Russian Trade Policy: Early Transition, Customs Unions, WTO Accession and Protection for Industrial Diversification', *Paper Prepared for the Conference on the Political Economy of Trade Policy in the BRICs*, New Orleans, Louisiana, 27–28 March.

Tarr, D. and P. Thomson (2004) 'The Merits of Dual Pricing of Russian Natural Gas', *The World Economy*, Vol. 27, p. 1173.

The Moscow Times (2010) *Domestic Gas to Lose Subsidies*, 26 March, http://www.themoscowtimes.com/business/article/domestic-gas-to-lose-subsidies/402584.html, date accessed 15 July 2011.

Tsygankov, A. (2005) 'Vladimir Putin's Vision of Russia as a Normal Great Power', *Post-Soviet Affairs*, Vol. 21, pp. 132–58.

UNEP (2002) *Reforming Energy Subsidies: An Explanatory Summary of the Issues and Challenges in Removing or Modifying Subsidies on Energy that Undermine the Pursuit of Sustainable Development*, United Nations Environment Programme, Division of Technology, Industry, and Economics.

UN GA (1952) *The Right to Exploit Freely Natural Wealth and Resources*, G.A. Res. 626 (VII) UN Doc. A/PV.411, http://www.un.org/documents/ga/res/7/ares7.htm, date accessed 15 July 2011.

UN GA (1962) *Permanent Sovereignty over Natural Resources*, G.A. Res. 1803 (XVII), 17 U.N. GAOR Supp. No.17 at 15, U.N. Doc. A/5217.

UN GA (1966) *Permanent Sovereignty over Natural Resources*, G.A. Res. 2158, U.N. GAOR, 21st Sess., Supp. No. 16 at 29, U.N. Doc. A/6316, http://www.un.org/documents/ga/res/21/ares21.htm, date accessed 15 July 2011.

UN SC (2007) *Statement by the President of the Security Council*, 25 June, UN Doc. S/PRST/20-07/22.

Van den Bossche, P. (2005) *The Law and Policy of the World Trade Organization: Text, Cases, and Materials* (Cambridge: Cambridge University Press).

Vienna Convention on the Law of Treaties (1969), 1155 U.N.T.S. 331, http://untreaty.un.org/ilc/texts/instruments/english/conventions/1_1_1969.pdf, date accessed 15 July 2011.

WTO (1994) *The Understanding on the Interpretation of Article XVII of the GATT*, http://www.worldtradelaw.net/uragreements/articlexviiunderstanding.pdf, date accessed 15 July 2011.

WTO (1995) *Operations of State Trading Enterprises as they Relate to International Trade*, Background Paper by the Secretariat, G/STR/2, 26 October 1995.

WTO (2003) *Draft Report of the Working Party on the Accession of the Russian Federation to the World Trade Organization*, Working Party on the Accession of the Russian Federation, WT/ACC/SPEC/RUS/25/Rev.2, 26 May 2003.

WTO (2004) *Draft Report of the Working Party on the Accession of the Russian Federation to the World Trade Organization*, Working Party on the Accession of the Russian Federation, WT/ACC/SPEC/RUS/25/Rev.3, 15 October 2004.

WTO (2010) *World Trade Report 2010: Trade in Natural Resources* (Geneva: WTO Secretariat Publication).

WTO Panel Report (2001) *Korea – Measures Affecting Imports of Fresh, Chilled, and Frozen Beef*, WT/DS161/R, WT/DS169/R, adopted on 10 January 2001.

Zarrilli, S. (2005) 'Dual Pricing Practice and WTO Law,' *OGEL Intelligence*, Vol. 3(3).

3

The European Foreign Energy Efficiency Policy: Securing External Energy Supply in a Carbon-Constrained World

Anatole Boute

1. Introduction

Energy efficiency lies at the heart of the European strategy to create a sustainable, secure and competitive energy market (European Commission 2006a). It has long been considered a pillar of the internal European energy policy (European Commission 1987, 1991). More recently, the concern for improved energy efficiency has shifted from the realm of the European internal energy market to external energy relations. It became a cornerstone of the 'new energy diplomacy' of the European Union (EU) (European Parliament 2006a). The EU promotes energy savings in non-EU countries in order to limit global energy consumption and so guarantee the future availability of energy sources and reduce greenhouse gas (GHG) emissions (European Commission 2008; European Council 2006; European Parliament 2007a). In addition to these political and geopolitical objectives of energy security and climate change mitigation, the EU foreign energy efficiency policy pursues economic aims. By promoting energy efficiency improvements abroad, the EU aims to open new markets for the European industry and so stimulate the competitiveness of the European economy (European Commission 2009c).

The promotion of energy savings abroad constitutes a new approach to external energy relations that remains largely unexplored in the literature. Traditionally, the external energy policy aimed to guarantee the availability of sufficient energy sources to meet the consumption needs of the EU by focusing on issues such as the promotion and protection

of EU investments in the upstream energy sector of energy-producing countries, trade and contractual arrangements, and the transit of energy resources to the EU (Haghighi 2007). The EU now advocates energy efficiency improvements in non-EU countries as an alternative, or at least as a complement, to these traditional instruments. Although the literature on energy security recognises the potential contribution of energy savings abroad to the external energy policy objectives (Goldthau 2008a; Handke and de Jong 2007; Johnson 2005), the focus of the analysis primarily remains on the traditional instruments of upstream investment protection, transit and energy trade.

In this contribution, I analyse how the promotion of energy efficiency has been institutionalised in the external energy relations of the EU with non-EU countries and, in particular, with its main energy supplier – Russia. This analysis adopts a multidisciplinary perspective and focuses on the different actors involved in external energy efficiency by proposing a multidimensional analysis of this policy. I identify the relevant actors and critically assess their role from a political sciences, regulatory and, to a certain extent, economic angle. The objective of this approach is to examine whether external energy efficiency can be seen as a new paradigm for approaching the EU energy challenges of the twenty-first century.

The main argument of this chapter is that by cooperating in a less strategically sensitive sector than traditional upstream energy investments, EU energy efficiency initiatives in non-EU energy exporting countries have the potential to increase mutual trust and create privileged bonds. This consensual approach to external energy relations could be a way to open new doors for EU companies to the energy system of its energy suppliers. It could also provide a conceptual answer on how to guarantee external energy supplies in a carbon-constrained world. However, by touching upon the entire energy chain, promoting energy efficiency abroad can affect interests of energy suppliers of the EU. This strategic impact reinforces the sensitivity of external regulatory actions in the field of energy efficiency. The success of the EU foreign energy efficiency policy will therefore depend on the readiness of the EU to acknowledge these sensitivities in the context of its bilateral relations with its partner countries and in particular with Russia.

The structure of this contribution proceeds as follows. In section 1, I locate external energy efficiency within the current external EU energy relations, particularly in comparison to the traditional external energy policy instruments. Sections 2 and 3 analyse the multiplicity of actors involved in the EU external energy efficiency policy. Focus is placed

on highlighting the specific needs of energy producers, consumers and transit countries that external energy efficiency policy needs to takes into account. In Section 4, I approach the EU foreign energy efficiency policy from a regulatory perspective by critically analysing one particular mechanism proposed by the EU institutions to promote energy savings in non-EU countries: the export of the EU internal energy efficiency regulation (*acquis communautaire*) to non-EU countries. Section 5 concludes.

2. Energy efficiency as new approach to external Energy Relations

To understand the place that energy efficiency holds in the EU external energy policy and to examine to what extent it constitutes a new paradigm, it is necessary to briefly introduce the traditional approach of the EU to external energy relations.

2.1 The traditional approach to external Energy Relations

The development of a 'common' external energy policy is a sensitive issue in European politics. The necessity to 'speak with one voice' to Europe's energy suppliers increasingly became a political priority for the European Commission from 2006 (Haghighi 2007: 64). Limited external energy competences in the former Treaty establishing the European Community constrained the margin of manoeuvre of the European institutions to pursue an efficient common policy towards Europe's main energy suppliers.

However, despite the absence of an all-encompassing external energy policy, the European institutions, together with the member states, developed different mechanisms aiming at securing Europe's external energy supply. At the international level, the Energy Charter Treaty (ECT) resulted from a European initiative that was directed at facilitating Western, especially European, investments in the energy sectors of Russia and the Newly Independent States following the breakdown of the Soviet Union (Energy Charter Secretariat 2004).[1] It was believed that Western investments in the Eastern energy sector would generate a win-win exchange (Konoplyanik and Wälde 2006: 524; Lubbers 1996) and contribute towards the improved security of energy supply in Europe. The ECT was signed in December 1994 and entered into force in April 1998. Moreover, external energy initiatives took place at a bilateral level in the context of the partnership and cooperation agreements concluded between the European Community, its member states and

non-EU countries, such as Russia. Early regulatory measures to secure external energy supply also included the obligation to maintain minimum stocks of crude oil and petroleum products (Directive 68/414/EEC, repealed by Directive 2006/67/EC).

To facilitate European investments in the energy sector of the former Soviet Union, the ECT contains a strong investment protection regime (e.g. against expropriation and discrimination). As regards investments, the ECT requires the contracting parties to progressively remove existing restrictions affecting foreign investors. The Treaty also aims to facilitate the flow of energy to Europe by providing an international regulatory basis for the transit of energy products and by regulating trade in energy products. In a comparable way, the 1994 Partnership and Cooperation Agreement (PCA) between the EU, its member states and Russia refers to the importance of introducing a 'range of institutional, legal, fiscal and other conditions necessary to encourage increased energy trade and investment' (Article 65). In addition, the ECT and the PCA also contain provisions that directly deal with energy efficiency. Moreover, as its name indicates, the ECT Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA) specifically focuses on the promotion of energy efficiency. The relevance of the ECT and PEEREA provisions on energy efficiency is, however, limited (Bradbrook 1999). In contrast to investment and energy trade, provisions on energy efficiency are mostly non-binding. Adherence by the contracting parties can be regarded as discretionary (Bradbrook 1999: 254). According to Cameron, the ECT is 'almost explicitly not an environmental treaty' (Cameron 2010: 203; see also Gudkov 2009: 54). Following its original objective, it is primarily directed at 'traditional' energy investments in the exploitation and transportation of fossil fuels.

In all, given the focus on securing investments in the energy sector of energy-producing countries, and on securing the transit of energy products to Europe, the traditional European approach to external energy security arguably centred on upstream energy issues.

2.2 The European foreign energy efficiency policy

Energy efficiency as a mechanism of external energy security became increasingly important since 2000. The European Commission's Green Paper towards a European Strategy for the Security of Energy Supply of 29 November 2000 (European Commission 2000b) is often considered the start of a novel European approach to guarantee security of energy supply (European Commission 2002: 2). In this document, the Commission advocated energy efficiency as an indispensable

instrument to tackle the dual challenge of security of supply and climate change that characterise the new energy landscape of the twenty-first century. It proposed to integrate the promotion of energy efficiency and renewable energy sources in the EU external energy relations.

The EU external energy efficiency policy aims to achieve three objectives: securing energy supply, combating climate change and stimulating the competitiveness of the European industry. It simultaneously pursues political, geopolitical and commercial interests. According to the European Commission, investments into energy saving would 'free up resources that could be exported in the interest of both our neighbouring countries and the EU' (European Commission 2003: 5–6). Following this reasoning, energy efficiency improvements in non-EU countries would contribute to Europe's security of supply because they reduce, or at least limit, energy consumption worldwide and hence improve the availability of energy sources for the EU. For the EU, the main reasons for energy efficiency cooperation with non-EU countries thus primarily relate to the 'geopolitical and strategic interests of the EU', that is guaranteeing the future availability of energy sources to supply Europe (European Commission 2005a: 33).

In addition, according to the European Commission, the promotion of energy efficiency in non-EU countries would also be 'called for in the light of our shared commitment with our neighbouring countries to combat climate change' (European Commission 2003: 29; see also Anderson et al. 2005). This policy is, however, not solely informed by moral considerations related to Europe's commitment to climate goals but also by geopolitical interests. Indeed, the Commission defends the view that '[a]ction to tackle climate change reinforces security of energy supply' (European Commission 2000b: 49). Energy efficiency investments can generate a 'double dividend' by guaranteeing security of supply in a climate-friendly way (Boute 2007a: 227; Palacio 2008).

Moreover, this external climate change policy pursues commercial objectives. Indeed, since the first energy crisis in the early 1970s, the EU has made important efforts to improve the energy efficiency of its economy. Globally, the European industry is a leader in energy efficiency technology and benefits from a considerable competitive advantage in international markets. Therefore, it is now well placed to gain new markets in non-EU countries (European Commission 2005a: 34, 2009b; Wurzel and Connelly 2011a: 14, 2011b: 277). External energy efficiency efforts could play a key role in 'consolidating the European industry's role as world leader in this field and could contribute to boosting Europe's competitive edge in the energy sector' (European Commission

2005a: 34). The implementation of energy efficiency measures abroad would thus be a way to stimulate business opportunities for EU companies, in addition to the positive impact on Europe's security of energy supply and climate change mitigation efforts.

Following the European Commission's 2000 Green Paper on an EU Strategy for the Security of Energy, other EU institutions have endorsed the importance to integrate energy efficiency in the EU external energy policy. The European Council stressed on 24 March 2006 that the EU should promote the use of renewable energy sources and low-carbon technologies in its dialogue with non-EU countries. The Council meeting on Energy of 19 February 2009 confirmed that due to increasing energy demand worldwide the external energy relations of the EU and its member states should be consistent with the EU energy efficiency, renewable energy and climate change policy objectives.

By the same token, the European Parliament stressed the importance of including in the 'new energy diplomacy of the EU' a constructive dialogue with non-EU countries on energy efficiency and energy conservation (European Parliament 2006a). Moreover, in its Resolution of 26 September 2007 on Towards a Common European Foreign Policy on Energy, the European Parliament advocated the creation of a common European foreign energy policy covering security of supply, transit and investment related to energy security, as well as the promotion of energy efficiency and renewable energy.

2.3 Towards a new external energy paradigm?

Energy efficiency is one of the cornerstones of a novel foreign energy policy approach of the EU. This approach differs from the traditional understanding of external energy policy that was aimed at stimulating investments in the upstream energy sector. External energy efficiency integrates climate change and competitiveness considerations in a policy traditionally directed at securing the future availability of external energy supply. Energy efficiency can therefore, to a certain extent, be considered as a cornerstone of a new 'paradigm' for understanding external energy relations.

It is arguable that the EU institutions have opted to integrate promoting energy efficiency in the external energy policy because of the limited external EU competences in the former Treaty establishing the European Community. Historically, energy efficiency is an EU competence, in which internal rules were adopted. According to the so-called implied powers doctrine of the *AETR* judgement of the European Court of Justice, this would allow the EU exercising implied external powers in

this field (Eeckhout 2004: 59; European Court of Justice 1971; Haghighi 2007: 88–98). From this view, the limited EU competences forced the EU institutions to develop the energy efficiency 'paradigm' in order to act in its energy relations with non-EU countries.

Whether rooted in EU institutional logic or not, this new approach provides key conceptual answers to the necessity to guarantee energy security in a carbon-constrained world. By reconciling energy security with climate change mitigation and economic competitiveness, it aims to tackle the common energy challenges that the EU and its partner countries face.

3. A multidimensional perspective to external energy efficiency: The recipient countries

The energy efficiency paradigm as developed by the EU appears to suffer from important deficiencies in its approach to external energy relations. These deficiencies primarily relate to the fact that the EU fails to take into account the specific characteristics of energy producers, consumers and transit countries in the design of its external energy efficiency policy.

3.1 The EU external energy efficiency policy towards energy consumers, producers and transit countries

Constantly rising oil prices have in recent years come to highlight the impact of increased energy demand in these countries (European Commission 2005a: 33), making the EU and other energy-importing countries increasingly compete for the same energy resources. According to the EU external energy efficiency policy, the EU should, therefore, primarily target countries experiencing rapid economic growth, such as China and India (European Commission 2000b: 49; European Parliament 2007). Energy efficiency is considered 'an issue in the interest of all energy importing countries, including the Union, and should be integrated into their global strategy for security of energy supply' (European Commission 2005a: 33). The EU should also work in this field with major developed economies, such as the United States of America, Canada and Japan, as reductions in *all* major energy consumers will be beneficial for Europe's energy security. Accordingly, the EU should 'significantly step up bilateral and multilateral cooperation with these countries with the objective of encouraging the rational use of energy worldwide' (European Commission 2006a: 17). Along the same line, the European Parliament considered that China's growing

energy consumption and GHG emissions represent a 'huge challenge to environmental goals and security of energy supply'. Therefore, it called for 'an enhanced cooperation between the EU and China to promote the transfer of low carbon technology, in particular energy efficiency and renewable' (European Parliament 2009).

The promotion of energy efficiency in the EU external energy policy is not limited to key consumer countries. It is also directed to the major energy-producing countries that supply Europe. In this respect, energy efficiency holds an important place in the European Neighbourhood Policy (European Commission 2004a: 17, 2007b: 8). Promotion of energy savings has for instance been integrated in the EU's Partnership and Cooperation Agreement with Azerbaijan of 22 April 1996, in the EU/Azerbaijan Action Plan in and the Memorandum of Understanding on a Strategic Partnership between the EU and Azerbaijan in the Field of Energy of 7 November 2006.[2] By the same token, it is a key aspect of the so-called INterstate Oil and GAs To Europe (INOGATE) Program, the Baku Initiative and the Eastern Partnership and the Black Sea Synergy initiative (European Commission 2007b: 5).[3] Moreover, the European Commission supports New Partnerships for Renewable Energy and Energy Efficiency Cooperation with the Mediterranean and Gulf states (European Commission 2009b; Ferrero-Waldner 2009). Along the same line, the European Parliament recently called on the EU to cooperate with the countries of the Mediterranean region, and of North Africa 'in view of their significant energy resource potential' (European Parliament 2009).

In addition to major energy-consuming and energy-producing countries, transit countries are a third target group for the EU external energy efficiency policy. The European Commission has for instance undertaken action to modernise and thus improve the energy efficiency of the Ukrainian transit system (European Commission 2009c). Following the Russo-Ukrainian gas crises, leading analysts pointed to Ukraine's very energy-inefficient economy as one of the causes of its heavy dependence on imported Russian gas and thus one of the major concerns for the EU (Pirani et al. 2009: 58). They argued in favour of reducing energy consumption via the implementation of energy-saving measures in the Ukrainian economy (Pirani et al. 2009: 58; see also van der Linde and de Jong 2009: 5).

It is important to note that the EU institutions, however, do not propose to distinguish between transit countries, energy producers or energy-consuming countries regarding the design of its external energy efficiency policy.

3.2 Energy efficiency in the EU-Russian Energy Dialogue

Energy efficiency plays a central role in the context of the EU-Russian energy relation. According to former EU Commissioner for Energy Piebalgs and Russian Energy Minister Shmatko, improving energy efficiency and increasing the share of renewable energy resources has been 'one of the main priority areas of the EU-Russia Energy Cooperation' (Piebalgs and Shmatko 2009). Energy efficiency has been included in Article 65 of the Partnership and Cooperation Agreement of 24 June 1994 between the EU, its member states and Russia and is one of the cornerstones of the EU-Russian Energy Dialogue.[4] Moreover, energy efficiency is a core element of the recent EU-Russian Partnership for Modernisation agreed at the EU-Russia Summit in June 2010 in Rostov-on-Don (Council of the European Union 2010).

In accordance with the general objectives of the EU external energy efficiency policy, the EU aims to stimulate energy savings in Russia in order to guarantee the availability of energy resources for future supply to the EU. The European Commission considered in 2004 that Russia's economic growth 'makes it all the more essential that Russian industry adopts efficient energy practices in order to increase capacities for export, including towards the EU' (European Commission 2004). According to the Thematic Group on Energy Efficiency of the EU-Russian Energy Dialogue, deepening cooperation in the field of energy efficiency between Russia and the EU is 'a crucial issue in order to intensify EU-Russia energy relations' and to 'contribute to the availability of a higher level of Russian energy supply for export to the EU' (Thematic Group on Energy Efficiency 2007; see also César et al. 2009).

Many observers agree with the Commission's conclusions on the necessity to stimulate energy savings in Russia to guarantee future supplies. The International Energy Agency (IEA) has, for instance, expressed its concern that rising domestic gas demand 'will begin to affect Russia's position as a secure and reliable supplier' (IEA 2006: 16; see also Cambridge Energy Research Associates 2007; World Bank 2008: 40). According to the IEA:

> [t]he economic value of the saved gas justifies the identified energy-efficiency improvements, which would also enhance energy security for Russia and importing countries. It will thus reinforce Russia's role as a reliable supplier of natural gas in the coming decades.
>
> (IEA 2006: 16)

Russia should use its considerable energy efficiency potential to slow demand growth and help manage the above problems (Bashmakov

2005: 5; Goldthau 2008a: 687, 690; Handke and de Jong 2007: 27; Johnson 2005: 262).

Along the same lines, a report on EU-Russian relations drafted by French senators on behalf of the EU delegation expressed 'a real concern about Russia's capacity to honour its commitments towards the EU as regards to the supply of hydrocarbons, given the increases in domestic demand and the lack of investments, in particular in the gas sector' (translation from French of Pozzo di Borgo et al. 2007: 46). In the face of these challenges for Europe's security of energy supply, the senators, along the same line as the European Commission and the IEA, highlighted Russia's 'huge potential in the field of energy efficiency and energy savings'. Recent progress made in the development of Russia's energy infrastructure, together with the largely unexpected impact of unconventional gas on international markets, has to some extent alleviated the concerns on the future availability of Russian gas. However, given the strategic dependence of Europe on Russian energy sources, energy efficiency improvements in Russia remains a high priority in the context of the EU-Russia Energy Dialogue.

Similarly to the general idea underlying the promotion of energy efficiency in the EU external energy policy, European support for energy efficiency improvements in Russia would also support the EU's commitment to combat climate change (Goldthau 2008b: 11). Stimulating energy savings in Russia would avoid nullifying EU efforts to reduce domestic emissions of GHG through an increase of energy consumption in Russia. The European Parliament, therefore, called on the Russian Federation to 'invest heavily in energy efficiency measures, given the urgent need to address the problem of climate change' (European Parliament 2007a, b).

Finally, the external energy efficiency and climate change agenda of the EU institutions can be considered to pursue commercial benefits. Improving the energy efficiency of the Russian economy, for instance, is expected to bring substantial economic gains for European companies. To the same extent, modernising the Russian electricity production infrastructure represents a huge business opportunity for European energy companies (Bernotat 2007).

3.3 Adopting a multidimensional approach to external energy efficiency

The EU external energy efficiency policy recognises the strategic importance of energy savings in Russia – Europe's largest energy supplier – for Europe's external energy security. The reasons advanced to

promote energy savings in Russia are largely similar to those proposed with respect to energy-consuming and transit countries: to ensure the future availability of energy. It is arguable that supporting energy savings in energy-producing countries, and in particular in Russia, offer potential additional benefits. Notably, it is this policy that presents opportunities for the potential future participation of European companies in upstream energy projects. Indeed, energy efficiency could be seen as a way to tighten the links and reinforce mutual trust between Europe and energy producers. It represents a less strategically important and sensitive field than traditional upstream energy issues. Collaborating in this less strategic area, the EU could hope to become the preferred partner when it comes to concluding deals on major upstream energy developments. Cooperation in the field of energy efficiency with Russia could, therefore, be considered a strategy to increase EU-Russian ties in order to facilitate traditional upstream energy contracts in the future.

On the other hand, EU energy efficiency policies might conflict with the interests of energy-producing countries. Russia might see internal and external energy efficiency initiatives as a threat, because they reduce the need for additional energy sources or at least curb increases in energy consumption. This could have a potentially damaging impact on the long-term financial viability of upstream energy projects. The potential threat that energy efficiency policies represent for energy-producing countries was highlighted by Russia's critical reaction to EU's energy consumption forecasts in the Second Strategic Energy Review (van Leeuwen 2009). Following the forecasts of the Second Strategic Energy Review, the EU energy policy reduces energy consumption in 2020 by as much as 15 per cent and leads to a reduction of expected imports of energy by up to 26 per cent compared to the developments before the implementation of the EU energy efficiency, climate change and renewable energy policy. This would fundamentally change the EU's energy outlook.

In addition, energy-producing countries might see energy efficiency as a problem because of the strategic importance of the energy infrastructure that undergoes energy efficiency improvements. In Russia, access to the network infrastructure for the transportation of oil and gas is historically a sensitive topic. Limited access to the gas network, for instance, constitutes one of the major barriers to the reduction of 'gas flaring' (Henderson 2010: 164, 244). In energy-consuming countries, by contrast, foreign investment in the development and modernisation of the energy network infrastructure should not necessarily always be so controversial.

As neatly demonstrated, cooperation in the field of energy efficiency is in theory much less strategically sensitive than traditional upstream energy investments, but in practice nevertheless remains a challenging task. In the context of EU-Russian energy relations, the sensitivity of network-related energy efficiency projects was recently highlighted by Russia's criticism of EU plans to modernise Ukraine's gas transit system (Euractiv 2010; Gabuev 2009). Russia's Prime Minister Putin threatened to review Russia's energy relations with the EU after the European Commission announced plans to modernise Ukraine's gas transit system without involving Russia in this project. Thus energy efficiency as part of external energy policy cannot be applied in a uniform way towards all partner countries of the EU independent of the specific characteristics of their energy industry. It needs to be defined and implemented by taking into account the different opportunities and challenges that it represents for energy producers, consumers and transit countries.

4. EU *versus* national approaches to external energy efficiency

The promotion of energy efficiency and energy savings in Russia is not only part of the 'common' EU external energy policy. It is also actively supported by many EU member states in their bilateral relations with energy-producing countries and in particular with Russia. The Netherlands (Handke and de Jong 2007: 62; Ministry of Economic Affairs of the Netherlands 2006, 2009), Germany (Federal Foreign Office of Germany 2009), Italy, Finland (Shmatko and Pekkarinen 2010), France (French Ministry of Sustainable Development 2008) and even Greece have discussed, concluded and/or implemented bilateral cooperation agreements with Russia in order to participate in energy efficiency projects in Russia. Germany and France have institutionalised this cooperation through the creation of joint Russian-German and Russian-French energy centres. The Russian-German Energy Agency (RuDEA) focuses on the development of the Russian potential in energy efficiency and renewable energy sources. This agency is embedded in the German-Russian Modernisation Partnership.

The bilateral approach to the promotion of energy efficiency pursues very similar goals as the EU external energy policy, that is guaranteeing the future availability of Russian energy sources in a climate-friendly way (Viëtor 2009: 4) and reinforcing bilateral links with Russia. That way, individual EU member states could aim to become privileged partners with Russia and improve the chances of their industry to participate

in the development of upstream energy projects in Russia. In addition, in a similar way to the EU approach, the EU member states also purport to harness the commercial potential that the huge investment needs in the modernisation of the Russian economy represent for their companies (Ministry of Economic Affairs of the Netherlands 2006; Viëtor 2009: 4). Jänicke argues for instance that the 'international diffusion of German technology-based regulations (such as the Renewable Energy Act) can support domestic firms' (Jänicke 2011: 142).

This bilateralisation of energy relations however tends to undermine the coherence and efficiency of the 'common' EU external energy policy and its ability to speak with one voice' towards Russia (European Commission 2006a: 15). A bilateral approach to energy efficiency is no exception. EU interests pursued by promoting energy efficiency in the EU external energy relations could run counter to agendas of individual EU member states in their bilateral relations with Russia. As mentioned above, energy efficiency can be seen as a political strategy to increase mutual trust, create a privileged relation and gain priority access to traditional energy projects. It is, therefore, arguable that energy efficiency could reinforce the existing divisions between individual member states in their external energy policy towards Russia.

5. Convergence towards the EU energy efficiency regulatory model?

One of the mechanisms advocated by the EU and its member states to promote energy savings abroad is the export of the EU regulations in the field of energy efficiency to non-EU countries. The EU and its member states aim to influence the creation of energy efficiency regulations abroad by inviting non-EU countries to integrate the relevant EU *acquis communautaire* into their national law. This 'export' of EU rules is central to the EU external energy efficiency policy towards Russia (European Commission 2004b). Following this 'regulatory convergence' approach, Russia should adopt EU energy efficiency principles as part of Russian domestic law.

The *acquis communautaire* in the field of energy efficiency includes the Energy End-Use Efficiency Directive (Directive 2006/32/EC of 5 April 2006), the Combined Heat and Power Directive (Directive 2004/8/EC of 11 February 2004), the Renewable Energy Directive (Directive 2009/28/EC of 23 April 2009), and parts of the Internal Electricity Market Directive (Directive 2009/72/EC of 13 July 2009) and the Internal Gas Market Directive (Directive 2009/73/EC of 13 July 2009) (Boute 2007b; Boute and De Geeter 2006).

Following the regulatory convergence approach of the EU external energy efficiency policy, non-EU partner countries should integrate these mechanisms into their internal legal order. The EU institutions and the member states do not elaborate on how to adapt the EU regulation to the specific characteristics of non-EU partner countries. Scholars, however, point out the risk that the outcome of regulatory convergence, as advocated by the European institutions, is likely to remain 'laws in books' (Buzogány and Costa 2009: 537). Indeed, the practical meaning of foreign rules depends on how these rules fit with the domestic institutional environment (Bonardi et al. 2007).

The effect of rules ultimately depends on how they are understood and enforced in host countries (Pistor 2004) and on how they answer to specific domestic needs and conditions. The legal system of many emerging and transition economies is often considered by Western scholars to be characterised by inefficient institutions. Moreover, in contrast to the organisation of the EU electricity and gas markets on a liberalised basis, the energy sector of many EU partner countries largely remains organised on the basis of a central command and control approach. Given these institutional, organisational and economic differences, it can be questioned whether the EU energy efficiency instruments fit well with local conditions in non-EU countries. It can thus be doubted that EU energy efficiency principles will be effectively implemented abroad. To ensure the effective implementation of energy efficiency regulation, the specific regulatory, economic and institutional characteristics of the recipient countries must be acknowledged. An approach adapted to those characteristics must be developed for each particular partner country.

6. Conclusion: Energy efficiency as cornerstone of the 'new energy diplomacy'

Energy efficiency has become a cornerstone of the EU energy diplomacy in the twenty-first century. European energy security, climate change mitigation and competitiveness objectives do not only depend on internal EU energy savings. These objectives must also be achieved by re-orientating the economy of the partner countries of the EU towards more energy-efficient patterns.

Energy efficiency as a new approach to EU external energy relations offers crucial conceptual answers to the dual challenges of energy security and climate change. Simultaneously it fosters trust with major energy-producing countries by cooperating on less strategically sensitive issues. Moreover, it is a creative answer to the historically limited

EU external competences in the fields of energy and foreign investment policy.

The promotion of energy efficiency in non-EU countries is presented by the EU institutions as being in the geopolitical interests of the EU and its member states. It is also justified on the basis of moral grounds such as the EU commitment to climate change mitigation. Even in this respect, though, commercial interests – rather than moral considerations – appear to be the preponderant reason underlying this approach. Given the potential strategic benefits associated with external energy efficiency efforts, member states also pursue this approach on a bilateral way. These bilateral energy efficiency policies could compete with the 'common' EU approach and undermine a 'common voice' towards Russia.

In its present form, EU external energy efficiency policies, however, fail to grasp the complexities that characterise the relations between the EU as net energy importer and its energy exporting and transit partners. It does not account for the diverging opportunities and challenges that characterise the promotion of energy efficiency in non-EU countries depending on whether they are consuming, producing or transit countries. Yet, it is essential to define and implement energy efficiency policies as a function of the type of recipient country concerned (i.e. energy consuming, energy producing or transit) and of the entity that advocates this principle in its external energy relations (i.e. the EU or the individual member states). Moreover, it is fundamental to take into account the interests of third world countries that could be affected by this external energy efficiency policy, even if they are not the target of a given policy. Such a conceptual multidimensional approach is essential in order to grasp the different challenges (sensitivities) and opportunities at stake. It is essential to balance the risks and benefits related to the promotion of energy efficiency in non-EU countries. Only based on such a balanced approach, it is possible to propose an efficient policy that would allow attaining the interrelation energy security, climate change mitigation and competitiveness goals of EU energy policy.

Notes

1. The Dutch Prime Minister Ruud Lubbers proposed the creation of an Energy Charter.
2. For more information, see: http://ec.europa.eu/world/enp/pdf/action_plans/azerbaijan_ enp_ap_final_en.pdf.
3. For more information, see: www.inogate.org/inogate/en/baku-initiative.

4. For more information, see: http://ec.europa.eu/energy/international/bilateral_cooperation/russia/russia_en.htm.

Bibliography

Anderson, J., Bassi, S. and Aufenanger, V. (2005) 'Discussion Paper: The Energy and Climate Change Dimensions of the European Neighbourhood Policy' *WWF and Institute for European Environmental Policy* [accessed 10 November 2011].

Bashmakov, I. (2005) 'Energeticheskaya effektivnost' v Rossii I perspektivy eksporta rossiisckovo gaza', available online at www.cenef.ru/file/GasExportsProspects.pdf [accessed 10 November 2011].

Bashmakov, I. (2008) *Resource of energy efficiency in Russia: Scale, Costs and Benefits*, available online at www.cenef.ru/file/Energy%20balances-final.pdf [accessed 10 November 2011].

Bernotat, W. (2007) Transcript of the Telephone Conference on the Acquisition of Shares in OGK-4 by E.ON, available online at www.eon.com/en/downloads/Rede_Bernotat_OGK_4_en.pdf [accessed 10 November 2011].

Bonardi, J. P., et al. (2007) 'The Political Economy of International Regulatory Convergence in Public Utilities', avaliable online at www.aaep.org.ar/anales/works/works2007/bonardi.pdf [accessed on 10 November 2011].

Boute, A. (2007a) 'Combating Climate Change and Securing Electricity Supply: The Role of Investment Protection Law' *European Environmental Law Review,* 16, pp. 227–48.

Boute, A. (2007b) 'Energy Efficiency in the European Union – The Policy Framework', in Roggenkamp, M. and Hammer, U. (eds.), *European Energy Law Report VII* (Oxford/Antwerp: Intersentia), p. 135.

Boute, A. and De Geeter, A. (2006) 'Directive 2006/32/EC on Energy End-Use Efficiency and Energy Services: Realising the Transition to Sustainable Energy Markets?' *Journal for European Environmental and Planning Law,* 414, pp. 414–31.

Bradbrook, A. (1999) 'Significance of the Energy Charter Treaty' *Applied Energy* 64, p. 251.

Buzogány, A. and Costa, O. (2009) 'Greening the Neighourhood? The Environmental Dimension of the ENP in Morocco and Ukraine' *European Foreign Affairs Review,* 14, p. 525.

Cambridge Energy Research Associates (2007) *Securing the Future – Making Gas Interdependence Work* (Cambridge MA: CERA).

Cameron, P. (2010) *International Energy Investment Law – The Pursuit of Stability* (Oxford: Oxford University Press).

César, G. et al. (2009) *Russie: Puissance ou interdépendence énergétique?* (Sénat Français), available online at www.senat.fr/noticerap/2009/r09-182-notice.html [accessed 10 November 2011].

Council of the European Union (19 February 2009) Press Release 2924th Council Meeting – Energy (6670/09 Presse 43).

Council of the European Union (31 May–1 June 2010) Joint Statement on the Partnership for Modernisation EU-Russia Summit (10546/10 PRESSE 154).

Eeckhout, P. (2004) *External Relations of the European Union – Legal and Constitutional Foundations* (Oxford: Oxford University Press).

Energy Charter Secretariat (2004) 'An Introduction to the Energy Charter Treaty', in The Energy Charter Treaty and Related Documents, http://www.encharter.org/fileadmin/user_upload/document/EN.pdf [accessed 10 November 2011].
Euractiv (2010) 'Russia Keen to Join EU in Revamping Ukraine's pipelines', available online at www.euractiv.com/en/energy/russia-eager-join-eu-revamping-ukraine-s-pipeline-network-news-421013 [accessed 10 November 2011].
European Commission (13 May 1987) Communication Towards a Continuing Policy for Energy Efficiency in the European Union (COM(87) 223 final).
European Commission (14 October 1991) Communication on A Community Strategy to Limit Carbon Dioxide Emissions and to Improve Energy Efficiency (COM(91) 1744 final).
European Commission (26 April 2000a) Communication of on an Action Plan to Improve Energy Efficiency in the European Community (COM(2000) 247 final).
European Commission (29 November 2000b) Green Paper on Towards a European Strategy for the Security of Energy Supply (COM(2000) 769 final).
European Commission (17 December 2001) Communication on EU-Russia Environmental Cooperation (COM(2001) 772 final).
European Commission (26 June 2002) Communication Final Report on the Green Paper 'Towards a European Strategy for the Security of Energy Supply' (COM(2002) 321 final).
European Commission (26 May 2003) Communication on the Development of Energy Policy for the Enlarged European Union, its Neighbours and Partner Countries (COM(2003) 262 final).
European Commission (12 May 2004a) Communication on the European Neighbourhood Policy – Strategy Paper (COM(2004) 373 final).
European Commission (13 December 2004b) Communication on the Energy Dialogue between the European Union and the Russian Federation between 2000 and 2004 (COM(2004) 777 final).
European Commission (22 June 2005a) Green Paper on Energy Efficiency or Doing More with Less (COM(2005) 265).
European Commission (7 December 2005b) Communication on The Support of Electricity from Renewable Energy Sources (COM(2005) 627 final).
European Commission (8 March 2006a) Green Paper on a European Strategy for Sustainable, Competitive and Secure Energy (COM(2006) 105 final).
European Commission (15/16 June 2006b) An External Policy to Serve Europe's Energy Interests – Paper from Commission/SG/HR for the European Council.
European Commission (9 October 2006c) Communication on an Action Plan for Energy Efficiency: Realising the Potential (COM(2006)545 final).
European Commission (12 October 2006d) Communication on External Energy Relations – From Principles to Action (COM(2006) 590 final).
European Commission (13 November 2006e) Communication on Building a Global Carbon Market – Report Pursuant to Art. 30 of Directive 2003/87/EC (COM(2006) 676).
European Commission (10 January 2007a) Communication on an Energy Policy for Europe (COM(2007) 1 final).
European Commission (11 April 2007b) Communication on the Black Sea Synergy – A New Regional Cooperation Initiative (COM(2007) 160 final).
European Commission (5 December 2007c) Communication on A Strong European Neighbourhood Policy (COM(2007) 774 final).

European Commission (13 November 2008) Communication on the Second Strategic Energy Review: An EU Energy Security and Solidarity Action Plan (COM(2008) 0781 final).
European Commission (7 October 2009a) Communication on Investing in the Development of Low Carbon Technologies (SET-Plan) (COM(2009) 519 final).
European Commission (5 November 2009b) Publication: EU, Mediterranean and Gulf States: New Partnerships for Renewable Energy.
European Commission, European Bank for Reconstruction and Development, European Investment Bank, World Bank and Government of Ukraine (23 March 2009c) Joint Declaration on the Joint EU-Ukraine International Investment Conference on the Modernisation of Ukraine's Gas Transit System.
European Council (18 May 2006a) Presidency Conclusions 7775/1/06 REV 1.
European Council (23 November 2006b) Presidency Conclusions (15295/06).
European Council (8/9 March 2007) Presidency Conclusions 7224/1/07 REV 1 (2 May 2007).
European Court of Justice Case 22/70, *Commission v. Council (European Road Transport Agreement)* Judgment of 31 March 1971 ECR 263.
European Economic and Social Committee (23 January 2004) Opinion on the Proposal for a Directive of the European Parliament and of the Council on Energy End-Use Efficiency and Energy Services (*OJ* 2005 C 120/115).
European Parliament (23 March 2006a) Resolution on Security of Energy Supply in the European Union (P6_TA(2006)0110).
European Parliament (1 June 2006b) Resolution on Energy Efficiency or Doing More with Less – Green Paper (P6_TA(2006)0243).
European Parliament (26 September 2007a) Resolution on towards a Common European Foreign Policy on Energy (P6_TA(2007)0413).
European Parliament (14 November 2007b) Resolution on the EU-Russia Summit on the Russian Federation (P6_TA(2007)0528).
European Parliament (3 February 2009) Resolution on the Second Strategic Energy Review (P6_TA(2009)0038).
Evans, M., Legro, S. and Popov, I. (2000) 'The Climate for Joint Implementation: Case Studies from Russia, Ukraine and Poland' *Mitigation and Adaptation Strategies for Global Change,* 5, p. 319.
Federal Foreign Office of Germany (2009) Economic and Energy Cooperation, available online at www.auswaertiges-amt.de/diplo/en/Aussenpolitik/RegionaleSchwerpunkte/Russland/Russland-Wirtschaft-Energie.html#t4 [accessed 10 November 2011].
Ferrero-Waldner, B. (9 October 2009) 'Opening Remarks' to the EU-Mediterranean-Gulf Renewable Energy Conference, Brussels (SPEECH/ 09/456).
French Ministry of Sustainable Development and Russian Ministry of Energy (September 2008) Inter-Ministerial Agreement on Energy Efficiency, available online at www.ademe.fr/htdocs/publications/international/14/p1.htm [accessed 10 November 2011].
Gabuev, A. (26 March 2009) 'Rossiya povyshet davlenie gaza' Kommersant', available online at www.kommersant.ru/doc.aspx?DocsID=1144186 [accessed 10 November 2011].
Goldthau, A. (2008a) 'Rhetoric versus Reality: Russian Threats to European Energy Supply' *Energy Policy,* 36, p. 686.
Goldthau, A. (2008b) 'Improving Russian Energy Efficiency: Next Steps' *Russian Analytical Digest,* 46, p. 9.

Government of the Russian Federation (2008) Conception for the Long-term Social and Economic Development of the Russian Federation until 2020, as adopted by Regulation No. 1662-r of 17 November 2008, as modified by the Regulation of the Government of the Russian Federation No. 1121-r of 8 August 2009.

Government of the Russian Federation (2009) Russia's Energy Strategy for the Period up to 2030, as adopted by Regulation No. 1715-r of 13 November 2009.

Gudkov, I.V. (2009) 'Rossiiskii kontseptual'nyi podkhod i dogovor k Energeticheskoi chartii', *Neft', Gaz i Pravo,* p. 50.

Haghighi, S. (2007) *Energy Security – The External Legal Relations of the European Union with Major Oil and Gas Supplying Countries* (Oxford: Hart Publishing).

Handke, S. and de Jong, J. (2007) *Energy as a Bond: Relations with Russia in the European and Dutch Context* (The Hague: Clingendael International Energy Programme).

Henderson, J. (2010) *Non-Gazprom Gas Producers in Russia* (Oxford: Oxford Institute for Energy Studies).

International Energy Agency (2006) *Optimising Russian Natural Gas – Reform and Climate Policy* (Paris: IEA).

International Finance Corporation (2004) *Financing Energy Efficiency in the Russian Federation – GEF Project Brief* (Washington: The World Bank Group).

International Finance Corporation (2008) *Energy Efficiency in Russia – Untapped Reserves* (Washington: The World Bank Group).

Jänicke, M. (2011) 'German Climate Change Policy: Political and Economic Leadership', in Wurzel, R. and Connelly, J. (eds.) (2011a).

Johnson, D. (2005) 'EU-Russian Energy Links: A Marriage of Convenience' *Government and Opposition,* 40, p. 256.

Konoplyanik, A. and Wälde, T. (2006) 'Energy Charter Treaty and its Role in International Energy' *Journal of Energy and Natural Resources Law,* 24, p. 523.

Lubbers, R. (1996) 'Foreword', in Wälde T. (ed.), *The Energy Charter Treaty – An East-West Gateway for Investment and Trade* (The Hague/London/Boston: Kluwer), p. xiii.

Ministry of Economic Affairs of the Netherlands (2006) *Energy Efficiency Sector in Russia: Market Survey of Equipment and Services.*

Ministry of Economic Affairs of the Netherlands (2009) *Russia: Energy Efficiency*, available online at www.evd.nl/zoeken/showbouwsteen.asp?bstnum=159915 [accessed 10 November 2011].

Morozov, V. (2008) 'Energy Dialogue and the Future of Russia: Politics and Economics in the Struggle for Europe', in Aalto, P. (ed.), *The EU-Russian Energy Dialogue* (Aldershot: Ashgate).

Palacio, A.(2008) 'Introductory Remarks', in Coop, G. and Ribeiro, C. (eds.), *Investment Protection and the Energy Charter Treaty* (Huntington: JurisNet).

PEEREA Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects (2007) *Russian Federation – Regular Review of Energy Efficiency Policies* (Brussels: The Energy Charter).

Piebalgs, A. (2006) 'EU and Russian Energy Strategies', Speech delivered at the EU-Russia Energy Dialogue Conference of 30 October 2006 (SPEECH/06/653).

Piebalgs, A. and Shmatko, S. (2009) *Energy Dialogue EU-Russia – The Tenth Progress Report.*

Pirani, S., Stern, J. and Yafimava, K. (2009) 'The Russo-Ukrainian gas dispute of January 2009: A Comprehensive Assessment', *Oxford Institute for Energy Studies*.

Pistor, K. (2004) 'The Standardization of Law and Its Effect on Developing Countries' *G-24 Discussion Paper Serie*s, p. 4.

Pozzo di Borgo, Y. et al. (2007) *Rapport d'information fait au nom de la délégation pour l'Union européenne sur les relations entre l'Union européenne et la Fédération de Russie* (Sénat Français).

Selivanova, J. (2004) 'World Trade Organization Rules and Energy Pricing: Russia's Case' Journal of World Trade, 38, p. 559.

Shmatko, S. and Pekkarinen, M. (4 February 2010) Memorandum of Understanding (MoU), available online at www.energy-enviro.fi/index.php?PAGE=2&NODE_ID=4&ID=3008 [accessed 10 November 2011].

Thematic Group on Energy Efficiency of the EU–Russian Energy Dialogue (27 September 2007) *Terms of Reference,* Annex 2, available online at http://ec.europa.eu/energy/russia/groups/efficiency_en.htm [accessed 10 November 2011].

van der Linde, C. and de Jong, J. (2009) 'Upping the Stakes – Some Lessons for the EU from the Recent Russia-Ukraine Gas Crisis' *Clingendael International Energy Programme Briefing Papers*.

van Leeuwen, P. (2009) 'EU en Externe Energierelaties', Nederlands Vereniging voor Energierecht, Pels Rijcken and Droogleever Fortuijn N.V., The Hague, 4 March 2009.

Viëtor, M. (2009) 'IRENA and RuDEA – Germany Promotes Renewable Energy and Energy Efficiency Globally', DGAPaktuell, available online at www.dgap.org/midcom-serveattachmentguid-1de66e539d24bc266e511deab61bfafa2bd0fd00fd0/2009-05_dgapaktuell_vi–tor_irena-and-rudea.pdf [accessed 10 November 2011].

Westerwelle, G. and Lavrov, S. (2010) 'The German-Russian Modernization Partnership', available online at http://www.auswaertiges-amt.de/diplo/en/Infoservice/Presse/Interview/2010/100531-BM-FAZ.html [accessed 10 November 2011].

World Bank Russia Country Office (2008) *Russian Economic Report No.* 17 (Washington: The World Bank Group).

Wurzel, R. and Connelly, J. (eds.) (2011a) *The European Union as a Leader in International Climate Change Politics* (London and New York: Routledge).

Wurzel, R. and Connelly, J. (2011b) 'Introduction: European Union Political Leadership in International Climate Change Politics', in Wurzel, R. and Connelly, J. (eds.) (2011a).

Wurzel, R. and Connelly, J. (2011c) 'Conclusion: The European Union's Leadership Role in International Climate Change Politics Reassessed', in Wurzel, R. and Connelly, J. (eds.) (2011a).

4

Re-Thinking EU Energy Security: The Utility of Global Best Practices for Successful Transnational Energy Governance

Michael F. Keating

1. Introduction

Policy transfer has become a key tool of European Union (EU) foreign policy making in the energy sector. Policy transfer is defined as processes whereby 'knowledge about how policies, administrative arrangements, institutions and ideas in one political setting (past or present) is used in the development of policies, administrative arrangements, institutions in another political setting' (Dolowitz and Marsh 2000: 5). In the case of the electricity sector, the EU seeks to transfer policies to its neighbours and energy partners, and thereby influence the direction of electricity sector reforms, as a strategy for improving EU energy security. This article explores the problematic basis of this approach to meeting EU foreign policy objectives on two fronts. First, various 'institutional problems' that may result from the different domestic political economic contexts in the target countries from the EU are flagged. Second, the actual policies being transferred by the EU are revealed as problematic neo-liberal 'global best practices' for electricity sector reform. These have proved controversial even inside the EU.

Using the policy transfer failure literature, the institutional problems and serious shortcomings of attempting to provide for EU energy security through policy transfer become apparent. Policy transfer occurs in a specific historical, political, economic and institutional context. Success in one sector or state, consequently, will not necessarily be repeated

elsewhere, and transferred policies may in practice produce outcomes at variance with the intent of reform processes. Uncertainty and complexity in both existing institutional frameworks and policy outcomes mean that uncritical emulation of policies is perhaps both undesirable and unlikely. Institutions or policies may also be selected by agents of policy transfer irrelevant of their original purposes, as policy makers try to resolve different problems or pursue their normative ambitions. Policy transfer failure is likely to be exacerbated in developing and transitional countries (DTCs), which may lack the capacity to properly implement selected policies. Policy transfer processes are therefore contingent, with forms of adaptation and learning necessitated in practice (see Simmons et al. 2004; Stone 1999).

Specific policy transfer failures result from the neo-liberal underpinnings of the global best practices policy narrative for energy sector reform. The origins and policy constellation of these best practices are explored in detail below. In essence, they constitute a sector-specific version of heavily criticised neo-liberal one-size-fits-all development policies, and particular problems are evident with regard to DTCs. The focus on market pricing is likely to clash both with the institutional realities of energy markets on the ground and with other developmental objectives. Market pricing seems to be controversial even within the EU (Goldthau 2012: this book; Shaw 2012: this book) and potentially contradictory with the EU's own developmental (and environmental) objectives. The creation of strong regulatory agencies – the formal governance dimension – is likely to be a political problem, clashing with the institutional realities of regulation on the ground and is not subject to technocratic fixes.

This analysis takes place at the level of declaration (formally the basis of policy practice). What follows is a study of the EU's stated policies, which outline the attempt to enhance energy security by affecting a transformation of energy governance in the EU's partner countries. It is not a study of the politics of the EU's external energy relations, though the gap between *policy* and *politics* is recognised, with reference to empirical studies of both EU policy making and energy sector reform experiences in DTCs. With an explicit focus on the policies being promoted – global best practices for energy sector reform – an assessment of the EU's energy security strategy is provided. The prospects for this strategy are bleaker than is portrayed in the EU's key energy policy documents. EU policy makers, it seems, have failed to critically engage with and learn from past experience with policy transfer, making repetition of past mistakes more likely.

This chapter focuses on electricity sector reform within the broader EU energy security concerns. The study of energy tends to focus upstream on oil and gas, for example, which may suit the realist/security or liberal/market approaches that tend to predominate. A combination of factors, however, makes the downstream electricity sector critical to the political economy of energy in Europe and Russia. The high costs and long lead times suggest possibilities for cobweb cycles, while state failure to meet electricity demand can lead to severe political backlashes. Indeed, the electricity sector has historically been dominated by state-owned enterprises (SOEs), but since the 1990s, there has been a trend towards a market competitive industry structure. This transformation is ongoing and its consequences cut across numerous other areas of policy concern. In particular, the need for new regulatory frameworks to accompany reformed electricity sectors reflects broader shifts in the relationship between the state and the market.

The chapter proceeds by introducing the global best practices for electricity reform. Particular emphasis is placed on the expectations for DTCs, which are the EU's partner countries in the energy sector. A series of key EU policy documents are then unpacked, detailing the extent to which the global best practices policy narrative for energy sector reform is embedded in the EU's formal position on external energy relations. The reasons for this strategy being problematic are explored here. Through this approach, an alternative to existing research in this field is provided, focusing on the policies actually being advocated, while eschewing both market-ideological approaches to energy problems and narrow focuses on either energy security or the internal dynamics of EU policy making (Keating et al. 2012: this book).

2. Global best practices for energy sector reform

The global best practices for energy sector reform can be summarised as follows: unbundling, competition, regulation and privatisation (Keating 2006: 4–6). Unbundling, or industry restructuring, occurs when state-owned utilities are disaggregated into separate generation, transmission and distribution sub-sectors. Competition is introduced first in the generation and distribution sub-sectors, with liberalisation allowing for foreign entry into the sector. Indeed, competition is the second of the global best practices. The aim is to ensure that the price mechanism – the laws of supply and demand – determines all prices in the sector. 'True economic costs' are deemed critical to attracting private investors and

to raising efficiency in the energy sector (Bacon 1999: 3; Müller-Jentsch 2001: 10–11).

The third of the core global best practices is the provision of a new regulatory framework, necessitated by the changing role of the state from owner/operator to regulator. The regulatory framework is crucial: it determines the incentive structures that will attract the private sector and provides evidence of a 'credible' reform process, particularly to foreign investors. Success hinges upon an independent regulatory agent, free from short-term political pressure (which assumedly would have inflationary consequences) (Bacon 1999: 3; Berg 2000; Commission 2002: 11; Müller-Jentsch 2001: 10). The fourth of the core global best practices, and the centrepiece of the strategy, is to attract private participation and/or allow privatisation. This will provide the necessary capital investments and increase competition and efficiency. This, in turn, will lead to lower prices for consumers. Unbundled utility companies can be transformed into commercially viable entities and privatised, while the private sector builds/owns/operates new power plants following the independent power project (IPP) model (Bacon 1999: 7; Bayliss and Hall 2000: 3; Müller-Jentsch 2001: 10–11; Victor and Heller 2007: 9; World Bank 2001a: 12–14).

Global best practices are a kind of global 'benchmark' or 'standard' that serve as a policy narrative that drive neo-liberal structural reforms across a range of policy sectors (Cerny 2002: 202, 2010: 141; Hay 2011: 327; Keating 2006; Stone 2001, 2004; Tsingou 2004). This policy narrative emerged in the mid-1990s (see Berg 2000; Dunkerley 1995; Gray and Schuster 1998; IEA 1999; Izaguirre 1998; Lock 1995; Turkson and Wohlgemuth 2001; World Bank 1993, 1996, 2000, 2000a, 2001a). Policy narratives are useful tools for promoting policy transfer (Hay 2001; Kjær and Pedersen 2001; Stone 2002). The global best practices policy narrative offers both an explanation of energy sector inefficiencies and a set of solutions, which constitute the sum of energy sector-specific neo-liberal policy knowledge. Victor and Heller's (2007: 6) 'standard textbook model' is limited in that they provide a narrow, sector specific approach to a broader phenomenon. Helm's 'British model' (2003: 372) is also problematic, as while Britain was an important early reformer (Kuzemko 2012: this book) that contributed to the emergence of global best practices, so were New Zealand, California and several Latin American states (Müller-Jentsch 2001: 8–9; Victor and Heller 2007: 6–7).

Global best practices are in part derived from the structural adjustment conditionalities of the 1980s. The structural adjustment period reflected the neo-liberal view that state-led development had failed

(Leftwich 2000: 110; Simon 2008). While downplaying the existence of market failure in DTCs, neo-liberals argued that these problems resulted from government intervention, due to unavoidable government failure (Friedman 1962; Hayek 1944; Lal 1983). In the energy sector, this belief was empirically validated by the multiplicity of problems facing state-owned enterprises: inefficiencies in operation, finance, management, regulation and maintenance; massive over-employment; regular and chronic system failures; increasing sector costs and declining utility revenue (Keating 2006: 6; Müller-Jentsch 2001: 5; Victor and Heller 2007: 256–57). Policies such as liberalisation, free market competition, privatisation and the promotion of foreign direct investment became central to mainstream development strategies (Leftwich 2000: 110). Global best practices also reflect the rise of good governance, the neo-liberal response in the 1990s to the failures of structural adjustment. Good governance recognises the importance of a functional state, in regulatory terms, to properly functioning markets (Leftwich 2000: 109–22; Williams and Young 1994). In effect, the politics are brought back into neo-liberal understandings of political economy. This explains why global best practices also advocate a particularly neo-liberal regulatory framework in the form of quasi-state, 'independent' regulatory agencies.

3. A critical perspective on global best practices

However, the neo-liberal understanding of politics in good governance is technicist and depoliticised, recreating many of the problems of the structural adjustment era (Leftwich 2000: 105–06). This was borne out in the failures of the IMF's good governance-based interventions during the Asian Economic Crisis of 1997/98 (Beeson and Robison 2000; Feldstein 1998; Wade 1998). Neo-liberalism then entered a period of crisis, with the general applicability of 'one-size-fits-all' development policies, including structural adjustment economic policies and good governance political reforms, called into question (Stiglitz 2008: 53). Neo-liberalism has however been able to adapt, as the constitution of sets of global best practices – policies, institutions and governance arrangements – allows the economic and political imperatives of neo-liberalism to be applied on a sector-by-sector basis. These policy narratives allow neo-liberal policies to be promoted across key areas of the economy of DTCs, while attempting to avoid accusations of repeating past failures.

Rather than grass-roots approaches, a top-down system based on the expertise of foreign consultants is used to design reform processes, resulting in a decontextualised and depoliticised advocacy of global best

practices for electricity sector reform. In practice, post-hoc legitimisation exercises for global best practices policy transfer strategies (such as 'stakeholder consultation') have been utilised, but these have largely failed to ensure the support of key social coalitions (Keating 2006, 2011; Victor and Heller 2007: 302). These strategies have not been helped by the fact that independent power producers' (IPPs) processes have proven prone to allegations of corruption (Hall 2007: 16–17; Hall et al. 2009: 3; Keating 2011).

Clear problems with global best practices result from the clash between the neo-liberal policies being transferred and a set of developmental objectives common to DTCs. Indeed, Youngs (2009: 175–76) identifies resistance on the ground to global best practices energy sector reforms in North Africa, Russia and even sub-Saharan Africa precisely because the EU's stated developmental aims were seen to clash with its pro-market liberalisation policies for the energy sector. Policies to promote market-based pricing, for example, usually lead to higher energy prices in a historically state-subsidised sector. Privatisation in the energy sector has certainly caused price increases in DTCs (Hall et al. 2009: 11–12; see Haselip 2004: 5; see also Woods 2006). This results in socioeconomic problems, with a 'disproportionate impact on the poor' (Hall 2007: 16), and political problems for DTCs, who end up outlaying further expenditure so as to mitigate the social costs of energy sector reform (Keating 2006; Victor and Heller 2007: 259). Policies aimed at increased access to electricity, particularly rural electrification, are clearly in conflict with neo-liberal global best practices for energy sector reform (see Hall 2007; Hall et al. 2009; Keating 2006; Victor and Heller 2007: 7–8).

Private sector participation in the energy sector of DTCs is intended to resolve the shortage of investment capital. This is the carrot that attracts states to market solutions, the stick being the requirements for private participation in the energy sector from donors in return for aid in other areas. However, evidence suggests that private sector investment in DTCs has largely proved illusory (Hall 2007: 16). Where investment has occurred, the private sector needs to make a return on investment. This usually means that in order to attract such investors, the government needs to provide a long list of guarantees. These aim to mitigate the high risk to the private sector of these large investments, *by shifting risk to the government* (see also Woods 2006). In practice, the independent power producer (IPP) model has therefore turned out to be very expensive for governments in DTCs, where market reforms have in practice only been sustained through government subsidies (Hall 2007: 16–17; Hall et al. 2009: 3; Victor and Heller 2007: 258). Such contracts between

governments and the private sector may even *minimise* efficiency gains, as government guarantees of profit are a disincentive for further reforms (see Keating 2006; Victor and Heller 2007: 257–58). Capacity payments, in particular, have been a problem (Hall et al. 2009: 11; Keating 2006, 2011: 425). Consequently, rising electricity prices are understandably seen by citizens as a 'tax on inefficiency' (Keating 2011: 426), reinforcing grassroots opposition to global best practices energy sector reforms. Privatisation therefore will probably not relieve the government of financial responsibility for the energy sector.

Furthermore, no real competition appears to result from reform processes (Hall et al. 2009: 3). Part of the problem here flows from the limitations of the unbundling process – not all of the three sub-sectors (generation, transmission and distribution) are equally open to competition and private sector involvement. Generation in particular could be highly competitive and profitable, while transmission less likely to be so (see Victor and Heller 2007: 3–4). The distribution sub-sector in particular tends to see a single private distribution company taking over the state sub-sector company in practice (Keating 2006; Victor and Heller 2007: 7). The lack of competition resulting from reform processes feeds doubts about whether the efficiency gains of privatisation will eventuate (Hall et al. 2009: 13–14; see Sappington and Stiglitz 1987).

A lack of competition may be balanced out by the efficiency gains of bringing experienced private sector management into the energy sector. However, the neo-liberal logic underpinning privatisation must be further cast into doubt if in practice IPP projects are not being run by *private* foreign investors, but in fact by foreign *state-sector* investment companies (Keating 2006). It is the expertise of foreign governments or their parastatals which is in fact being called upon. Furthermore, evidence suggests that the IPP model, which seems to result only in combined-cycle gas plant power projects, clashes with the very environmental objectives that EU energy policy documents increasingly place emphasis upon (Hall et al. 2009: 3).

For energy sector global best practice(s), the good governance of marketised energy sectors in the DTCs hinges upon an independent regulatory agency. One of this agency's primary functions is to ensure market-based prices in the reformed electricity sector. Independent regulation however seems to be an intractable problem in DTCs, where the regulatory bodies resulting from reform processes lack either the capacity or the political will, or both, to properly exercise their role (Keating 2011: 425–26; Victor and Heller 2007: 3). The inability to develop regulatory strength in DTCs liberalised power sectors exacerbates the already

disproportionately negative impact of reform processes upon the poor (Dagdeviren 2009; Hall et al. 2009: 7).

4. European Union energy security policy and global best practices

The EU's energy security policies can only be understood in the context of this global best practice(s) policy narrative. The European Commission explicitly presents its policies as 'best practice' (Eberlein 2008: 78–79; see also Kalicki and Goldwyn 2005a: 575–76), but they are in fact *global* best practices, formulated and pursued by a range of actors, including the EU and international financial institutions such as the World Bank. It is through this policy narrative that the EU frames its energy security policy, in response to its perceived dependency upon energy imports, and its concerns with security of supply (and the need to create competition amongst suppliers) and environmental stress (Commission 2000, 2006: 3; see Kalicki and Goldwyn 2005a: 561; Nugent 2006: 376; Shaffer 2009: 129–32; Yergin 2005: 51–52; Youngs 2009: 2–3).

The energy security literature is narrowly focused on issues such as pipelines (see Shaffer 2009), while ignoring that fact that pipelines run two ways: they import energy supply to the EU, but they are also intended to export global best practices for energy sector reform. This secondary intent is the more significant, because pipelines can be disrupted, such that building pipelines simply shifts the security problem to the issue of the governance of these pipelines and the governance of energy matters in the states through which pipelines pass. Consequently, the transformation of energy governance in Europe's energy partners is the core objective of the EU's energy security strategy. This transformation is intended to promote cross-border regulatory harmonisation based on EU standards and will follow from the policy transfer of global best practices for energy sector reform. This is referred to in the broader literature as an 'EU external governance' strategy (Youngs 2009: 14–18; see Slaughter 2004; Young and Peterson 2006; Zielonka 2008).

The 2001 joint European Commission/World Bank publication *Private Participation in Mediterranean Infrastructure* clearly sets out the case for the promotion of global best practices for energy sector reform to DTCs. An explicit 'Check List of Best Practices' is included (Müller-Jentsch 2001: 10–11), and as a World Bank technical paper, this is intended as a description of *actual donor activities and existing practices*. The European

Commission Single Market Directive for Electricity (96/92/EC) (effective 19 February 1999), which promotes an internal EU strategy of global best practices for energy sector reform, is explicitly set out as the basis for development aid to Mediterranean partner countries (Müller-Jentsch 2001: 17). From 2001, then, energy sector best practices are evident in EU policy, though it must be recognised that the global best practices policy narrative is also becoming solidified as a result of EU policy making.

This position on energy and development is explanded in a series of EU policy documents. These clearly show that the energy sector global best practices constitute the EU's formal energy strategy with regard to *both* its internal and external environment (see Youngs 2007: 1). Four European Commission policy documents produced over the last decade are evaluated here. *Energy Cooperation with the Developing Countries* (Commission 2002) links EU energy policy to its development policy, which underpins the emerging EU energy security strategy. *Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy* (Commission 2006) sets out a common European external energy policy that hinges upon global best practices. Both the Strategic Energy Review, *An Energy Policy for Europe* (Commission 2007) and *Energy 2020: A Strategy for Competitive, Sustainable and Secure Energy* (Commission 2010), reinforce the position set out in the Green Paper.

In *Energy Cooperation with the Developing Countries*, the global best practices policy transfer agenda clearly underpins the energy component of the EU's aid strategy to DTCs. This document recognises that DTCs offer particular challenges in the energy policy area, given the lack of both human resources and institutional capacity. However, this is taken not as a barrier to policy transfer, but as an opportunity for policy transfer. The EU sees itself as being 'in a privileged position to help the DTCs develop their administrative capacities and energy policies' as well as more 'transparent regulatory structures' (2002: 11–12).

Global best practices regarding the role of the market in the energy sector are central to this document, which argues that DTCs need to ensure 'a pricing policy guaranteeing as far as possible that prices reflect costs'. Public subsidies are represented as a 'price distortion' and an 'obstacle to investments in energy efficiency'. Yet, as an example of the tensions within the global best practices approach, the Commission also recognises that 'it will be particularly important to keep the access to energy of the population at large as a high priority'. The document then calls for revised legislative, regulatory and financial frameworks in DTC energy sectors, as a crucial prerequisite for attracting private investment

in the energy sector. Rather than recognising the problems with this, the 2002 document states the EUs willingness to provide DTCS with institutional support in this regard. Finally, the EU aims to assist its energy partners in assessing 'the comparative advantages of public and private services' in recognising 'the role of deregulation' and in understanding the role of government in the energy sector 'in the context of privatisation' (2002: 12–14).

Given the difficulties of formulating a common EU-wide approach to energy issues, the 2006 *Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy* might be considered a watershed (Helm 2003: 374–85; Nugent 2006: 375–76; Shaffer 2009: 128; Youngs 2009: 22–23). The Green Paper presents that EU as the world leader in promoting energy efficiency and environmentally sustainable energy (Commission 2006: 4). The EU is also the world's biggest provider of development aid and so possesses the gravitas to be a global player in policy transfer in the energy sector (Commission 2002: 6). This document demonstrates how energy policy enmeshes EU development and security strategies and how the resulting external energy strategy is held together by global best practices (see Shaffer 2009: 131–32; Youngs 2009: 23). The EU's external approach reflects its internal energy policy logic pertaining to benefits of global best practices, particularly regarding security of supply and lower prices (Commission 2006: 3).

The EU's European Neighbourhood Policy (ENP) (Commission 2003, 2004) explicitly aims to bring states bordering the EU closer to the internal market. By creating a 'common regulatory space' of shared rules, the Green Paper argues that trade will be increased, market harmonisation and integration promoted, investment and growth increased and security of supply for all achieved (Commission 2006: 16). Although in the past EU energy policy focused on 'establishing binding rules at the international level' (Nugent 2006: 376), in the Green Paper a bilateral and regional strategy for creating shared rules is preferred. As the EU is not aiming for lowest common denominator regulations, but to expand the range of EU regulations, a comprehensive framework for policy transfer is in effect being set out. The Green Paper incentivizes this, with reference to EU investment into a broader pan-European energy community, as well as to other funding vehicles such as the EIB and the EBRD (Commission 2006: 16; see also Youngs 2009: 32).

The EU's focus on environmental stress in its external energy relations is increasingly clear (Nugent 2006: 376; Shaffer 2009: 128–29). The

Green Paper explicitly advocates using EU influence to increase global levels of research and development both in bilateral forums and through multilateral bodies (UN, IEA and G8), build a global emissions trading scheme and generate an international energy efficiency agreement. Crucially, these are all seen as mechanisms to export EU policies on energy and environment (Commission 2006: 16–17). The EU clearly seeks to integrate this environmental agenda into the global best practices for the energy sector (see Müller-Jentsch 2001: 10–11). However, in the main, the Green Paper focuses on achieving a 'more secure investment climate' through global best practices – the promotion of 'regulatory convergence' and 'competition' (Commission 2006: 17).

The Commission's 2007 Strategic Energy Review, *An Energy Policy for Europe*, largely reinforces the global best practices basis of the EU foreign energy security policy (Youngs 2009: 25). The strategic review's priorities are unbundling, competitiveness and a new regulatory framework, but this is all presented as a prerequisite for creating correct investment signals (Commission 2007: 10). This can only be intended to attract private investment, although explicit references to privatisation are absent. Youngs (2008: 28–29) notes the strong emphasis in this document on internal EU energy and environmental issues. However, the EU's policy objective of promoting internationally 'shared rules or principles' in the energy sector, based on the EU's own internal model (that of global best practices), is clearly expressed, as is the promotion of transparent legal frameworks in partner states (Commission 2007: 18–19; Youngs 2009: 25). The 2005 Energy Community Treaty is seen as a further mechanism for integrating third world countries with the EU energy policy framework (Commission 2007: 19). Overall, the strategic review clearly sets out the intention to secure the EU's energy supply by achieving *de facto* regulatory control of the suppliers' energy sectors.

> The EU should aim to build a wide network of countries around the EU, acting on the basis and shared rule or principles derived from EU energy policy.
>
> (2007: 19)

Energy 2020: A Strategy for Competitive, Sustainable and Secure Energy focuses on the importance for both security and sustainability of building an integrated and competitive internal EU energy market, based on market-determined prices (2010: 12). It therefore further embeds the EU foreign energy security policy in the global best practices policy narrative. The Energy Community Treaty is once again seen as a mechanism

for promoting market integration and 'regulatory convergence' based on EU rules (2010: 22). While competitiveness is highlighted as a key issue for EU external energy policy (2010: 20), there are no explicit references to the private sector. The discussion of the external dimension of EU energy policy instead refers to both 'investment security' and 'investment opportunity' (2010: 22) and so is clearly implicitly aimed at private sector participation. *Energy 2020* notes that the EU's common energy policy is now enshrined in Article 194 of the Lisbon Treaty (2010: 4) and calls for the same 'attention and policies' – the global best practices – designed for the internal EU market, to be applied to the EUs energy partners (2010: 13). This is an explicit energy security strategy (2010: 13), and it is seen by the Commission as critical, given that growing demand must be met with supply from DTCs (2010: 7).

5. Transnational regulatory harmonisation and EU energy security

As this set of documents makes clear, the core external targets for policy transfer are EU accession candidates (especially Turkey), Russia, its Mediterranean partners (North Africa and the Near East), the Balkans, the Caspian region, Ukraine and the former Soviet states in Central Asia. However, other DTCs in sub-Saharan Africa, Latin America and the Middle East are included in the EU's objective of policy transfer of global best practices, as are key energy consumers such as India and China (see Commission 2002: 6–9, 2006: 15–17, 2007: 18–20, 2010: 22; Müller-Jentsch 2001: 4; see also Council 2007: 19; Nugent 2006: 376; Shaffer 2009: 128–32; Youngs 2007: 1, 2009). Particular emphasis is placed on partner countries through which supply infrastructure, that is pipelines, will flow (Commission 2010: 13).

Harks (2010: 248) contends that EU energy policy is 'by definition' regional, but EU energy policy documents clearly seek greater reach than this. The limits of EU energy policy become clearer following Youngs' geo-political observation that European energy security policy faces a series of practical problems due to competition from emerging global energy actors such as India and China. In the context of increased bilateralism in energy relations, it is significant that such states do not promote global best practices energy sector reform (Youngs 2009: 125, 150, 174–76). However, problems with the EU energy security policy also result from the promotion of policy transfer of energy sector global best practice(s) to DTCs *per se*.

That the EU's plans for energy security hinge on integrating the energy of its partners into an EU-based transnational regulatory regime (Levi-Faur 1999: 183; see Eberlein 2008: 75) is not in itself surprising. Ensuring shared institutions and practices of energy governance, especially in regulatory terms, between the EU and its energy partners makes sense for the EU; after all, this has been the basis of multi-sectoral policy reform *within* the EU. However, outside the European integration context, the EU is casting itself as the transnational energy governance 'rule-maker' and its energy partners as 'rule-takers', creating legitimacy problems for the entire policy transfer process – the benefits of which, for DTCs in particular, are unclear (Larmour 2002: 152; Levi-Faur 2002: 2; Levi-Faur and Vigoda-Gadot 2006; Stone 1999: 57). This approach is unlikely, for example, to constitute a 'new Africa-Europe Energy Partnership' (Commission 2007: 25).

That DTCs must have ownership of development programmes is meant to be a key lesson that donors have learned from their past experience with development aid. The European Commission states that '. . . the ownership by the beneficiary countries of their development strategies is the key to the success of cooperation' (Commission 2002: 13). Yet, in the very next paragraph of *Energy Cooperation with Developing Countries*, global best practices are set out as non-negotiable in the energy sector.

> In order to meet the requirements concerning the opening-up of the market and promote private investment, an appropriate legislative and regulatory framework is necessary, in particular as regards regulation, the unbundling of activities, pricing and the promotion of private participation.
>
> (2002: 13)

The experience of development aid has been that if market solutions struggle to function in the absence of an appropriate system of governance, then building such a system – a legislative, regulatory and competition framework – is just as difficult. Yet, the administrative problems faced by DTCs with regard to energy sector regulation are presented by the European Commission in a simplistic manner, with the EU providing new systems of regulation, a new legal framework, and even providing training to the regulators. This amounts to treating energy sector regulation as a purely technical problem, and as Leftwich (2000) argues, all development strategies, including global best practice for energy sector reform, are *political*. Far from escaping from the problems

of the one-size-fits-all neo-liberal development strategies of the 1980s and 1990s, global best practices recreate all the technocratic flaws of these developmental ambitions in a compartmentalised, sector-specific format.

The European Commission argues that its emphasis on regulatory frameworks in the energy sector reforms reflects the emergence of a uniquely European 'regulatory capitalism' approach (Commission 2002: 14; see Shaffer 2009: 129; Youngs 2007: 8). Yet, this regulatory capitalism is neither new nor distinctively European (see Cerny 2010: 144–45; Jayasuriya 2005; Jordana and Levi-Faur 2004; Levi-Faur 1999; Moran 2003). The EU, in fact, does not appear to be 'reproducing its own constituent norms' (Youngs 2007: 2). Rather than a European social market economy, the Commission is promoting neo-liberal values of competition and commodification through these global best practices (Levi-Faur 1999: 179; see Cerny 1997, 2010; Slaughter 2004). The energy sector is in fact a particularly clear case of the EU's move from statist to liberalised regulatory regimes (Levi-Faur 1999: 182).

Yet, the neo-liberal model is resisted within Europe. Even in high-income countries, liberalisation has led to higher prices, lower usage of renewables, little or no efficiency gains, inadequate investment and consumers overall being worse off after reform processes (Anderson 2009; Hall et al. 2009: 3). In essence, the attractiveness of EU energy sector policies to potential emulators is reduced, because the EU has been unable or unwilling to implement these policies itself (Youngs 2007: 6–8, 2009: 31–38, 150, 174; see also Nugent 2006: 376–77). Youngs (2009) refers to this as 'model failure'. The West has advocated development policies that would be unacceptable back home in the past, particularly during the structural adjustment period (see Simon 2008). Nevertheless, 'model failure' provides another potential cause for policy transfer failure, resulting from incoherence or inconsistency on the side of the international community, rather than from causes internal to DTCs (see Keating 2011).

Furthermore, Young's research into the *politics* of EU energy security policy suggests that despite the EU's strong *stated* commitment to neo-liberal energy sector reforms, the substance of actual policies relating to its energy partners has not necessarily reflected either market principles or good governance (2009: 4–5, 47–48; see also Youngs 2007). Youngs uncovered a range of criticisms of the EU's energy security policy from within the EU policy community – from the technocratic assumptions, the naive focus on formal institutions such as legal systems and, indeed, the advocacy of overly simplistic, one-size-fits-all solutions to complex

problems (Youngs 2009: 39–40). The lack of good governance policies can be explained with reference to the extensive problems with this concept; it is sector-specific neo-liberal regulatory arrangements that are the hallmark of global best practices. However, lack of commitment to the market aspects of energy sector reforms is a substantive blow to any efficacy EU energy security *policy* might have laid claim to.

6. Conclusion

The EU's formal energy security strategy appears oblivious to the numerous problems that have faced market-led development in the 1980s and governance-style reforms of the 1990s to the problems that European states and other development actors have faced in achieving their energy sector objectives in DTCs in the past and to the actual energy sector reform experiences of DTCs. EU policy makers should face up to the potential for policy transfer failure, which implies adaptation or hybrid outcomes. The chances that reform outcomes will diverge from reform intentions are clearly exacerbated in DTCs and empirical evidence concerning the practical outcomes of global best practices based energy sector reforms in DTCs supports this position.

Victor and Heller's study of five large DTCs – Brazil, India, China, South Africa and Mexico – concludes that energy sector reform processes have led to stable, non-neoliberal 'hybrid' outcomes (Victor and Heller 2007: 260). These resulting power systems bear 'little resemblance' to the best practices model that was promoted (2007: 11). Hall et al. (2009: 7–8) point to resistance to the global best practices model in most large DTCs, including these same five states. Research into small African states leads to similar findings of policy transfer failure (Hall 2007; Keating 2006). This suggests that alternative bases for energy sector reform processes in DTCs could be developed. As the EU's energy partners are in the main DTCs, the starting point for the EU's energy policy framework should in fact be the practical experience of development aid and of energy sector reform over the last several decades.

The European Commission's view of reform processes in the energy sector appears far removed from the realities of poor DTCs. On the one hand, global best practices for electricity sector reform are derived from abstract neo-liberal theory. On the other, they reflect the experiences of OECD states with energy reform, where institutional frameworks and political and economic contexts are very different from DTCs. They do not, however, reflect the practical problems such policies have resulted

in, even in OECD states. This chapter has demonstrated why global best practices should be considered a problematic framework for the promotion of policy transfer. Indeed, it remains a matter of debate as to what exactly is 'best' about them. Policy transfer processes will in practice remain contingent upon domestic political economy and policy contradictions pertaining to the external agents of policy transfer. The likelihood of policy transfer failure, in the form of outcomes widely disparate from those promised in theory and at the early stages of the reform process, will remain high.

In particular, the promotion of market-based pricing appears to contradict a range of developmental and environmental objectives, such as providing affordable energy to all, using the energy sector to subsidise and hence promote other sectors of the economy, or the promotion of renewable energy sources. In practice, the successful expansion of access to electricity in DTCs has hinged upon public sector investment, explicitly designed to promote broader access, whereas privatisation has only served to make electricity less affordable. A further dynamic of energy governance in Europe and Russia is evident in the disparity Youngs (2009) identifies between analysis of EU energy security policy and the EU's practical failure to promote global best practices for energy sector reform, both within its own borders and in its dealings with partner countries. Given this, the plan to promote EU energy security through neo-liberal, global best practices based energy sector policy transfer to partner countries is unlikely to function in the way that the European Commission envisages.

Bibliography

Anderson, J.A. (2009). 'Electricity Restructuring: A Review of Efforts around the World and the Consumer Response', *The Electricity Journal*, 22(3): 70–86.

Bacon, R. (1999). 'A Scorecard for Energy Reform in Developing Countries', *Viewpoint*, Note No. 175, April. The World Bank Group – Finance, Private Sector, and Infrastructure Network, Washington DC.

Bayliss, K. and D. Hall (2000). *Independent Power Producers: A Review of the Issues*, Public Services International Research Unit (PSIRU), University of Greenwich.

Beeson, M. and R. Robison (2000). 'Interpreting the Crisis', in Robison, R. et al. (eds.), *Politics and Markets in the Wake of the Asian Crisis*. London: Routledge.

Berg, S. (2000). 'Developments in Best-Practice Regulation: Principles, Processes and Performance', *Electricity Journal*, 13(6): 11–18.

Campbell, J. and O. Pedersen (eds.) (2001). *The Rise of Neoliberalism and Institutional Analysis*. Princeton: Princeton University Press.

Cerny, P. (1997). 'Paradoxes of the Competition State: The Dynamics of Political Globalization', *Governance and Opposition,* 32(1): 251–74.
Cerny, P. (2002). 'Webs of Governance and the Privatisation of Transnational Regulation', in Andrews, D., Henning, C.R. and Pauly, L. (eds.), *Governing the World's Economy*. Ithaca: Cornell University Press.
Cerny, P. (2010). *Rethinking World Politics: A Theory of Transnational Neopluralism*. Oxford: Oxford University Press.
Commission of the European Communities (2000). *Towards a European Strategy for the Security of Energy Supply*, COM(2000)769, Brussels: European Commission, June.
Commission of the European Communities (2002). *Energy Cooperation with the Developing Countries*, COM(2002)408, Brussels: European Commission, 17 July.
Commission of the European Communities (2003). *Wider Europe – Neighbourhood: A New Framework for Relations with our Eastern and Southern Neighbours*, COM(2003)104, Brussels: European Commission, 11 March.
Commission of the European Communities (2004). *European Neighbourhood Policy: Strategy Paper,* COM(2004)373, Brussels: European Commission, 12 May.
Commission of the European Communities (2006). *Green Paper: A European Strategy for Sustainable, Competitive and Secure Energy*, COM(2006)105, Brussels: European Commission, 8 March.
Commission of the European Communities (2007). *An Energy Policy for Europe*, COM(2007)1, Brussels: European Commission, 10 January.
Commission of the European Communities (2010). *Energy 2020: A Strategy for Competitive, Sustainable and Secure Energy*, COM(2010)639, Brussels: European Commission, 10 November.
Council of the European Union (2007). 'European Action Plan (2007–2009): Energy Policy for Europe (ENE)', ANNEX 1 of *Presidency Conclusions – 8/9 March 2007*, 7224/1/07 REV 1 ANNEX 1, Brussels: European Council, 2 May.
Dagdeviren, H. (2009). 'The Limits to Competition and Regulation in Privatized Electricity Markets', *Annals of Public and Cooperative Economics*, 80(4): 641–64.
Dolowitz, D. and D. Marsh (2000). 'Learning from Abroad: The Role of Policy Transfer in Contemporary Policy Making', *Governance*, 13(1): 5–24.
Dunkerley, J. (1995). 'Financing the Energy Sector in Developing Countries: Context and Overview', *Energy Policy*, 23(11): 929–39.
Eberlein, B. (2008). 'The Making of the European Energy Market: The Interplay of Governance and Government', *Journal of Public Policy*, 28(1): 73–92.
Feldstein, M. (1998). 'Refocusing the IMF', *Foreign Affairs*, 77(2): 20–33.
Friedman, M. (1962). *Capitalism and Freedom*. Chicago: Chicago University Press.
Gault, J. (2004). 'EU Energy Security and the Periphery', in Dannreuther, R. (ed.), *European Union Foreign and Security Policy: Towards a Neighbourhood Strategy*. London: Routledge.
Gray, R.D. and J. Schuster (1998). 'The East Asian Financial Crisis – Fallout for Private Power Projects', *Public Policy for the Private Sector*, Note No. 146, August. The World Bank Group – Finance, Private Sector, and Infrastructure Network.
Hall, D. (2007). *Energy Privatisation and Reform in East Africa*, Public Services International Research Unit (PSIRU), University of Greenwich, 12 January.
Hall, D., S. Thomas and V. Corral (2009). *Global Experience with Electricity Liberalisation*, Public Services International Research Unit (PSIRU), University of Greenwich, December.

Harks, E. (2010). 'The International Energy Forum and the Mitigation of Oil Market Risks', in Goldthau, A. and J.M. Witte (eds.) *Global Energy Governance: The New Rules of the Game*. Washington DC: Brookings Institution Press, pp. 247–68.

Haselip, J. (2004). 'The Globalisation of Utilities Liberalisation: Impacts upon the Poor in Latin America', *CSGR Working Paper No.138/04*, June, Centre for the Study of Globalisation and Regionalisation (CSGR), University of Warwick.

Hay, C. (2001). 'The "Crisis" of Keynesianism and the Rise of Neoliberalism in Britain: An Ideational Institutionalist Approach', in Campbell, J. and Pedersen, O. (eds.), *The Rise of Neoliberalism and Institutional Analysis*. Princeton: Princeton University Press, pp.193–218.

Hay, C. (2011). 'Globalization's Impact on States', in Ravenhill, J. (ed.), *Global Political Economy*, 3rd ed., Oxford: Oxford University Press, pp.312–44.

Hayek, F.A. (1944). *The Road to Serfdom*. Sydney: New Century Press.

Helm, D. (2003). *Energy, the State, and the Market: British Energy Policy since 1979*. Revised ed., Oxford: Oxford University Press.

International Energy Agency (IEA) (1999). *Electricity Market Reform: An IEA Handbook*. Paris: OECD/IEA.

Izaguirre, A.K. (1998). 'Private Participation in the Electricity Sector – Recent Trends', *Public Policy for the Private Sector*, Note No. 154, September. The World Bank Group – Finance, Private Sector, and Infrastructure Network.

Jayasuriya, K. (2005). *Reconstituting the Global Liberal Order: Legitimacy and Regulation*. London: Routledge.

Jordana, J. and D. Levi-Faur (eds.) (2004). *The Politics of Regulation: Institutions and Regulatory Reform for the Age of Governance*. Cheltenham, England: Edward Elgar.

Kalicki, J.H. and D.L. Goldwyn (2005a). 'Conclusion: Energy, Security, and Foreign Policy', in Kalicki, J.H. and Goldwyn, D.L. (eds.), *Energy Security: Towards a New Foreign Policy Strategy*. Baltimore: Johns Hopkins University Press, pp.561–78.

Kalicki, J.H. and D.L. Goldwyn (eds.) (2005b). *Energy Security: Towards a New Foreign Policy Strategy*. Baltimore: Johns Hopkins University Press.

Keating, M.F. (2006). 'Global Best Practice(s): Electricity Sector Reform in Uganda', *CSGR Working Paper No. 192/06*. January, Centre for the Study of Globalisation and Regionalisation (CSGR), University of Warwick.

Keating, M.F. (2011). 'Can Democratization Undermine Democracy? Economic and Political Reform in Uganda', *Democratization*, 18(2): 415–42.

Kjær, P. and O. Pedersen (2001). 'Translating Liberalization: Neoliberalism in the Danish Negotiated Economy', in Campbell, J. and Pedersen, O. (eds.), *The Rise of Neoliberalism and Institutional Analysis*. Princeton: Princeton University Press, pp. 219–48.

Lal, D. (1983) *The Poverty of Development Economics*. London: Institute of Economic Affairs.

Larmour, P. (2002). 'Policy Transfer and Reversal: Customary Land Registration from Africa to Melanesia', *Public Administration and Development*, 22: 151–61.

Leftwich, A. (2000). *States of Development*. Cambridge: Polity.

Levi-Faur, D. (1999). 'The Governance of Competition: The Interplay of Technology, Economics and Politics in European Union Electricity and Telecom Regimes', *Journal of Public Policy*, 19(2): 175–207.

Levi-Faur, D. (2002). 'Herding Towards a New Convention: On Herds, Shepherds, and Lost Sheep in the Liberalization of Telecommunications and Electricity Industry', *Nuffield College Working Paper in Politics, W6-2002*, Oxford.

Levi-Faur, D. and J. Jordana (2006). 'Strengthening Regulatory Agencies: Institutional Designs for Autonomy, Accountability and Professionalism'. Estudio especializado para la Primera Conferencia Internacional sobre Corrupción y Tranparancia: Debatiendo las Fronteras entre Estado, Mercado y Sociedad, Cuidad de México, 23–25 de marzo de 2006.

Levi-Faur, D. and E. Vigoda-Gadot (2006). 'New Public Policy, New Policy Transfers: Some Characteristics of a New Order in the Making', *International Journal of Public Administration*, 29(4–6): 247–62.

Lock, R. (1995). 'Financing of Private Power Development and Power Sector Reform in Emerging Nations: Am Essential Nexus?', *Energy Policy*, 23(11): 955–65.

Moran, M. (2003). *The British Regulatory State: High Modernism and Hyper-Innovation*. Oxford: Oxford University Press.

Müller-Jentsch, D. (2001). 'The Development of Electricity Markets in the Euro-Mediterranean Area – Trends and Prospects for Liberalization and Regional Integration.' *World Bank Technical Paper No. 491*. World Bank/European Commission Programme on Private Participation in Mediterranean Infrastructure (PPMI), Washington DC.

Nugent, N. (2006). *The Government and Politics of the European Union*, 6th ed., Hampshire: Palgrave Macmillan.

Robison, R., M. Beeson, K. Jayasuriya and H-R. Kim (eds.) (2000). *Politics and Markets in the Wake of the Asian Crisis*. London: Routledge.

Sappington, D. and J. Stiglitz (1987). 'Privatization, Information and Incentives', *Journal of Policy Analysis and Management,* 6(4): 567–82.

Shaffer, B. (2009). *Energy Politics*. Pennsylvania: University of Pennsylvania.

Simmons, B., F. Dobbin and G. Garrett (2004) *Introduction: The International Diffusion of Liberalism*, Paper Proposed as Article 1, IO Special Issues on International Diffusion of Liberalism, 21 June 2004. Available at: http://www.wcfia.harvard.edu/conferences/internationaldiffusion/Papers%20Revised/Introduction.pdf, date accessed 5 January 2005.

Simon, D. (2008). 'Neoliberalism, Structural Adjustment and Poverty Reduction Strategies', in Desai, V. and Potter, R. (eds.) *The Companion to Development Studies*, 2nd ed., London: Hodder.

Slaughter, A. (2004). *A New World Order*. Princeton: Princeton University Press.

Stiglitz, J. (2008). 'Is there a Post-Washington Consensus Consensus?', in Serra, N. and Stiglitz, J. (eds.), *The Washington Consensus Reconsidered: Towards a New Global Governance*. Oxford: Oxford University Press.

Stone, D. (1999). 'Learning Lessons and Transferring Policy across Time, Space and Disciplines', *Politics*, 19(1): 51–59.

Stone, D. (2001). 'Learning Lessons, Policy Transfer and the International Diffusion of Ideas', *CSGR Working Paper No. 69/ 01*. Centre for the Study of Globalisation and Regionalisation (CSGR), University of Warwick.

Stone, D. (2002). 'Knowledge Networks and Global Governance', Paper for the *Inaugural Conference of the South Asian Research Network (SARN) on Law, Gender and Governance*, University of Warwick, 27 August.

Stone, D. (2004). 'Transfer Agents and Global Networks in the "Transnationalization" of Policy', *Journal of European Public Policy*, 11(3): 545–66.

Tsingou, E. (2004). 'Policy Preferences in Financial Governance: Public Private Dynamics and the Prevalence of Market-Based Arrangements in the Banking Industry', *CSGR Working Paper* 131/04. March, Centre for the Study of Globalisation and Regionalisation (CSGR), University of Warwick.

Turkson, J. and N. Wohlgemuth (2001). 'Power Sector Reform and Distributed Generation in Sub-Saharan Africa', *Energy Policy*, 29: 135–45.

Victor, D. and T.C. Heller (2007). 'Introduction and Overview', Chapter 1 in Victor, D. and T.C. Heller (eds.) *The Political Economy of Power Sector Reform*. Cambridge: Cambridge University Press.

Wade, R. (1998). 'The Asian Debt-and-Development Crisis of 1997-?: Causes and Consequences', *World Development,* 26(8): 1535–53.

Williams, D. and T. Young (1994). 'Governance, the World Bank and Liberal Theory', *Political Studies*, 42(1): 84–100.

Woods, B. (2006). *A World Without Water*. Documentary. Channel 4, UK, 29 April.

World Bank (1993). *The World Bank's Role in the Electric Power Sector: Policies for Effective Institutional, Regulatory and Financial Reform,* Washington DC.

World Bank (1996). *Rural Energy and Development: Improving Energy Supplies for Two Billion People*, Washington DC.

World Bank (2000). *Fuel for Thought: An Environmental Strategy for the Energy Sector*. Prepared by the Environment Department, the Energy, Mining and Telecommunications Department, and the International Finance Corporation, Washington DC, June.

World Bank (2000a). *A Brighter Future? Energy in Africa's Development*. Africa Energy Team, World Bank, Washington DC.

World Bank (2001a). *The World Bank Group's Energy Program: Poverty Reduction, Sustainability and Selectivity*. Energy and Mining Sector Board, The World Bank Group, December 2001.

Yergin, D. (2005). 'Energy Security and Markets', in Kalicki, J.H. and D.L. Goldwyn (eds.), *Energy Security: Towards a New Foreign Policy Strategy*. Baltimore: Johns Hopkins University Press, pp.51–64.

Young, A. and J. Peterson (2006). 'The EU and the New Trade Politics', *Journal of European Public Policy*, 13(6): 795–814.

Youngs, R. (2007). 'Europe's External Energy Policy: Between Geopolitics and the Market', *CEPS Working document No. 278*, Centre for European Policy Studies, November.

Youngs, R. (2009). *Energy Security: Europe's New Foreign Policy Challenge*. Oxon: Routledge.

Zielonka, J. (2008). 'Europe as a Global Actor: Empire by Example?', *International Affairs*, 84(3): 471–84.

Part II
Beyond Domestic Contexts

5

Energy Efficiency Regimes: Possibilities and Limits of Best-Practice Transfer between Europe and Russia

Andrei V. Belyi and Ksenia Petrichenko

1. Introduction

In just over a decade, energy efficiency has become a high priority of energy policies of many industrialised nations and has emerged as an objective in transition economies. Energy efficiency is associated with reducing energy input necessary for an economic output, or in other terms, to decrease energy intensity. Energy efficiency is closely related to the structural changes, which occur in a context of practices, norms and political values, which shape societal development. There is a need to define energy efficiency policies within the context of resource regimes at national levels.

A definition of a regime can be borrowed from O. Young's conception, as an institutional framework set by an interrelation between public authorities and private firms aimed at improving the usage of natural resources. According to O. Young, natural resources are part of a complex relationship between the economy and the ecosystem (Young 1982: 10–12). Moreover, energy efficiency regime analysis allows for the depiction of a clear picture of innovation in energy sector. Later works of scholars resulted in a nuanced difference between the support of a specific technology on one hand and the building up of a sensible innovation policy on the other (Mitchell 2008). This paper suggests that regime analysis is a useful tool in understanding national differences between the implementation of policies. Indeed, energy efficiency policies should be considered within a general context of a country's energy

policy, which starts with priority and target definition and ends with implementation and impact. It is important to note that the largest part of the success of energy efficiency policies can be considered to be in the implementation process rather than in the policy design (Stevens 2000).

In this chapter, we are going to define various nuances of energy efficiency regimes, particularly at the level of implementation in the Europe-Russia area. Energy efficiency is the only area, where the interests of Europeans and Russians seem in some respects to match (Douma 2007: 51–95). It is widely recognised as a particular source of energy in Europe and is clearly recognised as an opportunity for Russia. But as the EU Member States move increasingly towards developing a non-hydrocarbon economy, Russia is also rather concerned with the future predictability of oil and gas demand in Europe. Hence, the general objectives are somehow contradictory, in addition to methods of implementation.

An explanation of those phenomena can be found in the differences between energy efficiency regime priorities in the EU and Russia. In addition to that, implementation levels differ between EU member states and Russia and even between the EU countries themselves. As the most illustrative example, energy efficiency in buildings will be considered here as a specific case study. Thereafter, we select a series of primary policy mechanisms, which exist in Germany, Russia and the UK and then contrast varying types and degrees of regime implementation. Lastly, we attempt a comparative analysis of factors which influence discrepancies of regimes. On these grounds, we would argue that policy learning does take place in energy efficiency, for example in adopting similar support mechanisms. Furthermore, such policy learning can be defined as a form of best practice transfer which may address various support mechanisms such as command-and-control measures, market and budgetary mechanisms as well as attempts to increase public awareness. In our view, however, any hypothetical EU-Russia best-practice transfer in energy efficiency promotion mechanisms is conditioned to the specificities of Russian resource and energy efficiency regime.

2. Energy efficiency targets within ever-evolving energy structures

A resource regime in energy efficiency favours an innovative approach to energy conservation. It includes general objectives and priorities of

energy policy, which also take into consideration energy efficiency. A distinction between general structural, and institutional factors should be considered while analysing energy efficiency policies. In particular, structural factors can influence energy intensity. For example:

- Colder climate and larger distances contribute to higher energy intensity;
- Economies of scale may contribute to large-scale centralised energy distribution, which assumes higher losses in transmission than, for example, short distance energy distribution systems;
- Service-based economies are usually more energy efficient, as measured by energy intensity, than heavily industry-based economies.

At the same time, institutional factors are related to regime formation, in other words, the position to which decision makers allocate the issue within the general economic strategy. On these grounds, we can observe that energy efficiency prioritisation varies from country to country and is conditioned by a number of such institutional factors (Mitchell 2008: 94):

- The level of policy commitment to energy efficiency (i.e. setting binding targets, setting priorities). In Germany, energy efficiency has been a policy priority since the1970s, whereas the UK has focused more on market liberalisation in the energy sector. Russian endowment with oil and gas resources has delayed energy efficiency as a priority at the political level.
- Involvement of pressure groups (i.e. environmental NGOs), which may have an impact on setting environmental priorities. Again, in Germany the influence of NGOs is visible at the very political level (i.e. existence and popularity of the Green Party), whereas in the UK their influence is much less evident, and it is almost absent in Russia.
- Consumers may get involved within energy efficiency regimes (i.e. through the acceptance of price increases). Again, unlike in some European States, the energy tariff issue remains a very hot political issue in Russia. In Germany, the 'willingness to pay' for the environment is certainly higher than in the UK.

Given these general factors, our comparative analysis will be focused on the national specificities of energy efficiency promotion and energy efficiency regime setting in Germany, the UK and Russia.

2.1 The emergence of energy efficiency regimes in Western Europe

Since the oil shocks of the 1970s, it has been argued that energy market transformation has become an important objective of many industrialised nations (Steven 2000). Since the 1970s, energy structures of most industrialised nations have been reshaped. Supplies have been reduced, and prices have subsequently risen, stimulating new technologies in the hydrocarbon sector such as the development of drilling technologies, lightweight marine platforms and improving recovery rates (Criqui et al. 2000: 65–70). In parallel, innovation policies have conditioned a higher elasticity towards oil markets, which has reduced the vulnerability of economic systems to fluctuations related to energy imports. According to recent figures produced by the Cambridge Energy Research Associates (CERA), in 1980 most European countries needed approximately 0.89 barrels of oil to get 1000 USD of real GDP growth. Currently, they only need 0.63 barrels of oil to produce the same 1000 USD (Yergin 2008). As demonstrated in Table 5.1, a particular element of change consists in the rise of electricity consumption compared to the relative decrease of fossil fuels in the global fuel mix.

From an institutional viewpoint, it could be argued that an energy efficiency regime formation has started to take shape in most industrialised countries. It should be noted that since the early 1990s energy efficiency regime formation also started to take shape at the supranational level in Europe. In 1992, the first European Framework Directive on Energy Efficiency (Directive 92/75/EU) was adopted, which presented an outline for future specific actions such as labelling and standard-setting for various end-use products.

Table 5.1 Trends in energy consumption 1973–2008

Sector	1973 (%)	2008 (%)
Electricity	10	17.2
Gas	14	17
Oil	48	41
Traditional biomass	13	12.7
Coal	13.5	9
New alternative energy technologies	1.5	3.1

Sources: Data taken from International Energy Agency, World Energy Outlook (2010). Table compiled by the authors.

Partly as a consequence of this, energy efficiency has been evolving into an integral part of national energy policies in many European states (Roggenklamp et al. 2007: 1349–51). General targets have been substituted by a number of specific energy efficiency directives which have been adopted. Among others, specific Directives address the particular field of energy efficiency in buildings. The latest 'Building Directive' (Directive 2010/31/EU) goes in line with the EU's ambitious '20–20–20' objectives (Directive 2009/28/EC), which requires a better performing market design for new technologies. In the new context, the EU's objectives are also being framed for energy efficiency in general. The impact of EU Directives on energy efficiency policy may be reflected in the implementation of certain national measures. At the level of implementation, important specificities between the countries have been observed because energy policy itself remains a shared competence of the EU and individual Member States.

Important differences have been then observed between European countries, in particular between the largest economies of the EU. Both Germany and the UK have decreased their energy efficiency based on the afore-mentioned general structural trend. Graph 5.1 hereafter demonstrates a greater decrease, however, in UK long-range energy intensity compared to Germany; however, actual energy efficiency regime implementation, as observed below, has performed better in Germany (Geller et al. 2006).

Our interest lies, therefore, in an analysis of those political economy factors which have served to promote energy efficiency and which can assist in formulating a deeper analysis than energy intensity indices alone. In terms of regime formation, the two countries are in fact quite different and, therefore, the level of energy efficiency implementation has been different as well. In terms of the implementation of concrete energy efficiency measures and technologies, Germany appears to have been more successful in contrast to the energy intensity figures demonstrated above.

German energy efficiency policy started to emerge well before the UK's. Decreasing energy intensity and environmental protection had already been stated as important and specific energy policy objectives in the 1970s. By 1974, the Bunds-Immissions-Schutzgezetz, an air emissions protection law, had been introduced. Although the law did not directly address energy efficiency, it importantly constituted the first step in integrating sustainable development into energy policy practice (Pielow et al. 2007: 694–95). Later, between 1977 and 1983, a concrete policy framework of energy efficiency promotion was introduced within

the 'Thermal Insulation Ordinance' which regulated heating energy demand. Heating systems were addressed via the Heating Operation Ordinance (from 1978 to 1989) and the Heating Installation Ordinance (from 1979 to 1994). The latter two ordinances were amended in 1982 and combined in 1989 into the Heating Installations Ordinance and again amended in 1994. In addition, from 1988 to 2002 the Small-Scale Combustion Plant Ordinance was in force, covering the limitation of the maximum exhaust losses of boilers. However, all these regulations were further amended in 2002 after the adoption of the new Energy Conservation Ordinance (Pielow et al. 2007: 698–701].

Since 1990, Germany was the first country in Europe to establish a legislative framework to support the development of renewable energy (EEWärmeG). The law introduced a subsidy system called the 'feed-in tariff', which allowed a generator of renewable energy, wind for instance, to cover its costs. In turn, at the level of energy demand, households were enabled to use renewable energy produced via decentralised generators.

Following this, the German Energy Industry Act, Energiewirtschaftsgesetz, of 2005 stipulated the following energy efficiency targets:

- Reduce German energy intensity by 50 per cent by 2010;
- International climate regime commitments requiring countries to reduce greenhouse gas emissions by 21 per cent by 2012.

In addition, Germany adopted a new Energy Efficiency Strategy (Energieeffizienzplan 2008) where the country recognises that the continuous increase of energy efficiency in all sectors is key to all German energy policy fields. Interestingly, energy security is considered as a service of general interest, and this influences the degree of public, both Federal and regional, support for innovative energy policy (Ehlers 2010: 205–06).

Unlike Germany, UK energy policy priorities have been primarily focused on energy market privatisation and liberalisation over this time period. Since the 1980s, competition has been supported and encouraged in almost all parts of the energy industry. Plentiful availability of domestic oil and natural gas arguably contributed to the security of supply. Moreover, considerable coal to gas conversion, which occurred in the aftermath of energy market liberalisation, and lower coal sector subsidies, contributed to the overall decreases in energy intensity (Daw 2007: 1169–258). Given that previous state expenditure had delivered gas and electricity overcapacity, the context was rather favourable for

the process of privatisation and liberalisation. As energy sources, oil, gas and power became tradable commodities, and market actors were incentivised to invest in energy loss reduction. In addition, coal-to-gas conversion has accelerated since the more recent gas market liberalisation. Therefore, the UK model appeared, intentionally or not, to link energy efficiency with liberalisation (Ehlers 2010: 343–62; Helm 2004: 347).

However, progress in energy efficiency has proven ultimately to be more effective in Germany than in the UK. Therefore, a deeper political economy analysis allows us to cast a critical eye over energy intensity indices, such as demonstrated in Figure 5.1. Indeed, energy efficiency can be improved either through a general economic trend or through the formation of specific energy efficiency regimes. Although both factors played a role in the German and UK examples, we can see that a regime formation has been clearer in the case of Germany.

However, the UK domestic energy sector is being challenged now by dwindling oil and gas reserves as well as decreasing investment in power sector capacity (Daw 2007: 1259). Arguably, as a result of these challenges, we can observe a growing focus towards energy efficiency regimes. Within this new context, the Energy White Papers of 2003 and 2007 both emphasised the need for ongoing energy efficiency improvements (DTI 2003: 34, 2007: 48). A new policy design has been outlined by UK government officials which has been designed to forge ahead with

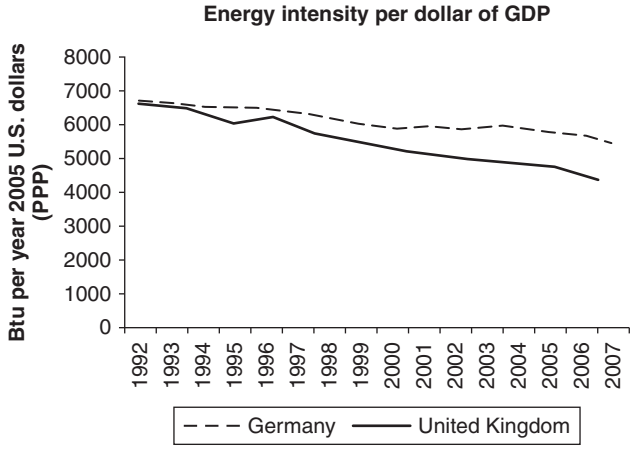


Figure 5.1 Dynamics of energy intensity in Germany and the UK
Source: Constructed based on U.S. EIA (2007).

the implementation of energy efficiency policies (DTI 2006: 11). Furthermore, the energy policy is now being shaped within the context of specific climate change mitigation and energy efficiency improvement targets. Hence, it is evident that the UK has started to pursue the implementation of specific energy efficiency policies and technologies much later than Germany.

2.2 Energy efficiency policy in Russia

In contrast to Germany and the UK, Russia's energy intensity structures are much less favourable. There are a number of reasons for this, starting with harsh climate conditions, geography and industry structure. Under the Soviet command economy, the availability of energy was long considered to be a 'right' rather than a commodity, good or service. Therefore, the socioeconomic structure favoured large-scale energy intensive supply and energy-consuming industries. The Russian residential sector, for instance, contains the world's longest district heating and water distribution systems, which are inefficient and often outdated. Hence, the capital cost of energy efficiency implementation would be much higher than in other European states.

Moreover, the Russian energy sector is quite remarkable in that there was a sharp decrease of energy consumption per capita, whilst, at the same time, there was an increase in the energy intensity during the transition process to a more market-oriented economy. Similarly to

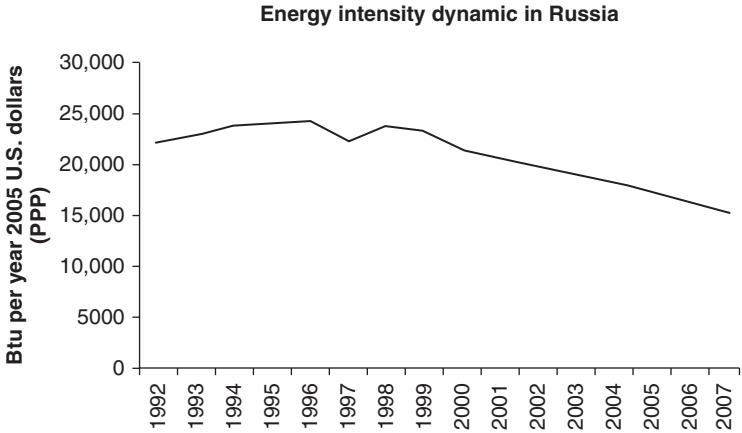


Figure 5.2 Dynamics of energy intensity in Russia
Source: Constructed based on U.S. EIA (2007).

Table 5.2 Energy intensity and energy per capita in Russia 1990–99

	TPES/GDP		TPES/Inhabitant	
	1990	**1999**	**1990**	**1999**
Russia	1.6	1.87	5.85	4.12

Source: Data taken from International Energy Agency (2002). Table compiled by the authors.

the UK, energy intensity then decreased during the 2000s because of the decrease of heavy industry within the overall economic structure (Bushuev and Troitsky 2004: 6–11).

Such historical and economic conditions in the country constrain the development of energy efficiency policy greatly. Energy intensity is hence at least twice as high as in the relatively more service-oriented European countries.

These historical factors have contributed to the slow process of prioritising energy efficiency. The first time the concept of energy efficiency appeared in Russian state policy was in the Energy Strategy of Russia 1995 (IEA 1995: 263–313). The Strategy set a goal to radically reduce the use of material, labour and natural resources to satisfy the needs of society with regard to energy (IEA 1995: 263–311).

It is interesting to note, however, that the energy efficiency regime only started to take shape in 2009, with the adoption of a new Energy Strategy, alongside legally binding legislation on energy efficiency (Ministry of Energy 2009). The new Strategy proposes certain specific implementation measures in energy efficiency. The most important amongst them are the development of integrated legislation and a regulation system for energy efficiency measures. In addition, measures include the creation of a market for energy services, development of a system of adequate domestic energy prices by means of their incremental regulated liberalisation, stimulation of investment activities and the development of norms and standards to promote energy efficiency. The main reason for the shift has been explained by a growing perception that the energy efficiency of both domestic and export markets needs to increase. Unlike Germany and the UK, Russia is not concerned about fuel dependency due to large indigenous supplies. Fuel abundance constitutes the major reason for agents' unwillingness to further invest into energy conservation. Hence, the difference between Russia and the afore-mentioned European States is mainly reflected at the level of implementation.

Between 1995 and 2009, the idea that energy efficiency should be achieved within the Russian energy policy has been transforming from a general voluntary declaration to specific targets. High level of energy losses and growing domestic energy demand have arguably influenced the adoption of new targets in energy efficiency. Therefore, the Strategy of 2009 also reflects the shift in the government's attitude towards energy efficiency. A question is now arising about the possibility of adopting new policy measures, which would contribute to delivering the newly emerged efficiency targets.

Indeed, new legislation provides a possibility for energy efficiency support mechanisms (Russian Energy Efficiency Law 2009). The new Law provides a set of requirements applicable for most building types, as well as architectural, functional, technological, constructive, engineering and technical solutions designed to improve the energy efficiency of buildings, construction projects, and separate elements of buildings, appliances and equipment. The Russian Energy Efficiency Law of 2009 includes provisions on the mandatory installation of energy metering systems and energy efficiency lighting. Although it applies certain penalties for non-compliance, it lacks strong and straightforward financial incentives for energy efficiency improvements (Belyi and Petrichenko 2011).

In summary, we observe that the development of energy efficiency prioritisation started to take shape significantly later than in Europe. Moreover, the policy orientation differs from that of EU Member States. Fuel abundance still limits the level of implementation of the newly emerging policy framework. As has been suggested above and as will be demonstrated in the next part of this chapter, the Russian institutional setting, at least up to now, has not created fertile ground for energy efficiency implementation.

3. Case of energy efficiency regime implementation: Building sector

In energy efficiency implementation analysis, the example of the building sector is both important and illustrative. Firstly, the building sector represents about a third of world energy consumption (IPCC 2007). Secondly, this sector provides great lower cost solutions to the problem of energy savings and Greenhouse Gas (GHG) emissions reduction (Ürge-Vorsatz and Novikova 2008: 642–59). Third, energy efficiency in buildings cannot be limited to cost-benefit analyses in part because it involves behavioural attitudes of actors. The decrease of transaction costs and other not-directly monetised factors such as health and

productivity improvement of inhabitants and employees, mortality reduction, increased indoor comfort and fuel poverty reduction are all aspects of building sector efficiency improvements (Ürge-Vorsatz et al. 2010).

Energy efficiency regimes, once established as a priority, can have various different nuances at the level of implementation. In the case of the building sector, four groups of policy measures should be considered: command and control mechanisms, budget mechanisms, market-based mechanisms and information-promotion mechanisms. As is demonstrated below, budget mechanisms integrate energy efficiency policy into general economic policy. Market mechanisms represent instruments which involve private commercial agents, such as industries, in energy efficiency promotion. Unlike budget mechanisms they do expose energy efficiency promotion to market risks. Command and control, as well as information promoting mechanisms, can be assessed at the level of general institutional effectiveness. In other words, those mechanisms that have the most thorough impact, specifically in the case of well-developed institutional design, are the ones that can promote and support implementation mechanisms.

As is demonstrated hereafter, Germany integrated a concept of market transformation into its implementation policy. The UK prioritised energy efficiency in buildings only indirectly without any strong budgetary involvement. As a result, Germany experienced one of the best development rates of new technologies, for example coated glazing, a special window surface which absorbs more sunlight and hence saves heat. The UK appears to be much less advanced in the area of new technologies (IEA 2008). And Russia does not seem to be ready for the implementation of energy-efficient, demand-side management policies. The afore-mentioned policy priorities, as well as different political and institutional structures, drive these differences, which will be observed at the implementation level that follows.

3.1 Command-and-control mechanisms

Command-and-control mechanisms stem from the direct regulation by a state to stimulate a market transformation. The mechanism requires strong action by a state in terms of establishing labelling and standards of end-use industrial products. For example, command and control mechanisms reduce mainly non-market barriers by regulating for the trading of energy-efficient products only within the domestic market, thereby also excluding inefficient, and usually cheaper, products from the market and increasing the competitiveness of efficient ones.

The residential building sector represents one of the areas, where command-and-control mechanisms have been largely applied. Command-and-control mechanisms are translated into concrete heating and cooling standards as well as building codes. They can be applied independently to different parts of buildings (e.g. envelope, cooling and heating systems, etc.), technologies (e.g. boilers, pumps, etc.) and appliances or to an entire building as a system. In the former case, it is usually referred to as a component-based approach and in the latter one as a performance-based approach (IEA 2008). Component- or technology-based standards prescribe the means of reducing energy consumption, while performance standards set the requirements of energy consumption for the whole building (Metz 2009).

Command-and-control mechanisms have been developed in all three countries analysed here. In the case of Germany's command-and-control measures in the building sector, they are mostly presented in the Energy Savings Ordinance (hereinafter, EnEV) adopted in 2002. EnEV is based on an integrated primary energy approach, which covers heating energy supply and demand in buildings. Germany's main concern is related to enhancing fuel efficiency in general and also in buildings (Jochem and Gruber 2007: 812). In this context, the trend in the development of building codes has been to make them more stringent, either through amendments to existing regulations or through the adoption of new ones (IEA 2008).

Quite a similar trend can be observed in the development of command-and-control mechanisms in building regulations in the UK. Building regulations were introduced in 1984 in England and Wales, setting standards for both the design and construction of buildings. This regulation combined both component- and performance-based approaches including setting minimal standards for the energy performance of a building together with individual aspects of buildings: the design and construction, insulation, fire safety, access to and use of the building and so on.

Russian Building Codes also combine performance-based and component-based approaches. Until quite recently, construction regulations in Russia had paid very little attention to energy efficiency issues in line with observations made above about an overall lack of priority given to energy efficiency. However, more recently the process of strengthening building codes' requirements has started in Russia as part of the implementation of the energy efficiency legislation. According to the Decree No.262 of the Ministry on Regional Development of 28 May 2010, Russian building codes are going to be

strengthened in 2011, 2016 and 2020. Each improvement presumes the construction of buildings with higher energy performance in comparison with current requirements, that is improvement will be performance based.

The analysis of Russian command-and-control mechanisms demonstrates the tendency to follow a developmental path with the trends similar to those in the regulations of Germany and the UK: towards more stringent energy efficiency requirements and from a technology-based to a performance-based approach in building codes. However, as has been suggested above, Russia has only recently started the development of its command-and-control mechanisms in respect of energy efficiency. Up to now, economic agents have been disinclined to implement any strict energy efficiency strategy. Therefore, regional and local authorities are not keen to implement the new standards due to the short-term costs in investments and the potential impact on prices.

3.2 Budgetary mechanisms

Budgetary mechanisms can include both tax and subsidy programmes. For example, the taxation of fossil fuels and the subsidisation of cleaner sources of energy may already stimulate a cleaner energy mix. Moreover, increased tax returns from conventional fuels can increase budget capabilities, which can in turn be transferred into subsidies for new clean technologies. Budget mechanisms represent a more indirect way of stimulating market transformation than direct command and control mechanisms. However, it can be argued that there is a need for long-term support mechanisms in order to create a balance in cost-competitiveness between old and new technologies.

Positive trends in developing budgetary instruments are evidenced in their broadening scope, including a wider range of energy efficiency measures and the creation of additional financial incentives. Nevertheless, European countries differ at the level of integrating energy efficiency into budgetary schemes.

In Germany, the principle budget mechanisms are shaped by the Ecological Tax Reform, which was created with an explicit objective of encouraging energy conservation, promoting renewable energy sources and creating jobs. The main concept behind the reform consists in encouraging energy market transformation at the consumption, or demand-side, level. The Ecological Tax Reform of December 1999 provided for a four-step increase in taxation from 2000 to 2003.

Ecological Tax Reform aims at increasing the price of traditional energy sources in buildings, making energy efficiency improvements more cost-effective, even for low-income households. Germany's policy emphasis on fuel diversification and ecological dimensions reflects the consistent influence of ecological NGOs and 'green' political parties.

The level of implementation is clearly different in the UK, where active achievement of energy efficiency has been traditionally attributed to the markets. In the UK, subsidy programmes mostly aim at reducing energy poverty (IEA 2008), which is only indirectly related to energy efficiency. Hence, energy efficiency implementation is only a secondary objective of the implementation mechanism.

In this respect, Russia represents an even more extreme example, where budgetary mechanisms for energy efficiency in the residential sector are still absent. Consumers cannot meter, reduce or refuse heat consumption and, as a result, many households refuse to pay for heat supplies that they claim they did not request. Non-payment problems stem from the Soviet understanding of the 'right of energy supply', which used to be at the core of the command economy. Cross-subsidies of water, heat and gas supply rather discourage any move towards budgetary mechanisms at the demand-side level. The ongoing under-pricing of non-renewable energy also undermines the ability of local distribution companies to invest in energy loss reduction (Moltke et al. 2004). At the same time, utility price growth in Russia did not lead to higher investment levels in energy loss reduction. This situation illustrates that energy efficiency is not yet considered as a powerful tool for tackling the long-term sustainability of energy, by either the State or industry.

3.3 Market-based mechanisms

Similar to budget mechanisms, market mechanisms aim at stimulating investments into cleaner energy, but they do so via business-oriented mechanisms and do not involve the state budget. This means that the state can leave all the investments to the private sector once incentive structures have been designed. Market-based mechanisms utilise market forces to alter institutional and individual incentives towards energy efficiency improvement (Karp and Gaulding 1995: 439–65). These incentives are aimed at increasing profits and reducing costs due to energy efficient actions, which make them interesting for large- and medium-sized companies. Market-based mechanisms can help to reduce behavioural barriers, as well as financial ones, by using 'soft' methods, or incentives, rather than forcing change as in the case

of command-and-control mechanisms. Market-based instruments also reduce technological barriers to energy efficiency, as they encourage companies to implement new technological decisions and invest in research and development. Nevertheless, market mechanisms require actions by private agents, whose behaviour is business-oriented rather than policy- or environment-oriented.

Quite an innovative market mechanism for energy efficiency are the White Certificates (hereinafter, WhC). The basic idea of WhCs is to allow trade between one agent, who has achieved an energy efficiency target, and who therefore has a WhC, and another, who did not and therefore needs to buy the WhC (Mundaca and Neij 2009: 4557–58]. The UK has been among the few European countries to have adopted the scheme (Bertoldi et al. 2010: 1457). One of UK's target sectors is residential households, with a separate energy savings goal to be achieved by implementing energy efficiency projects in the priority fuel-poor group (ECS 2010).

Unlike the UK, Germany did not implement the WhC scheme. This can partly be explained by Germany's political structures and support groups and associated preference for demand-side transformation, in that transformation should not be left solely to the markets. It could also be argued that German industry promotes the higher energy efficiency standard in order to provide long-term sustainability in the context of higher energy dependency. UK's use of the WhC scheme demonstrates their prioritising of market-based demand-side transformation.

As for Russia, market mechanisms are being set within the wholesale electricity market (Belyi et al. 2011). Indeed, certificate trading is now being introduced between large energy generators and large consumers on the basis of the European experience (Boute 2011). However, market participants are not keen to develop a regulatory framework for trading. Moreover, energy efficiency is becoming a priority in the wholesale electricity market only because losses in load constitute losses of value. However, an impact on the residential sector remains rather limited.

3.4 Information-promotion mechanisms

The main aim of information instruments is to reduce knowledge barriers to energy efficiency improvement. Information programmes are considered to be essential in supporting other policy measures. They can make them clearer to relevant agents, that is businesses and

consumers and therefore increase the effectiveness of implementation of energy efficiency strategy (Devine-Wright 2008: 443–61; Ürge-Vorsatz and Koeppel 2007). For example, a number of studies on hidden benefits demonstrated that energy-efficient buildings may lead to an increase in labour productivity by 10–16 per cent because of better acoustic and visual conditions (Grubb and Wilde, 2008: 236). Nevertheless, information on some of the benefits of information promotion mechanisms in boosting energy efficiency is less tangible, and so clear policy support is required.

Generally, information instruments raise public awareness on positive aspects of energy efficiency, which, consequently, creates the demand for energy efficiency products and technologies and, therefore, produces energy savings. In Germany, the key informative role is played by public awareness programmes which offer advice on energy conservation in residential buildings. This service covers building insulation, heating installations and renewable energy use in buildings. Under this programme, dwelling owners can receive a grant if they follow on-site expert advice on possible energy conservation measures (Kleeman and Hansen 2005). Thus, this information programme is also linked to the production of economic incentives in terms of increasing demand for energy efficiency technologies.

A similar approach is used in the UK under the 'Low Carbon Building Programme' (Lowe and Oreszyn 2008: 4477). The programme combines information and capacity-building measures with financial incentives. Householders can apply for grants through the programme to purchase and install micro-generation technologies. Nevertheless, some analysts argue that UK administrations lack relevant empirical information on the energy performance of new and existing buildings against which to measure improvements.

In Russia, information mechanisms started to be implemented, since 2009, alongside energy efficiency labelling. Its aim is to help the market recognise energy efficiency products, provide customers with information about them, including real costs and potential energy savings, and, consequently, stimulate demand for them (ECS 2009). This scheme covers products which can improve energy efficiency in existing residential buildings, such as energy-efficient refrigerators and freezers, low-emission oil-atomising burners and solar-powered products. The programme sets out a clear procedure which regulates the environmental criteria which have to be fulfilled before a label can be issued by product manufacturers.

Russia is also going to introduce a labelling system for buildings with the implementation of the energy efficiency legislation. If consumers

are made aware of proposed benefits of energy-efficient buildings, such as reduced energy bills, decreased use of energy resources, lower level of greenhouse gas emissions and, as a result, reduced negative impacts on the environment and health, then some might choose to purchase more energy-efficient apartments and equipment. Naturally, for others reduced energy costs alone would be the main incentive. Nevertheless, short-term economic priorities, such as access to affordable energy, continues to dominate general priorities. As a result, a lack of information-promoting mechanisms lowers efficiencies in implementing existing framework legislation.

4. Conclusion

In conclusion, this comparative analysis demonstrates that political and economic factors are closely interlinked in the subject of energy efficiency. Albeit many countries have stated energy efficiency targets, general policy priorities and instruments do not always match. For instance, differences between German and UK energy policy priorities and energy efficiency mechanisms might be ascribed to the different historical energy dependency structures of the countries as well as their energy efficiency regime formation. Germany has been a more energy hungry state, and hence it has been developing energy efficiency strategies since the 1970s. In addition, the political landscape in Germany differs from that of the UK in that it has had a well-established and relatively popular Green Party which has been able to influence the ecological side of Germany's energy policy. As such, the German legislative framework for energy efficiency has been more developed and more detailed than the UK one. UK energy priorities have, since the early 1980s, been focused on implementing market privatisation and liberalisation, which has arguably limited possibilities for the development of budget mechanisms.

Russia's abundance of fossil fuels has led to a lack of energy efficiency prioritisation, which is further reflected in tariff and investment structures. The country's energy priorities only insignificantly include energy efficiency. Although Russia has recently started to prioritise energy efficiency, we already observe a clear clash of values between European and Russian conceptions. The European Union, and many of its members, steadily attempt to move towards a non-hydrocarbon economy, whereas Russia needs to keep increasing fossil fuel exports and maintaining access to affordable energy for households.

Still, a lot of actions could be taken in Russia to overcome the lock-in effect caused by path-dependency on inefficient technologies. In this

context, a hypothetical best-practice transfer might further improve the general cooperative framework of relations between Russia and Europe. Nevertheless, a lot depends on the effectiveness of implementation mechanisms and their design, which is not always linearly linked to the legislative framework. Russia's energy regime has been failing to create appropriate implementation mechanisms, which makes any best-practice transfer harder.

At the same time, factors related to regime development need to be outlined in order to understand the level of policy implementation. Discrepancies in the effectiveness of the implementation of energy efficiency mechanisms can mainly be explained by national resource regimes. Therefore, energy efficiency priorities as well as the implementation of targets remain nation-specific. The conclusion clearly breaks with any technological determinism in that institutional and policy dynamics remain key factors in setting the structure of an innovative economy. In practice, it would actually mean that any best-practice transfer of command-and-control, budgetary and market mechanisms can be limited because of the lack of generalisable conditions for effective implementation. Moreover, the success of information-promoting mechanisms may be clearly dependant upon the political and cultural context of each country.

There is a clear trend towards a variety of implementation mechanisms supporting innovative technologies. The development of energy saving in the building sector clearly demonstrates the important institutional factor that is the multi-faceted nature of energy policy. Markets alone do not appear to incentivise long-term beneficial investments and the 'cost-effective', profit-maximising approach of economic agents means that they do not always consider the more intangible benefits of energy efficiency. Nevertheless, one cannot ignore discrepancies at the level of implementation, which remain dependant on each national regime approach. Consequently, national specificities persist despite the fact that the trend of setting energy efficiency standards is becoming more globalised.

Bibliography

Articles, books and reports

Belyi, A., Overland, I., and Vishnyakova, A. (2011), 'Challenges to Russias Post-Rao UES Energy Paradigm: A Window of Opportunity for Sustainable Market Development and Renewable Energy Promotion', *Journal for World Energy Law and Business*, 4(2), pp. 181–92.

Belyi, A. and Petrichenko, K. (2011), 'Energy Efficiency Policies of Russia', *Oil, Gas, Energy Law Intelligence*, URL: www.ogel.org, accessed on November 2011.

Bertoldi, P., Rezessy, S., Lees, E., Baudry, P., Jeandel, A., and Labanca, N. (2010), 'Energy Supplier Obligations and White Certificate Schemes: Comparative Analysis of Experiences in the European Union', *Energy Policy*, 38, pp. 1455–69.

Boute, A. (2011), 'A Comparative Analysis of the European and Russian Support Schemes for Renewable Energy: Return on European Experience for Russia', *Journal for World Energy Law and Business*, 4(2), pp. 157–80.

Bushuev, V. and Troitsky, A. (2004), 'Energoeffektivnost i ekonomika Rossii', *Vesti v elektroenergetike*, 1, pp. 6–11.

Criqui, P., Martin, J-P., Schrattenholzer, L., Kram, T., Soete, L., and Van Zon, A. (2000), 'Energy Technology Dynamics', *Global Energy Issues*, 14(1–4), pp. 65–104.

Daw, S. (2007), 'Energy Law in the United Kingdom', in Roggenkamp, M. et al. (eds.), *Energy Law in Europe*, Oxford: Oxford University Press, pp. 1169–261.

Department for Environment, Food and Rural Affairs (DEFRA) (2005), Fuel Poverty Monitoring: Energy Company Schemes 2003. Annex to UK fuel Poverty Strategy, 3rd Annual Progress Report 2005.

Devine-Wright, P. (2008), 'Reconsidering Public Acceptance of Renewable Energy Technologies: A Critical Review', in Grubb, M. et al. (eds.), *Delivering a Law Carbon Electricity System*, Cambridge: Cambridge University Press, pp. 443–61.

Douma, W. (2007), 'The European Union, Russia and the Kyoto Protocol', in Peeters, M. and Deketelaere, K. (eds.), *EU Climate Change Policy*, Cheltenham, Edward Elgar, pp. 51–93.

Energy Charter Secretariat (2009), *Energy Efficiency Policies*, Brussels, URL: www.encharter.org, accessed on November 2011.

Energy Charter Secretariat (2010), *White Certificates*, Brussels, URL: www.encharter.org, accessed on November 2011.

Ehlers, E. (2010), *Electricity and Gas Supply Network Unbundling in Germany, Great Britain and the Netherlands and the Law of the European Union: A Comparison*, Cambridge, Intersentia.

Geller, H., Harrington, P., Rosenfeld, A., Tanishimba, S., and Unander, F. (2006), 'Policies for Increasing Energy Efficiency: Thirty Years of Experience in the OECD countries', *Energy Policy*, 34, pp. 556–73.

Grubb, M. and Wilde, J. (2008) 'Enhancing the Efficient Use of Electricity in the Business and Public Sectors', in Grubb, M. et al. (eds.), *Delivering a Law Carbon Electricity System*, Cambridge: Cambridge University Press, pp. 229–57.

Helm, D. (2004), *Energy, the State and the Market*, Oxford: Oxford University Press.

International Energy Agency (1995), Energy Policies of the Russian Federation: Survey, OECD, Paris.

International Energy Agency (2002), Russia Energy Survey, OECD, Paris.

International Energy Agency (2008), *Energy Efficiency Requirements in Building Codes, Energy Efficiency Policies for New Buildings*, Information paper, In support of the G8 Plan of Action, OECD, Paris.

International Panel for Climate Change (2007), *Residential and Commercial Buildings. Climate Change 2007: Mitigation*. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, Cambridge University Press.

Jakob, M. (2006), 'Marginal Costs and Co-benefits of Energy Efficiency Investments – The Case of the Swiss Residential Sector', *Energy Policy*, 34, pp. 172–87.

Jochem, E. and Gruber, E. (2007), 'Local Learning Networks on Energy Efficiency in Industry – Successful Initiative in Germany', *Applied Energy*, 84(7–8), pp. 806–16.
Karp, D.R. and Gaulding, C.L. (1995), 'Motivational Underpinnings of Command-and-control, Market-based and Voluntarist Environmental Policies', *Human Relations*, 48(5), pp. 439–65.
Kleemann, M. and Hansen, P. (2005), *Evaluation of CO2 Reduction Measures in the Built Environment*, Federal Office for Building and Regional Planning, Bonn.
Lowe, R. and Oreszyn, T. (2008), 'Regulatory Standards and Barriers to Improved Performance for Housing', *Energy Policy*, 36, pp. 4475–81.
Metz, B. (2009), *Controlling Climate Change: European Climate Foundation*. Cambridge: Cambridge University Press.
Mitchell, C. (2008), *The Political Economy of Sustainable Energy*, London Palgrave Macmillan.
Moltke, A., McKee, C., and Morgan, T. (2004), *Energy Subsidies: Lessons Learned in Assessing their Impact and Designing Policy Reforms*, United Nations Environmental Program and Greenleaf Publishing, Sheffield, UK.
Mundaca, L. and Neij, L. (2009), 'A Multi-criteria Evaluation Framework for Tradable White Certificate Schemes', *Energy Policy*, 37, pp. 4557–73.
Pielow, J-C., Koopman, H.M. and Ehlers, E. (2007), 'Energy Law in Germany', in Roggenkamp, M. et al. (eds.), *Energy Law in Europe*, Oxford: Oxford University Press, pp. 623–715.
Roggenkamp, M., Redgwell, C., Del Guayo, I., Ronne, A. (2007) "Energy Law in Europe: comparisons and conclusions" in Roggenkamp, M. et al. (eds.), *Energy Law in Europe*, Oxford University Press, pp. 1265–1358
Stevens, P. (2000), The *Economics of Energy*, Volume II, Cheltenham, Edward Elgar.
Ürge-Vorsatz, D. and Koeppel, S. (2007), An Assessment of Policy Instruments for Reducing GHG Emissions from Buildings. Report for the UNEP Sustainable Buildings and Construction Initiative.
Ürge-Vorsatz, D. and Novikova, A. (2008), 'Potentials and Costs of CO2 Mitigation in the World's Buildings', *Energy Policy*, 36(2), pp. 642–61.
Ürge-Vorsatz, D., Telegdy, A., Fegyverneki, S., Arena, D., Tirado-Herrero, S., and Butcher, A.C. (2010), 'Employment Impacts of a Large-Scale Deep Building Energy Retrofit Programme in Hungary', *Center for Climate Change and Sustainable Energy Policy Report* (3CSEP) of Central European University, Budapest, on behalf of the European Climate Foundation.
Werring, L. (2006), *EU Environmental Law*, Leuven: Claeys & Casteels, pp. 149–73.
Yergin, D. (2008), '$100 Oil: Moving Deeper Into Uncharted Territory', *Cambridge Energy Research Associates, Inc. (CERA) report*.
Young, O. (1982), *Resource Regimes and Social Institutions*, Los Angeles, University of California Press.

Legislative and policy documents

Germany

Energy Industry Act of Germany (7 July 2005) BGBI. I, p. 1970.
Gesetz zur Förderung Erneuerbarer Energien im Wärmebereich (Erneuerbare-Energien-Wärmegesetz – EEWärmeG), URL: http://www.bmu.de/files/pdfs/allgemein/application/pdf/ee_waermeg.pdf, last accessed July 2011.

Nationaler Energieeffizienzplan Strategie des Bundesumweltministeriums (2008), URL: http://www.bmu.de/files/pdfs/allgemein/application/pdf/energieeffizienzplan.pdf, last accessed on July 2011.

European Union

Directive 92/75/EU of 22 September 1992 on the indication by labelling and standard product information of the consumption of energy and other resources by household appliances, OJ L 297.
Directive 2009/28/EC of 23 April 2009 on the promotion of the use of energy from renewable sources, OJ L 140.
Directive 2010/31/EU of 19 May 2010 on the energy performance of buildings, OJ L153.

Russia

Ministry of Energy, *Russia's Energy Strategy Till 2030*, Moscow, 2009.
Russian Federal Law on energy efficiency, 261/ 2009; Governmental Resolution 1715-p of 13 November 2009.

UK

DTI, *Our Energy Future – Creating a Low Carbon Economy*, 2003.
DTI, *The Energy Challenge*, Energy Review Report 2006.
DTI, *Meeting the Energy Challenge*, a White Paper on Energy, 2007.
Sustainable Energy Act, 2003.

6

Security and the Economics of Energy in North East Europe

Slawomir Raszewski

1. Introduction

This chapter examines the intersection between security and the economics of energy by looking at how the political factor, as in increasing attempts at securitising energy, may influence economic structures. To this end, the paper examines the cases of two energy vulnerable European Union (EU) member states – Lithuania and Poland – in both of which securitising moves have taken place.

Drawing on the Copenhagen School of Security Studies, politicisation is understood here as an act of politicians or politicising actors which makes an alleged security issue public and 'political' within a community. The act of politicisation allows for the issue to be acted upon 'beyond the normal bound[s] of political procedure' (Wæver 1996: 104). Politicisation may constitute an interim stage in a process of securitising an issue which results in the eventual de-politicisation of the issue and its withdrawal from the public and democratic process. In such a case secrecy measures may come about as a result of the type of politicisation associated with matters of, in particular, national security ending with the full securitisation of an issue.

Securitisation can be defined as the end state of the securitising process based on the premise of attributing something as a 'successful speech act'. Such an act is 'constructed within a political community' with an aim of sanctioning something as 'an existential threat' to an object which represents value to the community. This means that exceptional and urgent measures are called for in order to 'deal with the threat' (Buzan and Wæver 2003: 491). Securitisation is only achieved when it has ultimately led to the de-politicisation of the issue through the withdrawal of the subject from the public and democratic

process by successful speech acts. The resulting de-politicisation and the withdrawal of the subject from everyday discourse, in turn, opens the way to politics behind closed doors.

Instances of unsuccessful securitisation, on the other hand, constitute a 'securitising move'. Securitising moves, in turn, refer to unsuccessful securitising speech acts which have not turned into the end state of securitisation. Securitisation may have an immediate effect on economic structures through the 'valuing' of an issue, such as the energy supply, as a security issue. Labelling something a 'security' issue allows the political process to be taken 'beyond the established rules of the game' while disengaging market actors. Thus securitisation can be viewed as 'a more extreme version of politicisation' (Buzan et al. 1998: 23) residing on the other end of the spectrum *vis-à-vis* politicisation.

Based on the theoretical underpinning of securitisation theory, in the case of Lithuania and Poland, Russia has been sanctioned as a 'threat' to the two countries' valued object, which has clearly been their energy supply. The way in which energy and the threat from Russia have been acted upon in the two countries has involved more 'speaking about security' – or securitising moves – than secrecy as such, meaning that the issue cannot yet be defined as being 'successfully' securitised.

In the realm of economics, securitising can be understood as a process which has been interposed between political and economic structures. The perception that energy supply is insecure to the same extent that Russia is involved leads to political actions which, in turn, lead to decisions being made which might otherwise be avoided given the lack of economic justification. Equally, perceptions, based on the historical experience of Russia's presence in Lithuania and Poland, have significant influence on the securitising moves involving the reading of the energy sector as a security issue.

The acceleration of EU internal energy market liberalisation has internalised energy security policy and has hindered energy interdependence between the EU and Russia. By the same token, this has informed and reinforced the energy security conceptions of the actors who define their energy security as being vulnerable (Barysch 2011a: 3). This is due to the way that the 'Unbundling Principle'[1] has been addressed by actors who have been both historically and culturally exposed to Russia.

2. Historical perspective

Historical developments play an important role in understanding the consecutive processes of the sanctioning of Russia as a threat to

Lithuania's energy. From the beginning of its incorporation into a common Soviet social sphere, its energy sector has been oriented from the periphery to old Soviet centre producing patterns of reliance and dependence.

The direct link between the energy sectors of the Soviet Union (USSR) and Lithuania meant that the integration of the complex had stretched beyond plain energy logic across the economic and security sectors. Lithuania's peripheral location informed Soviet energy policies by confining Lithuania to an energy outlet for hydrocarbons produced further afield in the USSR. Reliance on Soviet nuclear power technology served to further strengthen the patterns producing ever stronger links between energy, the economy and security. Following the USSR's collapse, however, new economic and security alignments through the EU and NATO were established, the implications of these alignments soon started to emerge. Being torn between two systems with the economic and energy realities pulling the country back, the country tried to march into the new future with the West. It tries to forget a past which does not allow itself to be as easily forgotten as everyone would so dearly wish.

Through integration with the Euro-Atlantic structures, former members of the Eastern Bloc and the post-Soviet Baltic republics 'definitely decoupled from Russia' while retaining the 'negative experiences of Russia', which coloured their input into EU-Russia policy (Oldberg 2005: 37). Membership of Western structures sanctioned this 'anti-Russian flavour' which may be best attributed to some kind of 'revenge syndrome' of the Ex-Warsaw Pact states (Terterov 2011: 9). Importantly, it also brought inherited economic vulnerabilities to the core, certainly as far as energy is concerned. Indeed, Janeliūnas observes that Lithuania's 'energy security has been one of the most sensitive issues of the economic and political survival of the state' since its independence proclamation of 1991 (Janeliūnas 2009: 190).

As the link between Poland and the USSR's energy sector was of a different nature to that of Lithuania, Poland has experienced different energy dependence trajectories following the collapse of the Council for Mutual Economic Assistance (Comecon) and the Soviet system. Following the breakup, links were established with, first and foremost, crude oil and later on natural gas. Warsaw's dependence on these, however, was balanced by access to cheap and abundant coal resources available domestically in Poland's Silesia region.

As opposed to Lithuania, Poland's unique geographical location between Western Europe and the Russian Federation (Russia) allowed the country to play a key role as a transit state for Soviet crude oil. It was

only in the 1990s with the construction of the Yamal natural gas transportation corridor that Poland emerged as a transit balancer for gas en route via the Ukraine to Europe.

Following the euphoria of sovereign independence, the policy trend comprising the diversification of energy and the integration of both countries' respective markets with those of the EU trade block was initiated. It was only once their EU memberships were secured that realpolitik re-emerged as a major factor driving energy policy in the post-Soviet 'near abroad'.

2.1 Acceleration of securitising in the 2000s

Energy politicisation and the securitising of energy have accelerated since the early 2000s becoming a distinct hallmark of both Community-level and member states' relations with Russia. The acceleration is attributed to changes in the security arrangements in the two systems. In this vein, the geopolitical fallout of the 2004 EU enlargement into Central and Eastern Europe (CEE) has had profound implications for relations between the EU and Russia. Perceptions of insecurity between these two regions have come into direct contact as the buffer zone of CEE disappeared, at least politically. The shrinking distance between the two allowed not only for the unfolding of more energy interdependence, it also enabled perceptions of insecurity to travel faster (Belyi 2003). CEE's north-eastern periphery has, ever since this time, occupied the fault line between the former and emerging systems.

Owing to the Soviet legacy, the energy infrastructure of Lithuania, as well as that of Latvia and Estonia, has facilitated energy trade with one, sole natural gas supplier – Gazprom. As a result Lithuania's natural gas sector is a monopolistic structure with the company Lietuvos Dujos (LD) being responsible for the gas market.[2] As such, Lithuania possesses very little market power with one local energy supplier receiving gas from one, much larger, energy distributor. For this reason, Lithuania's energy sector, similar to those of its two other Baltic neighbours, has been referred to as a 'gas island' within the EU (Ramboll 2009: 8).

In addition to the Russian gas trade relations, 'green' EU energy policy affected coal-based power generation favouring 'cleaner' energy such as natural gas. With its huge reserves and reliance on coal, Poland has had one of the lowest consumption levels of natural gas per capita in the EU (Szymańska 2010: 2–3). However, owing to EU carbon dioxide emissions reduction policies – the third pillar of energy security[3] – and the political emphasis on low carbon technologies, there has been a renewal

of nuclear energy aspirations in Warsaw. Constrained by pan-European policy, Poland's energy strategy addresses the importance of nuclear energy in future power generation in Poland as a convenient source in meeting both the needs of a low carbon economy and the need to reduce CO_2 emissions, whilst also ensuring 'energy security'. As such, for coal-rich Poland, it means a gradual switch from coal to gas in its electricity production. For its neighbour Lithuania it means even greater energy dependence on Russian gas, which is already perceived as being far too great.

As Lithuania converges with the energy policies and associated priorities of the EU, the experience of profound challenges with Russian energy players and perceptions of insecurity naturally ends up making the headlines. The historical relations and dependencies drive the country towards the EU trade block while unlocking looming threat perceptions from Russia. Indeed, Lithuania's concession to close down the Ignalina Nuclear Power Plant by the end of 2009 as agreed in its EU accession treaty sheds some interesting light on the current difficulties in the country's power generation capacity which has had to be ameliorated by the consumption of more natural gas imported from the Russian Federation.

The discontinuation of Ignalina's operations in order to mitigate any potential risks associated with its Soviet-era nuclear technology has further strained energy relations between Lithuania and Russia and has sparked uncertainty over the country's electricity sector (*The Economist* 2011). Attempts to attract strategic investors from South Korea have been made but, as some argue, they were pre-empted by Russian Prime Minister Vladimir Putin's visit to Korea which allegedly derailed the investment plan (Rydström 2011). The looming electricity generation capacity gap may be supplemented with additional volumes of natural gas but this remains a sensitive issue owing to the monopolistic nature of the country's natural gas sector.

In addition to the Ignalina Plant and electricity production issues, the cornerstone of Lithuania's energy output for the transport sector, the Mažeikiai Nafta oil refinery, presents further problems (Janeliūnas 2009: 190). Without any significant indigenous crude oil sources Lithuania is entirely dependent on imported energy for transport while nominally retaining refining capacity. However, substantial problems at the Mažeikiai refinery, which also involve Poland's energy sector, have added to perceptions of energy insecurity. Oil deliveries from Russia, through the Druzhba crude pipeline, remain discontinued, seemingly

as a direct result of the refinery's acquisition by the Polish company, PKN Orlen, in 2006. The acquisition of stakes from the Lithuanian Treasury and the Russian company, Yukos with the European Commission's approval, made PKN Orlen's subsidiary – Orlen Lietuva – a major stake holder in Mažeikiai Nafta.

At the same time, as the deal was completed, immediate supply problems occurred as flows of Russian crude were halted. While the Russian side presented the problem as a technical one, in Warsaw and Vilnius, it was perceived that Moscow was attempting to gain control over the refining business regionally. PKN Orlen's endeavours to get out of the apparent investment cul-de-sac have dominated Polish-Lithuanian energy relations bringing new uncertainties to the relationship between the two countries.

Since accession in 2004, energy market liberalisation has become a focus for the two states in their pursuit of EU level institutionalised energy security. Despite the odds, the two countries embarked on the road to diversification and increased interconnection of their respective energy sectors to meet the EU's criteria.

Both Poland and Lithuania have supported the EU directive on Ownership Unbundling – the Third Energy Legislature dubbed the 'Gazprom clause'. This decision was made in spite of Poland being largely dependent on its coal and increasingly on natural gas as a 'cleaner' hydrocarbon substitute for electricity generation. Despite its total dependence on Russia in terms of energy, Lithuania has made the decision to fully unbundle Gazprom's networks while promoting policies of energy independence.

Clearly, there is a negative interaction between the national and the EU level as far as pursuit of energy independence of the former and attempts to interconnect energy of the latter are concerned. At the same time, the pursuit clashes with the EU directives on increasing interconnectedness and diversity as disengaging competition mechanisms needed to successfully implement the Unbundling Principle in electricity and gas markets. From a wider perspective, it hinders energy governance in general and energy interdependence in particular, making it harder for the interests of energy consumers to meet with that of the producers. What is more, securitising moves and full securitisation as a way of pursuing an energy policy may have a negative effect on both the public and the market players, as it hinders the principle of market players' involvement disabling the energy policies and directives.

2.2 Russo-sceptics in the North-East

Poland and Lithuania have been identified within the 'New Cold Warriors' category in what Leonard and Popescu (2007) refer to as the five different approaches to Russia among EU member states.[4] According to this category, the New Cold Warriors are defined as being overtly hostile towards Moscow and willing to veto negotiations between the EU and Russia (Leonard and Popescu 2007: 2). A number of reasons have been attributed to this categorisation with energy relations being at the core.

The two countries' energy priorities are reflected in their respective National Energy Strategies (NESs). Poland's NES, adopted by the Council of Ministers on 10 November 2009, is positioned within the context of the EU's three-pillar energy policy. However, it also emphasises the role of indigenous coal in ensuring energy independence from externally supplied energy sources in the electricity generation and municipal heating sectors (Ministry of Economy of Poland 2009: 15).

Lithuania's National Energy (Energy Independence) Strategy (NEEIS)[5] emphasises its main problem as energy dependence on one sole energy supplier – Russia in gas, electricity and uranium. In its short-term perspective, by 2020 the goal of the NEEIS is to make the country energy independent (Republic of Lithuania 2010: 10). The strategy's energy independence goal is at odds with the country's embryonic market structure. The structure is facing the challenges of a lack of energy diversification, of supply security, of isolation and of a shortage of competitive power generation capacity.

Owing to Lithuania's scarce energy resource base and its historic track record of power generation, it wants to pursue a new era of nuclear power generation replacing and decommissioning the Ignalina power plant with the planned Visaginas Nuclear facility (Republic of Lithuania 2010: 17). In addition to being a very expensive option, the planned nuclear facility may also have further effects on the country's energy security perceptions. Since nuclear fuel can potentially be imported from multiple countries, the option is praised for its diversification; however, at the same time it fails to acknowledge that uranium needed for operationalising the plant would largely need to come from Russia (Republic of Lithuania 2010: 17).

The Baltic States, in particular, remain linked infrastructurally to the Soviet era networks (Aalto 2007: 10). This shift, from one organisational structure to another over a short period of time, has demanded the readjustment to new priorities for their economies. This is in addition to the challenges of privatisation and market liberalisation, as well as

the arrival of non-traditional climate and energy efficiency priorities. Together with security of supply considerations, the task of this shift became more complex in the 2000s owing to the changing macroeconomics of the global energy trade. The rise of China and India, fuelling soaring energy demand, made it very difficult for the North-Eastern region to keep pace with rising energy prices as well as compliance with strict EU priorities.

2.3 Perceptions of energy and security

History, and perceptions of both older and more recent events interrelate with narratives built around the energy sector as a security issue by the political community. The way Lithuania's Parliament – the Seimas – has been 'increasingly beleaguered' and unable to respond to 'the frustration felt by Lithuanian citizens against purported external enemies'. In particular, the inherited vulnerability of its energy complex and energy security has become a hotly debated matter in the country. There appears to be an entrenched consensus amongst citizens that external forces, and Russia above all, are to be blamed for Lithuania's deplorable status as an alleged energy island (Rydström 2011). Indeed, this perception impacts upon energy policy making in Lithuania, as the country's politicians attain to securitise the subject of energy, making it 'hyper' politicised along the way.

Similar developments have taken place in Poland. New infrastructure projects such as the Nord Stream Baltic seabed pipeline has, since its inception, been perceived as 'not just' an energy project. The Polish government had persistently ruled out the possibility of Polish companies' participation in projects linking Russia with Germany while circumventing Polish jurisdiction. In concert with its fellow 'Cold Warrior', Lithuania, and 'Friendly and Frosty Pragmatists', Finland and Sweden, Estonia, Latvia and Denmark, Poland had undertaken efforts to block or at least delay the project. Failure to stop it constitutes a failure of foreign policy. This is especially true for Poland, as the obstruction that the laying of the pipeline is expected to create will prevent large LNG vessels from docking at the planned LNG terminal in Świnoujście in the future (Watkins 2010), perhaps even making it an unviable project.

At its core, Poland's ability to purse a consistent energy policy is hampered by the structure of its policy-making process. The semi-presidential system, introduced in the early 1990s as a result of a power-sharing agreement between the so-called post-Communists and the opposition, makes it very hard for Polish decision makers to make

swift decisions due to the fact that destabilising scrutiny and obstruction of the process of decision making prevails (Przeworski 2009). Anchored between the strong models of France's Presidential and Germany's Chancellorial or Prime Ministerial models, energy security narratives, at best, end in a deadlock of endless discussions within its political community. At worst, the narratives encourage speaking about security and energy while driving political actions and decisions which may lack economic rationale.

3. Effects of securitising on the energy sectors of Lithuania and Poland

Unlike the Strategic Partners who are openly against EU level legislation on energy law which demands full unbundling (Taylor 2007), the New Cold Warriors have made their policies consistent with this legislation. Through unbundling, the New Cold Warriors seek to improve their energy security by closer inter-connectedness with the wider EU energy market. At the same time, the energy policies of the two countries seem to suggest otherwise, being explicit about the goal of becoming energy independent. This energy policy contradiction may be explained by reference to both the internal and external dynamics of gas markets in the region. Firstly, the possible reassurance stemming from anticipated unconventional gas prospects strengthens the backbone of the energy policies (Gazeta Prawna 2010). Secondly, transposition of the legal unbundling provisions upholds the Commission's energy policy and allows for the utilisation of the law as a bargaining tool over Russia as the dominant energy supplier (The Lithuania Tribune 2011a).

Energy dependence as far as natural gas is concerned is of immediate importance to Lithuania, while it is less urgent for Poland. Thus, the former's bid for energy independence from the single energy supplier has demanded the adoption of the LNG option. This option is of particular relevance for a country with access to a coastline and is critical to the country's energy sector. Access to LNG gas markets with the added advantage of their flexible spot prices, very low at present, would be a distinct advantage. It would also help Lithuania reduce 'pipeline politics' to a minimum. With the recently signed Memorandum of Understanding between Huston-based Cheniere and Klaipėdos Nafta, Lithuania seeks to secure future supply contracts at the capacity of 1.5–2.2 million tonnes per annum to facilitate the Klaipėda LNG terminal project (Cheniere Energy 2011). Nevertheless, the economic justification for the multi-million dollar LNG investment does not hold

with the current netback prices at the level of $1–$2 and uncertainty over prospects for American LNG exports in the absence of gas price increases on a long-term basis (Anonymous 2011). At the same time, the project may be economically difficult, in particular as sources of financing remain uncertain. The NEEIS of Lithuania envisages enormous spending on attaining its goal of energy independence with strategic initiatives aimed at achieving the goal at the level of 4.5–7 billion USD with an anticipated private investors' share of 7.4–9.8 billion USD (Republic of Lithuania 2010: 5). While, so far, it has been unclear how the funding for the government's share would be secured in order to attain this goal. This issue raises some very important questions. The energy insecurity perceptions that have informed the goal of energy independence seem to have resulted in planning for projects whose economic viability is far from clear. Energy policies which emerge as a result of securitising moves are not properly suited to alleviate the fears of the public. Instead, these policies further exacerbate tension between securitising a subject and delivering policy as an outcome.

There is also a Polish connection to the LNG game in the Baltic. As far as financing is concerned, the proposed LNG plant in Klaipėda on the Lithuanian Baltic Sea coast may be in conflict with the planned Świnoujście LNG terminal. Aimed chiefly at delivering on lower carbon emissions, the Świnoujście LNG terminal option is still only in the planning stage as the promise of extensive deposits of shale gas in Poland remains unproven. Owing to its low energy portfolio penetration, natural gas seems to be the fuel of choice. The Polish NES envisages that the use of indigenous coal will, over time, be replaced with 'transitory' natural gas. It is unclear whether the Świnoujście LNG terminal, which has been on the agenda for almost a decade, will be built, mainly because of doubts about its feasibility and the costs of implementing the project.

In the meantime, this strategic uncertainty has become a currency of politics with the energy sector's narratives playing an important part in the process of securitisation.

It seems increasingly that the nuclear aspirations of both Lithuania and Poland might now be temporarily curtailed, not just due to financing, but because of leading EU politicians' concerns following the Fukushima crisis in Japan (Raabe 2011). The ban on nuclear energy in Germany and the emergence of a strategic coal and gas partnership between German and Russian gas champions (Itar-Tass 2011) may not be without EU-wide implications. Owing to these developments, the nuclear approach, which is still under consideration in Lithuania, represents a potential source of rupture with the NEEIS simply because it may

be unfeasible politically, let alone economically, in the post Fukushima world.

3.1 Oil – the weakest point of reference of Poland's securitising moves

The economics of the Mažeikiai/Orlen Lietuva refinery have also been subject of feelings of insecurity and financial measures to ensure it is kept open. In 2009 PKN Orlen appointed the investment bank Nomura to consult on the ongoing management of the refinery, which fuelled further unconfirmed speculation about the possible sale of this entity, making it vulnerable to a possible Russian takeover. Energy diplomacy between Warsaw and Vilnius has witnessed instances of disengagement with bureaucratic rules in order to facilitate direct contact between the heads of the two states, adding extreme politicisation to the issue. Indeed, the issue reached all the way up to presidential level talks. Poland's President Komorowski confirmed that the rationale behind the consultant's appointment was not political but organisational, and this was in turn confirmed by Lithuania's President Grybauskaitė. Grybauskaitė dismissed speculation over the possible sale of the refinery suggesting that if decided upon it would incur 50 per cent loss as compared to the bid price paid by PKN Orlen. This is hardly surprising given Orlen Lietuva's losses amounted to 34 million US dollars in 2009 (The Lithuania Tribune 2010). While PKN Orlen's most expensive foreign venture is making the headlines, there is a lot of speculation surrounding the real or perceived role of the Russian energy sector's involvement in the process.

Nevertheless, it should be noted that in spite of high supply dependence on Russia, the level of securitising in the oil sector remains low in Poland. This may be explained by the fact that Poland enjoys the role of the major transit country for Russian crude oil en route to Western Europe. This, in addition to the diversification potential offered by global oil markets to which Poland has access through the Black Sea, mitigates the securitisation of oil relations with Russia.

3.2 The promise of unconventional gas

The so-called shale gas revolution in the US, where unconventional gas has been commercially exploited over the past 3 years or so, has sparked excitement for the possibility of energy independence pursuit in Poland. While the existence of unconventional gas reserves in that part of Europe has been known for years now, discussions about the

prospects of shale gas on the Old Continent have been initiated only recently. There are two main reasons for this. The first is the advent of shale gas production technology and access to it. Indeed, receipt of large quantities of US state investment in shale's research and development stages resulted in new technological break-throughs. The second stimulus has been a favourable gas market environment characterised by expected high, long-term prices for natural gas. Indeed, the psychological barrier was crossed by the US in 2010 when it overtook Russia as the world's biggest gas producer thanks to its shale gas production (Izvestia 2010). Shale gas technology has heralded a quiet energy revolution, whilst also informing the energy policies of those countries involved (BBC 2010), particularly Poland.

The most optimistic unconventional gas data forecasts for Poland come from the U.S. Department of Energy (EIA 2011) which estimates it at 5.3 trillion cubic meters of potentially recoverable shale gas, which would be enough to satisfy domestic demand for 300 years (WSJ 2011). This, coupled with American shale gas production technology has been widely discussed not just in Poland but also in neighbouring Lithuania.

Shale Gas speculation seems to have had a significant influence in informing Poland's energy policy, not least in terms of rediscovering the concept of energy independence. It also reassured the Lithuanians in their bid for energy independence. So far there has been a very positive reaction to the shale gas developments in both countries with 62 shale gas exploration companies registered as of 1 July 2010 (Forsal 2010). The promise of shale gas as a game changer seems to be on the top of policy makers' minds in Poland. It has received almost unanimous support from the political and ministerial community, energy experts, geologists and, not least, leaders of local communities (Shale Gas Conference 2011). This can be largely attributed to the historical perspective and is underpinned by the desire to become economically independent through strengthened energy security, while cementing a stronger position within Western political structures (Poland's Foreign Minister as quoted in Investors Hub 2011).

At the same time there are many uncertainties regarding the geological feasibility of shale gas extraction. This is coupled with the possibility of negative environmental impacts of shale gas production, in particular hydraulic fractioning in densely populated areas. In terms of the former, there are geological surveys currently underway; however, a fuller picture of the shale gas reserves, based on the surveys, may only be available within a 5-year timeframe (Barysch 2011b). The economic success of unconventional gas exploration in Poland has been called into question

owing to the expectation of considerable costs of the exploration process which may, in turn, have a big influence on the fuel's end price. Back in the US, recent media reports suggest that the industry's ability to extract gas from shale formations easily and cheaply might have been overstated (*New York Times* 2011). Nevertheless, steps have been taken to secure the future role of unconventional fossil fuels, including shale gas at the EU level (Reuters 2011a).

The shale gas revelations have influenced energy strategy/policy and hopes in the two countries. In spite of their respective energy independence policies, the planned PolLit natural gas interconnector has been focused on by Lithuania's Prime Minister, Andris Kubilius, owing to the growing probability of exploring unconventional shale gas in Poland (Energa 2010). Indeed, the PolLit interconnector is one of the main projects envisaged by the NEEIS. Back in Warsaw, Poland's Prime Minister, Donald Tusk, has hinted at the possible implications of Polish shale production on existing gas trade structures. During a press conference, he did not rule out gas supply contract renegotiation with Gazprom once the potential of the shale gas reserves are estimated and they become available for recovery (Gazeta Prawna 2010).

The shale gas developments have also been subject to EU-level discussions which have, to some extent, cooled down the shale gas euphoria in the region. Highlighting environmental aspects pertaining to shale gas exploration and exploitation, the European Energy Commissioner, Guenter Oettinger, suggested that it is not a question of whether shale gas would make Europe more independent of conventional Russian and Norwegian gas. Rather, the question is on which level – EU or national – regulation pertaining to the security of its exploration should be made to ensure safe operations (Gazeta Prawna 2011). While it is still too early to predict the future success of unconventional gas in Poland, undoubtedly it has had profound implications on the strategic energy policy decision-making process within the two governments.

3.3 The third energy package and energy in(ter)dependence

While Russia's role is important in European natural gas imports, it is also 'often exaggerated' (Lévêque et al. 2010: 12). Indeed, in the energy complexes of the two countries there are a great many perceptions about the omnipresence of Russia, and its energy behemoth Gazprom. Attempts to unbundle Gazprom networks in the two countries have been made. In this vein, the Third Energy Package (TEP), together with the Unbundling Principle, has been a reaction to the recurring gas crises,

in particular that of 2006. Needless to say, the legislation, in particular the Unbundling Principle provisions applied by the two countries, has been 'interpreted as being principally directed at the Russian state owned gas-company Gazprom' (De Jong 2008: 106).

Highly dependent on Russian energy, Lithuania's NEEIS envisages undertaking the provisions of the EU's TEP of implementation of Ownership Unbundling in the electricity and gas sectors (Republic of Lithuania 2010: 8) as a measure to insert more competition into its energy market. This is in opposition to its two Baltic neighbours – Latvia and Estonia – which declared themselves isolated markets owing to their energy markets remaining nascent and of uncompetitive structure. As a backup to his country's decision, Latvia's President, Valdis Zatlers, has pointed out that the Baltic trio is unable to build a free gas market without interconnection infrastructure being in place (The Lithuania Tribune 2011b). The declaration sparked a strong reaction from Lithuania's Prime Minister, Kubilius, who made a complaint to the EC. Underscoring Gazprom's dominant position on the Lithuanian energy market, he complained about the company's alleged punishment of Lithuania for implementing the TEP by means of charging Vilnius higher gas prices than the other two Baltic States (Gazeta 2011). The securitisation of Lithuania's energy sector is taking place with implicit backing of the EU. Prime Minister Kubilius underlined the Commission's support for the country's aim to implement the TEP through the unbundling of ownership (The Lithuania Tribune 2011a).

In response to the perceived threat from Russia to Lithuania's energy sector, the government has made energy, in particular natural gas issues, a very political and discussed subject. By demanding that the senior management of the national gas monopoly Lietuvos Dujos resign, Lithuania's Energy Minister has politicised energy relations with Russia in a bid to raise the issue of highly priced gas. He blamed the national gas monopoly for allegedly serving the interests of Gazprom rather than those of the Lithuanian state and the company's gas consumers. In addition to applying 'political and economic pressure', the Energy Minister accused the LD shareholder Gazprom of violating the company's privatisation deal and of unfair pricing. The Energy Minister requested that Lithuania's demands be fulfilled, whilst threatening Gazprom by filing a case with the international Court of Arbitration in Stockholm and with the cancellation of the privatisation deal with the company (Reuters 2011b). While the charges remain explicit, these developments suggest that the absence of successful securitisation does not take away the perception of energy insecurity and the Russian threat.

As for Poland, it has tried to uphold its role as a transit state since the early 1990s. Despite the shale gas optimism, in order to meet anticipated energy demand, Poland signed a long-term energy deal with Gazprom in 2010. The contract extended the previous one by 15 years until 2037, whilst allowing Gazprom to use all the transit capacity of the Yamal pipeline which runs across Poland to Germany, through to 2045 (Bloomberg 2010). Critics argue that this contracted increase in gas deliveries is not treated 'as a normal commercial transaction' by Gazprom in that it aims at perpetuating Polish dependence on the company (Socor 2010). Such deals are viewed as a way to undermine the TEP provisions for energy market liberalisation, which rest on the separation of supply and generation/production networks that go against the logic of the 2009/73/EC directive. By setting such a contractual precedent, Gazprom is said to be able to retain exclusive use of the Yamal-Poland transit pipeline. Despite the strategy of transit avoidance set out by the Nord Stream and South Stream projects, the Yamal corridor is still very important to meet the contractual obligations Gazprom has *vis-à-vis* its energy export markets, in the 'old' Europe (Socor 2010).

Warsaw's persistence in securing its role as a key transit state for Russian gas is increasingly challenged at the EU level. As the Polish Prime Minister reassured concerns pertaining to Poland's gaining long-term gas security, in Brussels, the EC representatives expressed their reservations. According to the Energy Directorate of the Commission the long-term contract prevents the applicability of the EU's Unbundling Principle, as it denies midstream access to other market players (*New York Times* 2010). Thus, the deal was questioned by the EC as breaking EU energy law (Gazeta Wyborcza 2010). To ensure the contract's compliance with EU legislation, in particular the Yamal pipeline's independent management by Gaz System, which is independent of the two 48 per cent stakes of Gazprom and Poland's PGNiG, the EU intervened in these 'unusually protracted and largely secretive negotiations' to assure access to the pipeline for other countries (Businessweek 2010).

4. Conclusion

The direct effect of these developments has been the promotion of energy independence with immediate effects on the EU level policies of interconnection and diversity. Acts of successful securitisation of energy have proved difficult to attain within the jurisdictions of the two

countries owing to their EU memberships. Instead, securitising moves, in particular speaking about security prevailed as a way of acting upon energy insecurity and the Russian threat.

Owing to the inherited vulnerabilities of the two states, the securitising moves addressed to the economic sector have aimed at bending the rules of the game in the gas trade. However, as much as the Community level is concerned, the established gas trade structures and the energy interdependence between the EU and Russia have remained largely unshaken.

It is still too early to tell what the promise of unconventional gas reserves will be. As France places a moratorium on its shale gas exploration and Germany on nuclear energy post-Fukushima, the focus of attention among the biggest EU member states is increasingly on natural gas from its immediate neighbourhood. For this reason, the discourse of Europe's North-Eastern periphery is distinct. While it continues to use the political factor of the securitising of the economic sectors, it has not been able to come up with workable solutions for the problems it has identified. Ultimately, in the politics of the EU, the geopolitical needs of the big states remain the drivers of policy, and successfully securitised or not, the agency of smaller states is just as curtailed as it always has been.

Acknowledgements

The author would like to thank Dr James Worrall for his comments on earlier drafts of the chapter.

Notes

1. The Unbundling Principle is hereafter understood as 'the separation of the network business (natural monopoly) from the activities of production and supply as a pre-requisite for energy liberalisation process' (Ahner 2009: 2).
2. The ownership of the monopoly today comprises E.ON Ruhrgas International GmbH-38.9%, OAO Gazprom-37.1%, the Ministry of Energy of the Republic of Lithuania-17.7% and 6.3% remaining with small shareholders (LD Website www.dujos.lt).
3. Consistent with the EU's three pillar energy policy established through Treaty of Amsterdam (EU 1997) and comprising of security of supply, competitiveness and environmental protection.
4. The other categories include: 'Trojan Horses', 'Strategic Partners', 'Friendly Pragmatists' and 'Frosty Pragmatists' (Leonard and Popescu 2007: 2).
5. The NEEIS was endorsed by the Republic of Lithuania Government with resolution no. 1426 in October 2010.

Bibliography

Aalto, P. (2007) The EU–Russian Energy Dialogue: Europe's Future Energy Security. Aldershot: Ashgate.

Ahner, N. (2009) Unbundling of energy undertakings in relation to Corporate Governance Principles, ERGEG Workshop on Unbundling and Corporate Governance in the 3rd Package. Berlin, 25 September.

Anonymous (2011) Author's correspondence with a well-informed source from the Business community who preferred to stay anonymous.

Barysch, K. (2011a) The EU and Russia: All smiles and no action? *CER Policy Brief*, http://www.cer.org.uk/pdf/pb_russia_april11.pdf. [Accessed April 2011].

Barysch, K. (2011b) Shale gas and EU energy security, *Centre for European Reform*, http://centreforeuropeanreform.blogspot.com/2010/06/shale-gas-and-eu-energy-security.html. [Accessed June 2010].

BBC (2010) Should Gazprom fear shale gas revolution? http://news.bbc.co.uk/1/hi/business/8609131.stm. [Accessed June 2010].

Belyi, A.V. (2003) New dimensions of energy security of the enlarging eu and their impact on relations with Russia. *Journal of European Integration*, 25(4), pp. 351–69.

Businessweek (2010) Poland, Russia sign long-delayed gas agreement, http://www.businessweek.com/ap/financialnews/D9J5CKQ80.htm. [Accessed November 2010]

Buzan, B. and Wæver, O. (2003) *Regions and Powers: The Structure of International Security*. Cambridge: Cambridge University Press.

Buzan, B., Wæver, O. and de Wilde, J. (1998) *Security: A New Framework for Analysis*. Boulder CO, London: Lynne Rienner.

Cheniere Energy (2011) Cheniere and Klaipėdos Nafta Sign agreement to address natural gas needs and assess LNG options for the Lithuanian Company, http://phx.corporate-ir.net/phoenix.zhtml?c=101667&p=irol-newsArticle&ID=1562695&highlight. [Accessed May 2011]

De Jong, J. (2008) The 2007 energy package: The start of a new era? in: M. Roggenkamp and U. Hammer (eds) *European Energy Law Report V*. Antwrpen: Intersentia, pp. 95–108.

Economist, the (2011) Cable ties: Energy in north-east Europe, 7th–13th May 2011.

EIA (2011) World shale gas resources: An initial assessment of 14 regions outside the United States, U.S. Department of Energy, http://www.eia.gov/analysis/studies/worldshalegas/pdf/fullreport.pdf. [Accessed May 2011].

Energa (2010) Ziemny, łupkowy czy biogaz? Elektroenergetyka stawia na gaz, http://www.grupaenerga.pl/16242.xml. [Accessed March 2011].

EU (1997) Treaty of Amsterdam amending the Treaty on European Union, the Treaties establishing the European Communities and related acts, *Official Journal C 340*.

Forsal (2010) Lista koncesji na poszukiwanie złóż gazu łupkowego w Polsce, http://forsal.pl/artykuly/436372,lista_koncesji_na_poszukiwanie_zloz_gazu_lupkowego_w_polsce.html. [Accessed August 2010]

Gazeta (2011) Литовский премьер призвал страны ЕС к солидарности в борьбе с «монополистом» «Газпромом», http://www.gazeta.ru/news/business/2011/02/05/n_1690590.shtml. [Accessed February 2011].

Gazeta Prawna (2010) Premier: z uwagi na gaz łupkowy możliwa zmiana umowy z Gazpromem, http://biznes.gazetaprawna.pl/artykuly/428154,premier_z_uwagi_na_gaz_lupkowy_mozliwa_zmiana_umowy_z_gazpromem.html. [Accessed February 2011].

Gazeta Prawna (2011) Gaz łupkowy nie zastąpi w Europie gazu konwencjonalnego, http://biznes.gazetaprawna.pl/artykuly/494227,gaz_lupkowy_nie_zastapi_w_europie_gazu_konwencjonalnego.html. [Accessed March 2011].

Gazeta Wyborcza (2010) Umowa gazowa z Rosją skłóciła Polskę z Komisją Europejską, http://wyborcza.biz/biznes/1,101562,8579950,Umowa_gazowa_z_Rosja_sklocila_Polske_z_Komisja_Europejska.html. [Accessed December 2010].

Government of the Republic of Lithuania (2010) Government approves of Lithuania's energy independence strategy, http://www.lrv.lt/en/news/top-stories/?nid=224. [Accessed October 2010].

Investors Hub (2011) Polish Foreign Minister: Shale gas a great chance for Poland, http://ih.advfn.com/p.php?pid=nmona&article=47725808. [Accessed June 2011].

Itar-Tass (2011) RWE, Gazprom agree on strategic partnership in Europe, http://www.itar-tass.com/en/c32/186233.html. [Accessed July 2011].

Izvestia (2010) Тихая газовая революция, http://www.izvestia.ru/economic/article3139618/. [Accessed March 2010].

Janeliūnas, T. (2009) Lithuanian energy strategy and its implications on regional cooperation, in: A. Sprūds and T. Rostoks (eds) *Energy: Pulling the Baltic Sea Region Together or Apart?* Riga: Zinatne.

Leonard, M. and Popescu, N. (2007) *A Power Audit of EU-Russia Relation*, Policy Paper of the European Council on Foreign Relations.

Lévêque, F. et al. (2010) *Security of Energy Supply in Europe: Natural Gas, Nuclear and Hydrogen* (Loyola de Palacio Series on European Energy Policy). Cheltenham: Edward Elgar.

Lietuvos Dujos (2009) AB Lietuvos Dujos Consolidated Annual Report 2009.

Lithuania Tribune, the (2010) Polish President- Mazeikiai oil sale not discussed, 25 August.

Lithuania Tribune, the (2011a) European Commission supports our reforms of gas sector – PM Kubilius, 2 March.

Lithuania Tribune, the (2011b) Baltic States should be more united in creating a single gas market; Latvian President, 5 April.

Ministry of Economy of Poland (2009) Energy policy of Poland until 2030. Warsaw, 10 November 2009.

New York Times (2010) Europe seeks to block polish gas contract, http://www.nytimes.com/2010/10/11/business/energy-environment/11gazprom.html?_r=1. [Accessed October 2010].

New York Times (2011) Insiders sound an alarm amid a natural gas rush, 25 June 2011, http://www.nytimes.com/2011/06/26/us/26gas.html?_r=1&pagewanted=all. [Accessed June 2011].

Oldberg, I. (2005) Foreign policy priorities under Putin: A tour d'horizon, in: J. Hedenskog et al. (eds) (2005) *Russia as a Great Power: Dimensions of Security Under Putin*. London: Routledge.

Przeworski, A. (2009) Rozmowa o demokracji z prof. Adamem Przeworskim, http://wyborcza.pl/1,97738,6737963,Rozmowa_o_demokracji_z_prof__Adamem_Przeworskim.html. [Accessed June 2009].

Raabe, S. (2011) *Trotz der Atom-Katastrophe in Japan plant Polen den Einstieg in die Atomenergie*. Konrad-Adenauer-Stiftung Länderbericht, http://www.kas.de/wf/doc/kas_22326-1522-1-30.pdf?110401152350. [Accessed April 2011].

Ramboll (2009) *Future Development of the Energy Gas Market in the Baltic Sea Region: Ramboll Final Report*, Prepared for the EU Commission DG TREN C1, http://ec.europa.eu/energy/infrastructure/doc/2009_bemip_ramboll_bemip_final_report.pdf. [Accessed June 2010].

Republic of Lithuania (2010) National energy (Energy Independence) strategy, 6 October 2010.

Reuters (2011a) Factbox: Main results of EU energy summit, 4 February, http://uk.reuters.com/article/2011/02/04/us-eu-summit-energy-results-idUKTRE7134NC20110204?pageNumber=3. [Accessed February 2011].

Reuters (2011b) Lithuania demands fair gas price from Gazprom, http://www.reuters.com/article/2011/03/03/lithuania-gazprom-idUSSAT00912520110303. [Accessed March 2011].

Rydström, F. (2011) Energy and martyrdom: The consequences of playing the blame-game, http://www.lithuaniatribune.com/2011/03/26/energy-and-martyrdom-the-consequences-of-playing-the-blame-game-by-fredrik-rydstrom/. [Accessed March 2011].

Shale Gas Conference (2011) Managing Europe's emerging resource, 18 May, Warsaw, Poland.

Socor, V. (2010) Warsaw wavers between Brussels and Gazprom. *Eurasia Daily Monitor*, 7(178), http://www.jamestown.org/single/?no_cache=1&tx_ttnews%5Btt_news%5D= 36992. [Accessed October 2011].

Szymańska, M. (2010) Natural gas sector in Poland, http://www.usea.org/Publications/Documents/US-Poland_Energy_Roundtable_Presentations/04_Shale_Gas_Presentations/Szymanska_-_MoEconomy_2010.06.21_polish_gas_sector.pdf. [Accessed April 2011].

Taylor, S. (2007) France and Germany lead unbundling opposition, http://www.europeanvoice.com/article/imported/france-and-germany-lead-unbundling-opposition/58045.aspx. [Accessed February 2010].

Terterov, M. (2011) Energy security within trans-national energy policy: Firms vs Governments, Producers vs Consumers, Russia vs the EU, http://gpf-europe.com/upload/iblock/c33/mt.bsis.guest_lecture_march_22_final_version.pptx. [Accessed May 2011].

Wæver, O. (1996) European security identities. *Journal of Common Market Studies*, 34(1), pp. 103–32.

Watkins, E. (2010) Nord stream consortium awards pipeline contracts. *Oil & Gas Journal*, 108(4), http://www.ogj.com/articles/print/volume-109/issue-45/general-interest/unconventional-oil-gas-focus-poland-p1.html. [Accessed February 2011].

WSJ (2011) U.S. estimates Poland has 300 years worth of shale gas, http://blogs.wsj.com/emergingeurope/2011/04/07/u-s-estimates-poland-has-300-years-worth-of-shale-gas/?mod=wsj_share_twitter. [Accessed May 2011].

7

Russian External Energy Strategy: Opportunities and Constraints

Ekaterina Demakova and Jakub M. Godzimirski

1. Introduction

Russia is an important global economic player and a major producer of raw materials. Its energy policy is shaped by various actors and by structural (mostly market-related) factors over which those actors have only limited influence. This study has two key foci: the relationship between state energy policies and international markets, which is the main theme in the study of international political economy (Gilpin 1987, 2001), and the relations between the Russian state and Gazprom as interpreted through the principal–agent theory (Eisenhardt 1989). The approach here is interdisciplinary, with elements from foreign policy analysis, strategic studies and international political economy.

Gilpin describes the relationship of state and market, and especially the differences between these two organizing principles of social life, as a recurrent theme in scholarly discourse. He underlines that 'the tension between these two fundamentally different ways of ordering human relationships has profoundly shaped the course of modern history and constitutes the crucial problem in the study of political economy'(1987: 10–11).

In the case of Russia's external energy policy, a key issue is the question of interdependence between Russia and the EU. The interdependence seems to be among the crucial factors shaping Russian energy policy, as it 'establishes a power relationship among groups and societies' and 'creates vulnerabilities that can be exploited and manipulated' (Gilpin 1987: 23).

In his more recent study analysing the situation in the post-Cold War setting, Gilpin (2001: 12) presents his views on the relationship between the economic and political goals pursued by key global actors, including

Russia. He holds that the nature of the global economy will be heavily affected by their security and political interests; further, that it is highly unlikely that these powers will leave the distribution of the global economic product and the impact of economic forces on their national interests entirely up to the market.

The principal–agent theory provides a good approach for analysing the interaction between political and economic factors in Russia. In order to understand how the state and companies operate in this energy market environment, we must grasp the relationship between the interests of the Russian state and the interests of commercial actors (like Gazprom) who operate either in their own capacity or as 'agents' of the state. As Wright et al. (2001: 414) argue, 'by narrowly focusing on the principal–agent relationship, and with a given set of assumptions, the contribution of this theory is that it provides logical predictions about what rational individuals may do if placed in such a relationship.' As a result, the agency theory 'provides a unique realistic, and empirically testable perspective on problems of cooperative effort' (Eisenhardt 1989: 72).

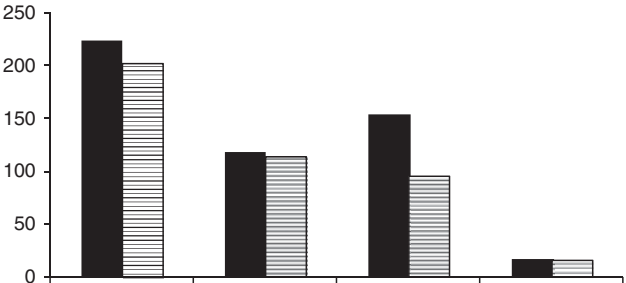
In order to survive in the international energy environment, Russia's energy policy makers, a group made up of key political actors and representatives of the energy business community, must possess certain adaptive skills and shape their policies accordingly. This study presents some examples of the main market-related challenges those actors have to cope with, especially when responding to the changing strategic energy environment and turmoil on the global and regional energy markets caused by the recent financial crisis.

We begin with a comprehensive analysis of Russia's external energy relationships and challenges. The second part of the chapter narrows the scope of the analysis to the gas dimension of these external energy relations, focusing on the relationship between the state and Gazprom. The third part presents a preliminary assessment of the main factors influencing Russia's external energy policy.

2. Russia's energy policy: External dimension

Russia has in recent decades developed many new energy relationships and strengthened some old ones. Two of these relationships remain crucial for the country's strategic energy designs – Russia's energy relationship with itself and its energy relationship with the EU.

In 2010, Russia increased its oil production by 2.2 per cent to 505.2 million tons. Gas production increased by 11.7 per cent to



	Crude oil, mln tons	Oil products, mln tons	Natural gas, bcm	Electricity bkW/h
Total export	223.7	119.2	154.6	17.2
Export to far abroad	202.5	114.2	95.3	16.6

Figure 7.1 Structure of Russian export by product type
Note: Chart represents figures from January to November 2010.
Source: Russia's Federal agency for state statistics www.gks.ru.

650.3 bcm, and coal production reached 320.9 million tons (6.5 per cent more than in 2009). Some 53.2 per cent of energy was consumed in the domestic market, with the rest exported (Mitrova 2011: 3). See Figure 7.1.

In 2010, Russia exported 185 bcm of gas (10.6 per cent more than in 2009), 246.8 million tons of oil and 97.4 million tons of coal (*Prime Tass* 10 January 2001). Russian energy exports generate huge revenues – according to official data (GKS 2011), energy exports stood for 67.5 per cent (USD 267.7 billion) of the country's export revenues, and revenues were 33.1 per cent higher in 2010 than in 2009. Russia's most important external energy relationship is undoubtedly the one with the EU countries: they receive almost two-thirds of Russia's energy exports, with the remainder going to the CIS and Asia-Pacific region (Mitrova 2010: 5).

The energy relationship with Europe is a part of Russia's external energy policy in which a range of other actors, such as energy customers, transit areas and energy rivals, also play a major part. According to official sources, Russia intends to increase and diversify its energy exports (Russian Government 2009). Exports are expected to increase by 15–20 per cent in the next decade and stabilize at this higher level after 2025 (Table 7.1).

For the time being, Russia's most important external energy relationship is with the European Union. This cooperation focuses

Table 7.1 Planned increase of Russian energy exports to Asia Pacific region

Region	Level of export in 2005	Planned export in 2030
Asia-Pacific Region (APR)		
Oil, million tons	20	70–80
LNG, bcm	5.04	70–75
China, gas, bcm	0.25	30

Source: Russian government, 2009.

on enhancing infrastructure connections, general consumer–producer cooperation, business-to-business links and the facilitation of foreign investment (Youngs 2009: 81).

Over the past 30 years, this energy relationship has become heavily politicized and even securitized. The process of securitization grew, especially in the mid-2000s – mainly as a consequence of EU enlargement, as a result of Russia's energy transit disputes with Ukraine and Belarus, and due to the fact that many actors have accused Russia of using its energy resources for political purposes (Hill 2004; Saunders 2008). Others, however, have been more sanguine, noting that if Russia were to use its energy resources as a political tool it would be detrimental primarily to its own interests (Goldthau 2008).

There are certain structural economic, political, geopolitical, reputational, legal and technological factors that may impact on Russian energy strategy abroad in the short-, mid- and long-term perspective.

2.1 Factors and actors

In order to understand what those factors are and how they can influence Russia's position as an energy actor we start by looking at the current situation and at Russia's most important energy relationships today. We then go on to identify the factors that may affect Russia's situation in a mid-term and a longer term perspective.

The main factor influencing Russia's position on the international energy market today is undoubtedly that it has become a key producer, exporter and consumer of energy. Unlike many other major energy producers and exporters, Russia is also a major global consumer of energy. And that means that Russian decision makers have to find a balance between the interests of the country's producers and exporters of energy commodities, and those of domestic consumers of energy.

A central factor in recent years has been the huge volatility of prices of energy commodities (Figure 7.2). Indeed, this is listed by Keohane (2009: 41) as one of five global game-changers.

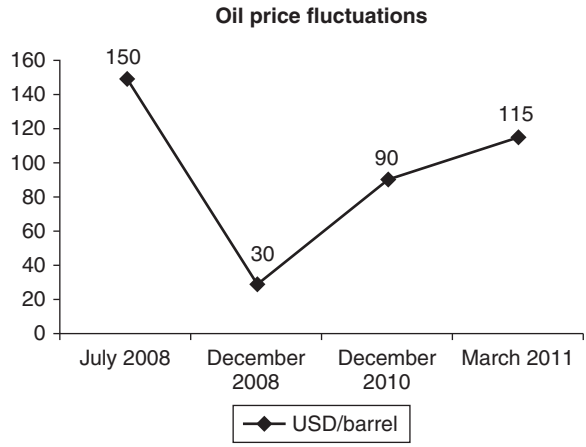


Figure 7.2 Oil-price volatility, 2008–11

The main single reason for such fluctuation in the past few years has been the global economic crisis, which has led to lower economic activity and, therefore, falling demand for energy commodities (Houssin 2009). With the economic crisis gaining momentum in the US and other Western economies in the second half of 2008, Russia entered a downward spiral. Especially Russian gas exports to Europe suffered. (Dickel 2009; Honore 2011).

The fact that the current economic crisis has had such a devastating impact on the Russian economy and energy trade is also a result of Russia's inability to diversify its energy supplies. Especially when it comes to gas, Russia's dependence on European market is seen as a major short- and mid-term factor shaping Russian energy policy. Until recently, Russia has managed to cope with this European gas challenge by embarking on a policy of bilateralizing its energy relations with individual European countries, such as Germany, Italy or France. This may, however, be about to change with the EU's decision to implement the Third Energy Package starting on 3 March 2011.

That the EU seems poised to adopt a more orchestrated approach is due to at least three factors: serious problems with energy supplies caused by Russia's quarrels with transit countries (Ukraine and Belarus), the entry into force of the Lisbon Treaty and the EU's increasing focus on energy policy in the context of the ongoing debate on climate change.

Given the strong interdependence between Russia and the EU, the new EU approach to energy cooperation must be taken into account

when strategic decisions on energy are made in Russia. However, both Russia and the EU seem to be redefining their priorities in energy cooperation. The EU's energy policy focuses on three issues – competitiveness, security of supply and sustainable development. The EU plan until 2020 is to build an energy-efficient Europe with a pan-European integrated energy market, to extend European leadership in energy technology, to protect consumers and achieve the highest level of safety and security, and to strengthen the external dimension of the EU energy market.

This, in turn, has led Russia to raise the question of overdependence on the EU market as narrowing the room for manoeuvre in shaping the country's long-term energy strategy. In particular, gas exporters have worried about security of demand in the liberalizing European market (Abdullayev 2011). During his visit to Brussels on 24 February 2011, Prime Minister Putin accused the EU of conducting a policy that could lead to higher energy prices and was detrimental to Russian energy interests, as it would limit the access of Russian companies to investments in European downstream markets. In that way, the Russian state decided to throw its weight in order to protect the interests of Russian energy companies. A few months earlier – on 26 November 2010, during his meeting with German Chancellor Angela Merkel – Putin had been even harsher, accusing the EU of preparing the legal ground for what he described as the uncivilized robbery of Russian energy assets.

Russia's increasing nervousness and lashing out at the EU is to a certain extent a result of the new emerging situation in the country's energy – and first and foremost gas – relations with its most important energy customer. Alexey Gromov has listed four conjunctural challenges that may influence Russian gas strategy in the years to come (Gromov 2010). He sees two high-degree risks – uncertainty as to export expectations and uncertainty as to export prices and contracts; one medium-degree risk (uncertainty as to transit), and one low-degree risk, which he labels as uncertainty of technologies.

2.2 Russian–German energy relations: What is in the offing?

In order to understand the impact of this combination of factors, we now look into Russia's energy relations with Germany. Germany is a highly pertinent case for examining the opportunities and challenges facing Russia (Table 7.2). Firstly, Germany is dependent on importing energy and other raw materials, and this lack of own resources is seen as an important driver in its economic and foreign policy (Kwiatkowska-Drozdz 2011).

Table 7.2 Germany as a global energy player in 2009 and Russia's position

Commodity	Rank, energy consumers	Rank, energy importers (share of global imports)	Volume of imports	Russia's share in German imports (2007)
Oil	8	6 (4.4 per cent)	98.1 million tons	31.7 per cent
Natural gas	5	2 (10.4 per cent)	93.8 bcm	41.7 per cent
Coal	13	7	36.5 million tons	25.9 per cent

Although in 2009 Germany had to import 97 per cent of its oil, 84 per cent of its gas and 72 per cent of its coal, and Russia has established itself as major supplier of energy to Germany (BGR 2010), it is only Russia's supplies of gas to Germany that have been politicized in both the German and the European debate. Energy cooperation has become the backbone of the German–Russian strategic partnership, even causing some tension in Germany's relations with European and Atlantic allies.

During the two years of crisis, gas supplies from Russia to Germany dwindled from 40 bcm in 2007 to 36.2 bcm in 2008 and 31.5 bcm in 2009. However, this drop seems to have been in the short term, as in 2010 supplies reached 35.3 bcm.

In his interesting study on the energy cooperation between Russia and Germany, Khodov (2010) presents the history of this relationship, its current state and future challenges. Between 1973 and 2010, the USSR /Russia exported 1200 bcm of gas to Germany. However, in 2009, exports of Russian gas to Germany were 16 per cent lower than that in 2008, due mainly to the economic crisis which led to falling demand for energy and less demand for Russian gas on the German market, as well as lower industrial production in Germany.

There are also some important longer term factors likely to influence demand for Russian gas on the German market. The first is the new structure of the German economy, with de-industrialization, higher share of services in Germany's GDP, falling activity in the construction sector and the growing focus on energy efficiency. Further important elements include the introduction of several effective energy-saving measures, Germany's return to the nuclear option and a greater focus on alternative sources of energy. Germany is becoming the leading 'green energy power', increasing the share of energy produced from

renewable sources of energy like wind, solar and geothermal power. In addition, German companies are about to launch several ambitious energy projects that could have huge impacts on the energy situation in Europe. Khodov (2010) describes the Desertec project as an example of Germany's new approach to energy policy and claims that its realization would definitely affect the position of Russia not only on the German but also on the European energy market.

Russia is still seen in Germany as an important strategic energy partner. Especially in the gas sector, Russian–German cooperation – symbolized for instance by the Nord Stream pipeline – has been flourishing, and the Russian state seems to play a key part in the realization of Gazprom's European strategy (Godzimirski 2011). The relationship between the Russian state and Gazprom, one of the three most profitable companies worldwide, is far more complex, however.

3. Who calls the shots: The state, or Gazprom?

The relationship between the Russian state and Gazprom is one of the factors that influence Russia's external and internal energy policy. These relations could be described as a contractual interrelation that can be explained by the principal–agent theory. Principal–agent interactions occur when economic inefficiencies arise during an economic exchange between two parties (a 'principal' and an 'agent') who have different goals and different levels of information (IEA 2007: 55). The principal–agent theory highlights two important situations:

- where the goals of principal and agent differ,
- where principal and agent differ in their attitudes towards risk taking (the risk-sharing problem) (Eisenhardt 1989: 58).

Discrepancies in goals are determined by differing attitudes to the issue at hand, and the risk-sharing problem is more complex. The principal hires an agent to resolve the special case under conditions favourable to the principal at that moment. The agent, however, may have different interests in and attitudes to the case, so attitudes towards the same risk may differ.

Agency theory focuses on a contractual interrelation as well as information flows between agent and principal. Gazprom is a purely commercial actor aimed at improving its financial results, but the company may also be used for political purposes. In turn, the Russian state represents interests of various agents, which might include the Russian

foreign policy-making community, the oil industry lobby, the foreign investor lobby, and not only Gazprom. In this case, Gazprom and the Russian state are interlinked by mutual obligations and information-interest-based behaviour of both agents. Gazprom was established when the Soviet Ministry of Gas Industry was transformed into a corporation through the privatization process. The culture of interrelation between the state and the state-owned company ministry is remarkable for the relations between the two. But the new economic, social and political environment has forced the adoption of new types of behaviour. Let us take a closer look at role-sharing between the agent and the principal.

In order to understand this complex and opaque interrelation, we will examine the following areas: upstream policy, domestic market development, transforming relations with transit states, as well as supporting the diversification of gas routes and markets (the APR in particular).

3.1 Upstream policy

Upstream policy in relation to the development of new fields and associated investments is the domain of Gazprom, which owns most Russian gas fields of greatest economic significance. New fields have little likelihood of becoming commercially viable, for various reasons – location, complex geology and high investment requirements. The independent gas producers may not have sufficient financial instruments available.

The *Law on Foreign Investments in Strategic Sectors* stipulates the detailed procedures for foreign companies' involvement in sectors regulated by the Russian state. The law is intended to limit foreign investments in strategic sectors of the Russian economy in order to curb the influence of foreign owners. There are only few state-owned companies which are interested in the development of gas fields – in practice, Gazprom and Rosneft.

Russia's gas transmission system (GTS) is included among the strategic sectors because pipeline transport of gas is listed as one of the natural monopolies in Article 4 of the *Law of the Russian Federation No. 147-Fz (I) on Natural Monopolies*. Construction of the GTS started in the 1940s; it is 164 thousand km long and is now fully owned by Gazprom, indeed representing 51.6 per cent of the company's total assets (Gazprom 2009). Gazprom does not want to allow Russia's independent gas producers and foreign companies to use it to ship their gas, as it has no wish to lose control over one of its main strategic assets.

In this case, it seems that Gazprom is the principal, whereas the state is the agent that is to help Gazprom achieve the goal of control of access

to strategically important and commercially attractive gas fields and to protect its control over the transmission system. However, this situation may not necessarily be set to continue. In the mid- and longer term perspective Gazprom's monopoly may prove a disadvantage, since the lack of proper investments may result in declining gas production and problems with gas supplies on the state-controlled gas market.

Risks arising from the adoption of the *Law on Foreign Investments in the Strategic Sectors* were shared in various ways between the state and Gazprom. For Gazprom as a company, it was a matter of protecting the GTS and guaranteeing access to new gas fields, without competition from other companies. This question is important, given the decline in production from existing gas fields. But in the mid- to long-term perspective, Gazprom may face problems with access to the EU market because of its monopolistic position and the EU liberalization policy introduced with the entry into force of the Third Package in March 2011.

A monopoly also exists for gas exports, including LNG and condensate. Here Gazprom seeks to obstruct the development of independent gas producers (mainly oil companies but also some independent gas producers), whether Russian or potential foreign ones. It is illustrative to examine the situation of access to new fields and access to the export market.

The *Law on Gas Export* (adopted in 2006) may negatively influence the interest of other gas producers in exploring and developing gas resources in Russia, because those actors would be able to supply gas only to the domestic market – which still generates much lower profits than export sales.

Also here Gazprom (through the Russian Gas Society RGO) seemed to play the role of principal. The state reacted to the demand of RGO, and the law was adopted very quickly. The law represents a big commercial advantage for Gazprom, as it provides for partial compensation for loss of revenues from operations on the Russian domestic gas market. The state position was clarified by Vladimir Putin during his presidency. During a summit with German Chancellor Gerhard Schröder in October 2003, Putin presented Russia's new approach by saying: 'we are not going to divide Gazprom. [...] in the case of gas, it has to deal with the state (i.e. the Russian Federation). The gas pipeline network is the creation of the Soviet Union, and it is only the Russian Federation which can keep it in functioning order, even if we speak about its parts located outside Russian territory.' The monopoly has benefits for both parties: the state has control over exports of gas and minimizes the risk of non-controlling behaviour of other potential gas exporters; Gazprom receives compensation for losses on the domestic market.

The adoption of the *Law on Gas Export* provides Gazprom and the state with some important benefits. However, Gazprom was forced to yield to pressure from the independent producers by opening for export of LNG from the Yamal fields by Novatek. Several rounds of negotiations with Gazprom involving top Russian politicians resulted in the signing of the contract for export of LNG. One reason for that rather unexpected development was that one of Russia's most influential energy players, Gennadiy Timchenko, who had good political connections, acquired a significant portion of shares in Novatek (Russian Business 2009).

3.2 Domestic market

Gazprom monopolizes the domestic market by controlling the pipeline (Stern 2005: 20). At present, state control of gas prices on the domestic market is economically unprofitable for Gazprom. This has meant losses only partly compensated by export sales. The economic crisis of 2008–09 caused an 18 per cent drop in gas sales on export markets. For Gazprom, liberalization of domestic gas prices would be advantageous. Also oil companies (mainly Rosneft) have been pushing for internal market liberalization. They need access to pipelines and export in order to sell their own associated gas. According to recent statistics, nearly 15 bcm of associated gas is flared every year (Komkov et al. 2010). If shipped to markets, this gas could generate additional revenues for oil companies.

In April 2010, the Board of Directors of Gazprom approved a proposal on the conditions and procedure of transiting to formula-based gas pricing from 1 January 2011 (Gazprom 2010). This formula stipulates that natural gas prices will be shaped according to the principles of equal profitability between domestic and foreign gas supplies with due regard to inter-fuel competition. This pricing formula is to apply only for industrial customers; prices for the private sector will be regulated by the state.

The use of this pricing formula is to increase Gazprom revenues from sales on the domestic market starting from 2014. It will also allow the independent gas producers to participate in domestic gas trade through the electronic brokers' board Mezhregiongas (Mezhregiongas 2011a). Currently, the following companies participate in Mezhregiongas cooperation: OAO Novatek, ZAO Transnafta, OAO NK Rosneft, OOO NG Itera, OOO Novourngoyskaya Gasovaya Company (Mezhregiongas 2011b).

Russian state may consider a restructuring of Gazprom. But, according to many analysts, Russia is unlikely to shift to a UK model of asset

unbundling. Instead, Gazprom may be forced to grant independent producers access to the GTS.

In the case of domestic market and transmission of gas, it is clear that Gazprom has been pressed by the state to adapt to market rules, and the company may have to allow access to the GTS to independent gas producers. But Gazprom can be still viewed as the principal, because it is in the long-term interest of any company to get the state authorities to liberalize gas prices, as this may open for higher profits from sales on the domestic market. But the state has also been able to press Gazprom, for instance with the GTS and independent gas companies, and in the case of Mezhregiongas.

Although the planned and partly implemented liberalization of the domestic gas market has no direct bearing on gas exports, it is important for understanding how these developments may influence Gazprom's export policies. The main point here is the question of economic incentives for the company – if it could earn as much by selling gas on the domestic market, Gazprom could be less motivated to sell gas abroad. In the current situation, Gazprom is the dominant actor on the domestic market, with a quasi-monopolist position and with good relations with the political decision makers. When operating abroad, the company has to adapt to a much less friendly environment and relate not only to gas customers but also to foreign energy-market regulators and not least to several transit countries that have already shown their ability to inflict damage on the company's strategic interests. (Detailed analysis to be provided by S. Pirani.)

3.3 Diversification of gas routes and markets

The following interests are central to the issue of diversification:

- the energy interdependence between EU and Russia and the politicization of their relations
- the shifting logic and geography of energy markets and the growing role of LNG

Technical matters between Gazprom and European companies became a political issue discussed at the top level; some of them have even become securitized. The EU wants its main supplier of gas, Russia, to accept liberalization of its gas market, to make it more transparent. The Russian authorities and Gazprom alike have rebuffed those proposals, rejecting any possibility of the EU model being introduced in Russia. Both

seem to favour strict state control of the sector. However, this unwillingness to accept the EU's rules – the lack of liberalization of the sector – may impose some restrictions on Russia's ability to participate in the European downstream market.

During the October 2003 summit with Schröder, Putin expressed Russia's approach very directly by saying that the Russian authorities would not allow Gazprom to be divided. As noted, he added that the gas pipeline network had been built during Soviet times and that only Russia could keep it running, included those parts of it located outside Russia (*ITAR Tass* 9 October 2003). This declaration clearly conflicted with the preferences of politicians in Washington and in European capitals who wanted to open up the Russian energy market for transnational companies that could then dominate Russia's energy sector.

The second issue is Gazprom's view on participation in the international gas market. The company is interested in participating in the European spot market and trading (for instance, through its Gazprom Marketing and Trading company operating in the UK). Direct access to EU markets can provide new financial opportunities impossible under the pre-liberalized system, as Russian gas was sold at the EU country border. Moreover, Gazprom has recently adopted a new strategy introducing domestic gas market trading in Russia by 2014. However, Gazprom wants to have a clear understanding about the place of take-or-pay contracts within the EU markets. Gazprom is afraid that unbundling will lead to a mismatch between supply obligation and transport capacity access, like it happened during liberalization of the gas market in the UK. But with the liberalization process and the internal Russian process, Gazprom may lose its highly profitable share in the EU gas market. The state-supported programme of opening up new opportunities in the APR market has no immediate commercial value for Gazprom, and is mainly seen as one stage in the realization of the state strategy. From the principal–agent perspective, the state, acting as principal, hires Gazprom as agent; the goal is to develop the Russian Far East and redirect gas flows to the APR. This could be seen as part of a broader strategy of national security aimed at the economic development of Russia's less densely populated regions to counter 'the Chinese demographic threat'.

4. Opportunities and constraints: Some preliminary conclusions

Having explored the factors influencing Russia's energy position at three levels – on global energy markets in the post-crisis situation, in

relation to the major collective energy customer, the EU, and with the most important bilateral energy partner, Germany – we now turn to the short-, mid- and long-term opportunities and constraints influencing Russian thinking on energy.

4.1 Strengths and opportunities

The most important strength Russia has in the energy sphere is undoubtedly the country's resource base, which provides energy self-sufficiency and secures Russia's international position. Given the resource/production ratio, we might hold that this strength should be described as long-lasting, especially as regards gas.

Also, Russia's production and export capacity seems an important strength that makes its energy sector attractive to foreign investors. The fact that two Western IOCs – BP, entering into collaboration with Rosneft and Total, establishing a collaboration with Novatek – have recently decided to strengthen their Russian engagement is a clear indication of that attractiveness. Also Russia's dominant position on two of the three most important global energy markets – Europe and Asia – is one of its energy strengths. Especially promising is Russia's increasing presence in the rapidly expanding Asian market, driven mostly by growing demands for energy in both China and India (Keohane 2009: 41).

Russia has an impressive, though partly outdated and worn-out, energy infrastructure and human energy capital with experience from the domestic and global energy sectors, especially onshore and in harsh northern conditions. Mapping the expertise of major energy players, Russian Minister of Economic Development Elvira Nabiullina (2009) identified Gazprom, GazpromNeft, Rosneft and Zarubezhneft as the key Russian technology leaders.

In recent years, Russia has also started realization of some projects that will help the country diversify its energy exports, increasing especially the share of the Asian market. However, Russia and China have to reach an agreement on prices, which may prove difficult due to greater availability of LNG and with the looming shale gas revolution in China (Amos 2011).

The seemingly quick post-crisis recovery in Germany, and rising German and global scepticism towards the nuclear option caused by recent events in Japan, will probably drive demand for Russian gas and oil on the European energy market. Also Russia's good political relations with key EU countries like Germany, France and Italy, and improving

relations with Poland, may help Russia regain some of its lost standing in Europe.

The adoption of a more comprehensive and coherent approach to energy policy on the part of the Russian political elite under Putin can also be said to be a strength – especially in Russia's relations with the EU, where some problems remain regarding designing and implementing a unified energy policy towards external suppliers of energy.

Russian authorities also claim that the country's political stability should be considered a strategic asset (Goble 2011). Deputy prime minister and head of the governmental TEK Commission Igor Sechin stressed recently that Russia has political stability, the old Soviet infrastructure having been effectively replaced; Russia has built and is about to build new gas pipelines and has created a modern banking system (White 2011a). However, this description may be too optimistic as Russia still has to cope with several weaknesses and threats.

4.2 Weaknesses and threats

The high energy intensity of the Russian economy is a key factor that hampers Russia from playing an even more important role in the global energy game. Although substantial progress has been made over the last decade, Russia still lags behind the key Western economies here.

One reason why Russia has failed to meet its energy-efficiency goals is the unsatisfactory progress of energy price reform, especially in the gas sector. Another reason why the Russian economy is still energy-inefficient is the high level of underinvestment and wear-and-tear of the infrastructure. Russian authorities, aware of the huge investment needs in the energy sector, seem to have recognized that this is an important issue, and have made several attempts at improving the investment climate so as to attract foreign investors (Odynova 2011; White 2011a).

Another factor is the country's reputational problem. Energy cooperation with Russia is perceived as challenging, and dependence on Russia as an energy supplier is politicized and even securitized (Godzimirski 2009). Fears of how Russia could use its energy resources for political purposes were summed up by Saunders (2008: 1): Russia could threaten to shut off energy supplies or increase prices to extract political concessions, exploit existing debts for energy supplies or other economic weakness in energy-consuming countries in order to buy or take over assets in those countries' energy sectors, seize the assets of foreign energy companies operating in Russia or force Western firms to sell their

assets, and that Russia's status as an energy power could encourage more assertive Russian behaviour abroad.

In addition to those political image problems, Russia must cope with very real infrastructural and geographical bottlenecks, with transit dependence, the lack of market diversification and the need to cope with new technological challenges, like the development of offshore fields. Acknowledgement of some of those problems has resulted in several strategic projects intended to help Russia address some of those issues. The construction of the Baltic Pipeline System and Nord Stream are the most important such projects in the northern part of Russia, but similar projects elsewhere – like South Stream, ESPO or the Altai pipeline – are also high on the agenda. It seems very probable that in the mid-term perspective Russia will cope with most of these issues, not least by paying greater attention to market diversification and energy cooperation with Asia (Amos 2011).

Until recently, Russia was able to control the transit of energy from Central Asia to external markets, but with the construction of the pipeline linking Turkmenistan and Kazakhstan with China, it seems set to lose this competitive advantage, which will also mean less Russian influence on the energy policies of other FSU energy producers.

As regards the lack of offshore expertise, the solution chosen by Russian policy makers was to invite Western companies with relevant expertise to join forces with one of the Russian national champions. An example here is the deal on cooperation in developing the Shtokman gas field between Gazprom and Total and Statoil. The recently announced collaboration between Rosneft and BP and Exxon Mobil is also intended to help Russia cope with that issue – as Igor Sechin recently stated, BP's experience was one of the reasons for choosing BP as a partner (Horowitz 2011; Swint and Read 2011; White 2011b).

The deal with BP was also meant to help Russian energy companies to internationalize their activities. Rosneft was to get a 5 per cent stake in BP, giving Rosneft a slice of ownership of BP's global operations, which stretch from Alaska to the Gulf of Mexico, North Africa, Azerbaijan and the North Sea. (Clark and Webb 2011).

Cooperation with Western energy companies is also intended to help Russia cope with another serious problem: the expected stagnation of gas and oil production. Developing new fields will require not only more investment but also new technology. In addition, Russia has to face the climate-change challenge as the international community focuses more and more on global warming, on CO_2 emissions and calls for 'de-hydrocarbonization' of the global economy (Mason 2011).

New technologies may indeed provide solutions to some of Russia's current and future energy problems. But the new energy technologies may also pose a serious threat to the country's quasi-hegemonic position on the European gas market. Although some Russian actors dismiss the current focus on non-conventional gas as a PR stunt, it may prove to be a real strategic challenge (EIA 2011; Mason 2011).

Also, new approaches to energy policy and new technologies may pose challenges to the Russian energy sector in the long run. According to recently presented Russian forecasts for global energy, and its impact on energy relations with the EU (Gromov 2011; Institute of Energy Strategy 2010), Russia could be affected by all three long-term scenarios. In the case of the phase catastrophe scenario taking place after 2025–30, Russia would have problems in maintaining energy infrastructure and the sustainability of its energy system and could even lose control over its own natural resources. Realization of the phase stagnation scenario would also affect Russia negatively, as its hydrocarbon resources could become marginalized and its energy sector much less profitable. And thirdly, if the phase transition scenario were to materialize, Russia could be affected, through a growing technological gap between Russia and its main partners.

How Russia's energy policy makers will cope with these challenges will depend on their understanding of their country's role as a global energy player. We see tensions growing between the more mercantilist, state-centred approach advocated by Prime Minister Vladimir Putin and the more liberal approach favoured by President Dmitrii Medvedev. Only time will tell which approach will prevail and what the consequences will be for the international energy position of Russia.

Bibliography

Abdullayev, Teymur (2011) 'Dogovornyy gaz', *Rossiyskaya gazeta*, 21 February, at http://www.rg.ru/2011/02/21/gazzz-site.html, accessed June 2011.

Amos, Howard (2011) 'Oil and gas head up and east', *Moscow Times*, 18 January.

Belyi, Andrey (2009) *Why a Political Accord is Needed to Make EU–Russia Energy Relations Work*. Madrid: Elcano Royal Institute, at www.realinstitutoelcano.org.

BGR (2009) *Energy Resources 2009*. Hannover: Bundesanstalt für Geowissenschaften und Rohstoffe.

BGR (2010) *Reserven, Ressourcen und Verfügbarkeit von Energierohstoffen*. Hannover: Bundesanstalt für Geowissenschaften und Rohstoffe.

Buckley, Neil and Tobias Buck (2006) 'Duma votes for Russian gas export monopoly', *Financial Times*, 16 June, at http://www.ft.com/cms/s/f042c74a-fd59-11da-9b2d-0000779e2340.html, accessed 15 April 2011.

Clark, Andrew and Tim Webb (2011) 'American hostility grows over BP's deal with Russian state oil company', *The Observer* (UK), 16 January.

Dickel, Ralf (2009) 'Energy interdependence between EU and Russia: Security of supply/security of demand', presentation prepared by Energy Charter Secretariat for CEPS, at http://www.ceps.eu/files/2Dickel.pdf, accessed 15 April 2011.

EIA (2011) *World Shale Gas Resources: An Initial Assessment of 14 Regions Outside the USA*. Washington, DC: U.S. Energy Information Administration.

Eisenhardt, Kathleen M. (1989) 'Agency theory: An assessment and review', *Academy of Management Review*, 4(1), pp. 57–74.

Energy Charter Secretariat (2007) 'Putting a price on energy: International pricing mechanisms for oil and gas', URL http://www.encharter.org/index.php?id=218&L=0, accessed November 2011.

European Commission (2008) 'Europe's current and future energy position. Demand – resources – investments'. Brussels, 13 November, at http://ec.europa.eu/energy/strategies/2008/doc/2008_11_ser2/strategic_energy_review_wd_future_position2.pdf, accessed 15 April 2011.

Gazprom (2009) *IFRS consolidated financial report for the year ended 31 December 2009*. Moscow: Gazprom, at http://www.gazprom.ru/f/posts/28/135151/ifrs_rus_12m2009.pdf, accessed 15 April 2011.

Gazprom (2010) *Board of Directors discussed the perspective of transition to liberal gas pricing strategy*. Moscow: Gazprom. at http://gazprom.ru/press/news/2010/april/article97630/, accessed 21 April 2011.

Gilpin, Robert (1987) *The Political Economy of International Relations*. Princeton, NJ: Princeton University Press.

Gilpin, Robert (2001) *Global Political Economy: Understanding the International Economic Order*. Princeton, NJ: Princeton University Press.

GKS (2011) O sostoyanii vneshney torgovli v 2010, at http://www.gks.ru/bgd/free/b04_03/IssWWW.exe/Stg/d01/31.htm, accessed 15 April 2011.

Goble, Paul (2011) 'Window on Eurasia: Medvedev says Egyptian scenario won't happen in Russia, but not everyone agrees', *Johnson Russia List* 2011#34.

Godzimirski, Jakub M. (2009) 'Energy security and the politics of identity', in Gunnar Fermann (ed.) *Political Economy of Energy in Europe: Forces of Fragmentation and Integration*. Berlin: Berliner Wissenschafts Verlag, pp. 173–206.

Godzimirski, Jakub M. (2011) 'Nord stream: Globalization in the pipeline', in Elana Wilson Rowe and Julie Wilhelmsen (eds) *Russia's Encounter with Globalization*. London: Palgrave Macmillan, pp. 159–184.

Goldthau, Andreas (2008) 'Resurgent Russia? Rethinking Energy Inc.', *Policy Review,* 147: 53–63, at http://www.hoover.org/publications/policy-review/article/5714, accessed 15 April 2011.

Grib, Nataliya, Dmitriy Butrin and Yevgeniy Belov (2010) 'Belorussiyu povyshli v zadolzhennosti (Belarus Owes More)', *Kommersant*, 16 June, at http://www.kommersant.ru/doc/1387161, accessed 16 April 2011.

Gromov, Alexey (2010) 'Russian gas project up to period 2030: Myth or reality?', presentation given at Baden-Baden group meeting in Prague 25–26 April, at http://www.energystrategy.ru/ab_ins/source/Gromov(WIEN_24-27.04.10).ppt, accessed 16 April 2011.

Gromov, Alexey (2011) 'Roadmap of cooperation between Russia and the European Union in the energy sector until 2050', presentation

at the EU–Russia Energy Dialogue meeting in Brussels, 18 February, at http://www.energystrategy.ru/ab_ins/source/EU_Russia_Roadmap_Gromov-18.02.10.ppt, accessed 16 April 2011.

Hill, Fiona (2004) *Energy Empire: Oil, Gas and Russia's Revival*. London: The Foreign Policy Centre.

Honore, Anouk (2011) *Economic Recession and Natural Gas Demand in Europe: What Happened in 2008–2010?* Oxford: Oxford Institute for Energy Studies.

Horowitz, Brook (2011) 'BP can improve Rosneft's corporate culture', *Moscow Times*, 20 January.

Houssin, Didier (2009) 'Global energy markets: Key trends and strategic challenges', presentation at CEPS Task Force on Energy Security, 4 March, Brussels.

Institute of Energy Strategy (2010) Kontseptsiya foresayta mirovoy energetiki do 2050, at http://www.energystrategy.ru/ab_ins/source/project-2050_12.02.10.ppt, accessed 16 April 2011.

International Energy Agency (IEA) (2007) 'Mind the gap', at http://www.iea.org/textbase/nppdf/free/2007/mind_the_gap.pdf, accessed 15 April 2011.

Keohane, Robert O. (2009) 'The old IPE and the new', *Review of International Political Economy*, 16(1): 34–46.

Khodov, Ivan (2010) 'Mirovoy krizis i rossiyskiy gaz. Eksport rossiyskogo gaza w Germaniyu. dolgosrochnyye faktory padeniya sprosa', *Svobodnaya Mysl*, 12: 91–106.

Komkov, Nikolay, Maria Krotova and Boris Titov (2010) *Analysis of Conditions and Mechanisms of Liberalization of Natural Gas Market*, at http://institutiones.com/industry/1364-rynok-prirodnogo-gaza.html, accessed 21 April 2011.

Kwiatkowska-Drozdz, Anna (2011) 'The natural resources deficit: The implications for German politics', *OSW Commentary*, 46, URL: http://www.osw.waw.pl/en/publikacje/osw-commentary/2011-02-08/natural-resources-deficit-implications-german-politics, accessed November 2011.

Latukhina, Kira (2011) 'Dialog bez granits', *Rossiyskaya gazeta*, 25 February, at http://www.rg.ru/2011/02/25/putin.html, accessed 21 April 2011.

Leonard, Mark and Nicu Popescu (2007) *A Power Audit of EU–Russia Relations*, Policy Paper. Brussels: European Council on Foreign Relations.

Mason, Rowena (2011) 'Gazprom feels the heat as its gas market dominance is threatened', *Daily Telegraph*, 22 February.

Mezhregiongas (2011a) *About Broker Board*, Moscow: Mezhregiongas, at http://www.mrg.ru/etp_about, accessed 21 April 2011.

Mezhregiongas (2011b) *List of Contractors Participating in Express Delivery Trade*. Moscow: Mezhregiongas, at http://www.mrg.ru/etp_contragents_list, accessed 21 April 2011.

Mitrova, Tatyana (2010) 'The Russian energy strategy and Europe: A Russian view', Energy Research Institute RAS, presentation given at NUPI's annual conference on 15 October, Oslo.

Mitrova, Tatyana (2011) 'Strategy of the Russian energy sector development with its implication for the technologies', Center for International Energy Markets Studies, Energy Research Institute of the RAS.

Nabiullina, Elvira (2009) 'Analiz innovatsinnykh programm krupnieyshikh rossiyskikh kompaniy s gosudarstvennym uchastyem', presentation available at http://www.economy.gov.ru/minec/press/news/topnews20091225, accessed 21 April 2011.

Odynova, Alexandra (2011) 'At Davos, Medvedev defends Yukos trial', *Moscow Times*, 28 January.
Roze, Anna (2011) 'Gaz z podseleniyem', *Rossiyskaya gazeta*, 1 March, at http://www.rg.ru/2011/02/27/shmatko-site.html, accessed 21 April 2011.
Russian Business (2009) *Novatek is under control of Timchenko and Gazprom*, 29 May, at http://www.rb.ru/topstory/business/2009/05/28/084823.html, accessed 21 April 2011.
Russian Government (2008a) *Federal Law on Strategic Sectors*, adopted on 29 April 2008, Moscow.
Russian Government (2008b) *Russian Foreign Policy Concept*, adopted on 15 July 2008, Moscow.
Russian Government (2009) *Energeticheskaya strategiya Rossii na period do 2030 goda [Energy Strategy of Russia through 2030]* (Adopted by Decree of the Government of RF # 1715-p, 13 November 2009).
Saunders, Paul J. (2008) *Russian Energy and European Security: A Transatlantic Dialogue*. Washington, DC: The Nixon Center.
Stern, Jonathan P. (2005) *The Future of Russian Gas and Gazprom*. Oxford: Oxford University Press, for Oxford Institute of Energy Studies.
Swint, Brian and Stanley Reed (2011) Putin Proverb Seals BP's Arctic Deal After Hayward Woos Russia Bloomberg, 18 January.
White, Gregory (2011a) 'Russia's Sechin defends investment climate', *Wall Street Journal*, 22 February.
White, Gregory L. (2011b) 'Russian energy czar warns BP, partners', *Wall Street Journal*, 22 February.
World Energy Council (WEC) (2010) *Roadmap towards a Competitive European Energy Market*. London: World Energy Council.
Wright, Peter, Ananda Mukherji and Mark J. Kroll (2001) 'A reexamination of agency theory assumptions: Extensions and extrapolations', *Journal of Socio-Economics*, 30: 413–29.
Youngs, Richard (2009) *Energy Security: Europe's New Foreign Policy Challenge*. Abingdon: Routledge.

8

Russo-Ukrainian Gas Wars and the Call on Transit Governance

Simon Pirani

1. Introduction

This chapter will argue that in the Russo-Ukrainian 'gas wars' of 2006 and 2009, the dynamics of post-Soviet transition, economic events, and shifting commercial relationships were more significant than political factors. The ways in which the 'gas wars' exposed the limitations of both international governance mechanisms (specifically, the Energy Charter Treaty) and of European Union energy policy (which was divided in its approach to them) will be discussed. Finally, factors that may influence the Russo-Ukrainian gas relationship in future will be considered.

The 'gas wars' had four groups of causes: first, mutual dependencies (Russia on Ukrainian transit, Ukraine on Russian gas imports) and, second, other legacies (including the disproportionate role of gas in Ukraine's economy) inherited from the Soviet Union; third, tensions generated by the oil boom of 2002–08, corresponding changes in Russian economic policy and the economic crisis that followed in 2008–09; and fourth, political factors and specifically the widening gap between Russian and Ukrainian foreign policies.

2. Post-Soviet legacies

The tension between Russia and Ukraine that culminated in the 'gas wars' was heightened by mutual dependencies – Ukraine on Russian gas, Russia on Ukrainian transit – that originated in the Soviet period. These mutual dependencies made conflict likely, regardless of the political relationship between the two sides. That is why Russia has fought 'gas wars' not only with Ukraine but also with Belarus, despite its political relationship with Belarus being much warmer.

The gas export business established by the Soviet Union was inherited by Russia, and gas remains second only to oil among earners of export revenue. Almost all of Russia's gas exports are to Europe (in round numbers, reaching 160 billion cubic metres (bcm) in 2008 and falling to 140 bcm in 2009 and 2010) and to CIS countries, mostly Ukraine (70–80 bcm in the early 2000s, falling to 60 bcm in 2009 and 2010). Of the exports to Europe, about three-quarters are transported through Ukraine and the remainder through Belarus.

Ukraine played a key role in the genesis of the Soviet gas industry. In the 1950s, Ukraine accounted for nearly half of total Soviet gas output; Ukrainian production peaked in 1975 at 68.7 bcm (nearly half of the Soviet total in that year). But by then, the large western Siberian fields had begun producing. For the 15 years until the Soviet Union collapsed, Siberian output rose, and Ukrainian output fell constantly, to about 20 bcm/year. Late Soviet history played a cruel trick on Ukraine: the more gas-intensive its economy became, with consumption rising to 118.8 bcm in 1990, the more it substituted gas produced locally with gas transported from western Siberia and central Asia. This laid the basis for post-Soviet Ukraine's heavy dependence on imported gas. The proportion of imports in Ukraine's gas balance increased from 56% in 1985 to 81% in 1992. (Pirani 2007: 17–18.) It has fallen since then, but is still very high: in 2006–08 it was 70–72%.

In the early post-Soviet period, Ukraine and Russia faced shared problems: economic slump, stimulation of 'shock' reform by international institutions and the emergence of especially parasitic forms of capitalism. Ukraine bore the extra burden of dependence on imported energy. The new, relatively weak Russian state, for its part, relied heavily on revenues from gas sales to Europe, especially since Gazprom, the national gas company, remained under state control (albeit tentative at times), while most oil and metals companies moved rapidly into the private sector.

A cycle of problems between Russia and Ukraine persisted through the 1990s: large-scale deliveries to Ukraine of relatively cheap gas; accumulation of Ukrainian debts to Russia, linked to domestic non-payment; theft of gas from the transit system; and Russian pressure on Ukraine to hand over infrastructure in return for debts. Ukraine's largest debts for Russian gas were accumulated immediately after independence ($4–4.5 billion in 1991–94) – and they would have been larger still, but for the slump, which caused a sharp decline in gas consumption (by 29% from 118.8 bcm/year in 1990 to 85.0 bcm/year in 1996). The problem of debts was exacerbated by the ubiquity of barter arrangements, that is mainly

payment by Russia with gas for transit services but also payment by Ukraine with manufactured goods for central Asian gas. Whereas barter in general receded from former Soviet economies after the 1998 rouble devaluation, the Russo-Ukrainian gas-for-transit arrangement persisted until 2006. (IEA 2006: 62–64; Krasnov and Brada 1997: 828; Pirani 2007: 18–21.)

From 1994, Ukraine's economy and state finances were stabilised. But little progress was made in energy sector reform. The gas sector was dominated by increasingly powerful privately owned trading companies. In the import business, the main player from 1996 was Itera of Russia, which from 1998 supplied all imported gas except that supplied by Gazprom in lieu of transit fees. From 1999 Itera shipped Turkmen gas to Ukraine (Pirani 2007: 20–22). In the chaos that followed the break-up of Soviet industrial organisations, control of gas inputs gave a powerful advantage; some of the traders that competed with Itera in the gas market became the founders of Ukraine's most powerful business empires. The gas trading concession system, established in 1996 with support from the World Bank, under which selected traders were awarded exclusive rights to import and sell gas, benefited such traders. It was abandoned after two years, and a vertically integrated state-owned company, Naftogaz Ukrainy, established embracing almost all gas and oil production and transport, and gas supply and distribution. (Balmaceda 2006: 45–61.)

3. Ukraine as a gas-dependent state

Ukraine's economic recovery began in 1999–2000, stimulated by consumer demand growth both domestically and in Russia, its main export market, and by the increase in the world prices of steel, chemicals, and other exports. But Ukraine remained one of the world's most energy-intensive economies. Moreover, gas has the largest share of total primary energy supply: 47%, compared to 23.6% for coal, 16.2% nuclear, 12.4% for oil and 0.9% for renewables. (Government of Ukraine 2006: 9; IEA 2006: 75–77.)

Ukraine's gas demand averaged 73.6 bcm/year in 2003–08. Roughly, 24–29 bcm/year was consumed by industry, including metals (9–10 bcm/year) and chemicals (8–9 bcm/year); 6–9 bcm/year by the power sector, supplementing coal, the main fuel; 12–13 bcm/year by the district heating sector; and 19–22 bcm/year by residential and public sector consumers. A further 7–8 bcm/year was used for technical purposes, that is mainly as fuel for pipeline compressor stations. Demand fell slightly

from 2006, as gas prices rose, but really sharp falls came only in 2009, and only in industry, which contracted in the recession.

There are essentially two sources of supply: (1) Ukraine's own production of around 20 bcm/year, which will remain secondary to imports even if it were to rise in line with the most optimistic projections. (2) Gas imported from and through Russia. Gas from Turkmenistan, and small quantities from Uzbekistan, were imported to Ukraine until 2005. These volumes have to be transported via Russia, and sales can only be arranged with Russia's agreement. They were ended on Russia's initiative and are unlikely to be resurrected soon.

Ukraine inherited from the Soviet Union not only one of the world's largest gas transport networks (with annual nameplate input capacity of 280 bcm and output capacity of 175 bcm) but also a gas storage system with a capacity (34 bcm) second only to Russia's and equal to half of the EU's total. Much of this storage is close to Ukraine's western border and could in future serve central European markets. Fees paid by Russia for the transit of gas to Europe are a significant source of revenue for Ukraine: between 2005 (when the gas-for-transit barter scheme was ended) and 2008, these fees amounted to $1.5–2.2 billion per year, that is between a quarter and a third of its gas import bills of $3.2–8.4 billion.

From the mid-1990s, Russia sought to gain ownership and/or management control of the gas transit network in Ukraine and other neighbouring states. This policy reflected both Russia's political aim of maintaining a sphere of influence in the former Soviet Union and the commercial aim of minimising costs and increasing efficiency of gas transit. Some Ukrainian governments were tempted to agree to such proposals, but all ultimately rejected it as strategically risky (as it would deprive them of an important bargaining counter in relations with Russia) and politically unpopular. However, they also failed to manage the transit fee income effectively and left insufficient funds for maintaining and upgrading the system.

Following an attempted compromise which came to nothing – the formation of a Russo-Ukrainian pipeline consortium in 2002 – and Ukraine's 'Orange revolution', opinion in Moscow moved in favour of diversifying gas transit away from Ukraine. The 2006 dispute with Ukraine redoubled Russian determination to press ahead, and the Russian and German governments swung strongly behind the construction of the Nord Stream pipeline, which will carry Russian gas to Germany via the Baltic Sea, without transiting any other country. The final investment decision was taken, and construction began in 2009, shortly after the 'gas war', in spite of the prevailing economic

uncertainty. The first 27 bcm/year string of the pipeline will be commissioned in 2012.

In 2007, Russia cancelled transit of about 14 bcm/year of gas to southern Russia via eastern Ukraine, rerouting it across its own territory. This reduced the total volumes transited via Ukraine to 115 bcm, from an average of 129 bcm/year in 2000–06. Ukrainian transit volumes rose again to 120 bcm in 2008 and crashed to about 93 bcm in 2009 and 99 bcm in 2010, due to the collapse in European demand.

4. Drivers for Russia's changing approach to gas exports: New policy priorities

The context for the first Russo-Ukrainian 'gas war' in 2006 was the relentless rise in oil prices in the decade up to 2008, and the concurrent economic recovery in Russia and Ukraine. Oil prices rose steadily from about $15/barrel (bbl) in 1998, with a brief pause in 2002, to $60/bbl in 2006; thence they soared to a peak of more than $140/bbl in 2008 before falling steeply and then stabilising at about $70/bbl, in 2009. European gas prices, which are tied to oil prices by contract terms, followed a similar trajectory. In Russia the commodities export revenues on the one hand made possible the economic recovery, but on the other, gave it a one-sided character, as Russia was – and still is – over-dependent on these revenues.

The recovery underpinned the Russian government's assertion of increased control over the oil sector. Whereas in the 1990s the weak Russian state had struggled even to tax the oil sector effectively, the 2000s were characterised by an aggressive drive to return some privatised oil assets to the state, culminating in the Yukos affair of 2003–05, and by increased taxation. This shift was underpinned by an ideology of state-guided capitalism that repudiated the extreme 'free market' enthusiasm of the 1990s while embracing liberalisation and privatisation. The corollary of this was a more assertive geopolitical stance, articulated in opposition to NATO expansion in central Europe and culminating in the military conflict with Georgia in August 2008.

The new economic approach influenced Gazprom, Russia's state-controlled gas company that accounted in this period for five-sixths of production (now about three-quarters) and all exports. Gazprom, Russia's largest company, was transformed into a flagship for state-directed capitalism. In 2006, after Gazprom's share structure was regularised with a 50.1% state holding, ownership rules adjusted and additional shares sold on international markets, its market capitalisation

rose several times over to more than $250 million, making it at that time the world's third largest company by that measure. Its management moved further towards using commercial methods prevalent in the oil and gas industry internationally.

This drive to turn Gazprom into an energy company funded on, and integrated with, international markets, implied ending heavily discounted gas sales, not only to Ukraine, but also to other net importers (most significantly Belarus, which had 'gas wars' with Russia culminating in brief supply interruptions in 2004 and 2007) and to Russian domestic customers. Gazprom managers had lobbied government on this issue since the early 2000s, in the face of political pressure against removing discounts both from industrial lobbies, for which cheap energy is an important subsidy, and from politicians who fear that rapid changes might trigger unrest. (Overland and Kutschera 2011: 311–31.)

In the mid-2000s, as European gas prices (which in the long-term contracts that dominate the market are linked to the prices of oil products, and thereby to oil) rose rapidly, the yawning differential between European netback levels and Ukrainian import prices was treated by market-minded Gazprom managers as an implicit loss. By the mid-2000s, political leaders in both Russia and Ukraine acknowledged the principle that former Soviet importers should pay European netback prices, that is prices equal to the levels in the European market, minus additional transport costs. In November 2006, the Russian government adopted the same principle for the Russian domestic market, and set out a timetable for its implementation by 2011 (subsequently postponed, most recently to 2015). The 2006 'gas war' was, in the first place, driven by a dispute about how, when and at whose expense the differential between Ukrainian import prices and 'European netback' levels would be closed. The issue was not resolved in 2006 but was aggravated still further by the sharp rise in European gas prices in 2006–08 and climaxed in the supply interruption of January 2009.

Table 8.1 shows how, as European prices galloped up and political haggling continued to affect the bargaining process, Ukrainian prices remained far below the European netback level and by 2008 were wider than ever. The differential was only closed as a result of the 2009 dispute, and a discount restored – funded by the Russian government instead of Gazprom – in 2010.

5. Ukrainian political factors

The 'gas wars' were not just a price dispute. Political factors were also at work, especially after the Orange revolution of December 2004. Prior

Table 8.1 Annual average Ukrainian and Belarussian gas import prices

$/mcm	2003	2004	2005	2006	2007	2008	2009	2010
Ukraine import prices	50	50	44–80	95	130	179.5	232.54	257
Belarus import prices	34.37	46.68	55.08	55.08	118	126.5	148	188
European border price	147.6	157.8	213.7	285.2	294.1	418.9	307.8	323.7

Note: As a rough guide, extra transport costs between Ukraine or Belarus and the European border are $30–40/mcm.
Source: OIES estimates, company announcements, press reports.

to it, the political leadership in Moscow – which saw President Leonid Kuchma of Ukraine as an ally, albeit a difficult one at times – was unwilling to turn its perennial gas dispute with Kiev into a confrontation. Afterwards, Moscow's attitude shifted. Firstly, the street demonstrations unnerved many in the Russian political elite, who feared social unrest. Secondly, Moscow was displeased by the accession to the presidency of Viktor Yushchenko, who advocated distancing Ukraine from Russia and seeking closer ties with NATO and the EU. In February 2005, Yushchenko was appointed as his first prime minister Yulia Timoshenko, a multimillionaire gas trader and former energy minister, who made no secret of her determination to disrupt the gas import scheme devised by Gazprom and Kuchma's energy officials. At this point Moscow's political objectives, of putting Yushchenko and Timoshenko on the back foot, fell in line with Gazprom's commercial objective, of recouping the implied losses from CIS sales.

One way of measuring the importance of the political factor is to compare the implementation of the European netback principle in Ukraine and Belarus. In 2007, Russia conceded to Belarus a longer timetable for implementation, largely in return for the sale to Gazprom of a 50% stake in the Belarussian transport system. But Belarussian import prices have been consistently lower even than those implied by this timetable. In 2009, when both Ukraine and Belarus were timetabled to pay 80% of European netback, average Belarussian import prices for the year were more than $80/mcm (1000 cubic metres) lower than Ukraine's. (See Pirani 2009: 21–23, 39.)

The main causes of the 'gas wars', commercial and political, often became intertwined with a set of issues about arrangements for gas to be imported and transported, and the companies involved. In October 2001 Russia and Ukraine had signed an intergovernmental agreement

on gas, the last of a series of such agreements made since the break-up of the USSR. This formalised the gas-for-transit arrangement and the supply of the remainder of the gas Ukraine needed by Turkmenistan. Gazprom continued effectively to sub-contract to Itera the job of buying Turkmen gas, transporting it to Ukraine (via Gazprom's pipelines) and selling it there. While in the 1990s, this may have relieved Gazprom of the headache of collecting payment in Ukraine, in the 2000s, as prices and payment levels rose, it simply provided a handsome revenue stream to Itera – whose opaque ownership structure, unclear links with some Gazprom managers and success in asset-stripping gas production companies attracted criticism. Itera's role in the Ukrainian gas trade was reduced from trader to shipper, and in 2003 it was replaced entirely by Eural Trans Gas (ETG), headed by Dmitry Firtash, who later became known as one of Ukraine's richest billionaires. ETG's ownership structure was as opaque as Itera's, but it had the support of the new Gazprom management. (Pirani 2007: 26, 31–34.)

6. The oil boom and the 2006 'gas war'

In 2005, the year after the Orange revolution, Gazprom's stance on import prices and the import scheme toughened. First, Gazprom replaced ETG, to which it had no obvious ownership links, with Rosukrenergo, a Russo-Ukrainian joint venture of which it controlled 50%, and Firtash and another Ukrainian businessman controlled 50%. Second, Gazprom elicited from Ukraine an agreement to buy Turkmen gas only via Gazprom's export division, Gazprom Export, and not directly. By thus severing direct Turkmen-Ukrainian contractual relationships, Gazprom strengthened its control over the CIS's largest-volume gas trading nexus and prevented Kiev and Ashgabat playing each other off against Moscow. Finally, Gazprom adopted a more aggressive stance in the annual negotiations on import prices, prior to contract expiry on 31 December. Gazprom representatives suggested that prices had to rise from $50/mcm to $160/mcm or further. But hours before the year end, Russia provoked a stand-off, insisting that its gas would be sold at no less than $230/mcm. The dispute's economic driving forces were now aggravated by the political tensions between Moscow and Kiev: reportedly, the then president Vladimir Putin personally intervened in the negotiations at this point. (Paniushkin and Zygar' 2008: 160–62.)

Negotiations broke down and a crisis erupted, during which pressure was reduced in the transit pipelines for two days (1–3 January). Russia stopped delivering gas destined for Ukrainian customers but continued

to deliver volumes for transit to Europe. Ukraine diverted some of these volumes for its own use, causing shortfalls in deliveries of Russian gas to central European customers. This demonstrated the real constraint on Russia when it came to ending discounted gas sales: Ukraine showed that to slow down price increases it was prepared to exploit Russia's dependence on its transit services. Although Ukraine appeared to be in breach of its obligations under the Energy Charter Treaty, some European politicians – perhaps still inclined to sympathise with Ukraine after the 'Orange revolution' – largely ignored the dispute's origins and blamed the supply problems on Russia.

The crisis was resolved, and pressure in pipelines restored, with a corporate agreement between Gazprom, Naftogaz Ukrainy and Rosukrenergo, which amounted to an all-round improvement of the terms of trade for Russia and a strengthening of Firtash's position. (The agreement was published by Ukrainska Pravda 2006. See also Konoplianik 2006; Stern 2006.) The increase in Ukrainian import prices for 2006 was relatively modest: Ukraine paid $95/mcm to Rosukrenergo, for a 'cocktail' of gas almost entirely from central Asia. More significant were the changes in trading arrangements. The agreement ended the gas-for-transit barter system. It confirmed Rosukrenergo, Gazprom's ally and part-subsidiary, as the sole importer of gas to Ukraine and gave it a base in the domestic market through the trader Ukrgaz-Energo (a joint venture between Rosukrenergo and Naftogaz Ukrainy). Ukrgaz-Energo acted as the wholesaler to industrial customers in 2006 and to the whole Ukrainian market in 2007. And while fees paid to Ukraine for transiting Russian gas to Europe were raised by roughly 50%, the agreement provided for storage services to be sold to Rosukrenergo and Ukrgaz-Energo at bargain-basement rates, frozen for 30 years.

For the next 2 years, European gas prices rose relentlessly; the European netback level, to which everyone agreed import prices should be tied, followed. For many energy sector professionals, this underlined the urgency of demand reduction, primarily by energy saving. But a national strategy was lacking: political attention was instead concentrated on the battle over trade flows. Timoshenko, who returned as prime minister in December 2007, sought to deprive Firtash, whose main allies were in Viktor Yanukovich's Party of Regions, of both the lucrative Turkmen shipping contract and the foothold he had in the Ukrainian gas market. Firtash lost the battle – crucially, because Moscow soon indicated that he had served his purpose and that Gazprom would sell gas directly to Naftogaz, instead of using Rosukrenergo as an intermediary.

Commentary on Ukrainian politics tended to foreground the battle between Timoshenko and Firtash, and it has even been claimed that it was one of the main causes of the January 2009 gas dispute. However, although this and other shifting alliances among business groups has been a significant influence on the Ukrainian government, it is best understood as a secondary element in the larger picture of boom turning to slump and of the end of discounted gas sales.

In 2008, negotiations over import prices dragged on and were settled only after a brief reduction in import volumes by Gazprom on 3 March. An agreement between presidents Putin and Yushchenko provided for Rosukrenergo's trading role to be ended from 2009, and for Ukrgaz-Energo to be abandoned straightaway. In October 2008, the principle of direct Gazprom-Naftogaz sales, at prices linked to those in Europe, was reiterated at a meeting between Putin, now prime minister, and then Ukrainian prime minister, Timoshenko, Timoshenko. (*Gas Matters* 2008a, b.) As the economic crisis crashed down upon both Russian and Ukraine, the agreement to sideline Firtash held, but the move towards European netback broke down. Within three months, the partial thaw in relations gave way to the most serious 'gas war' of all, in January 2009.

7. The economic crisis and the 2009 'gas war'

Negotiations on import prices in December 2008 were conducted under the shadow of the financial crisis that had erupted in September in the US. Russia, whose economy had been growing at 6–8% annually for 6 years, was heading into recession. Oil prices had fallen from their July peak of $143/bbl to $30–40/bbl, with drastic consequences for Russia's export revenues. Gazprom knew that in 2009 its income would be slashed, as both gas prices and sales volumes fell. These conditions swept away any inclination in Russian government to avoid confrontation with Ukraine over gas import prices. So when contract negotiations remained unresolved by 31 December, and Ukraine failed fully to pay penalties for previous late payment, Moscow cut off volumes for export to Ukraine.

The impact of the financial crisis on Ukraine was greater even than on Russia. GDP would fall by an estimated 15% in 2009. Much of the steel and chemical industries – on whose export revenues Ukraine is heavily dependent – had been stood down. The IMF identified Ukraine as one of the states most at risk of banking sector collapse and sovereign default and in October 2008 provided it with a $16.4 billion emergency

loan programme. The industrial collapse meant that gas demand had fallen steeply from industry, that is from the best-paying customers. To Ukraine's political leaders, the prospect of a stand-off with Moscow, during which customers would be supplied from gas in storage, probably looked more appealing than a climbdown on price.

The gas dispute in January was the most serious ever, with supply to 16 EU member states and Moldova being reduced or stopped completely. Several Balkan countries suffered severe fuel shortages. The course of events, briefly, was as follows. (A detailed account is in Pirani et al. 2009. The Brussels view is European Commission 2009. See also Westphal 2009.) From 1 January, Russia delivered gas for transport to Europe but none for Ukraine's own consumption. Ukraine transported these volumes for Europe, but a dispute arose over the fuel gas for the pipeline system. Ukraine argued that its obligation to supply this was void in the absence of a contract and took it from the transit gas; Russia denounced this as theft and withheld corresponding volumes. On 6 January, Russia reduced supplies further, without explanation. On 7 January, deliveries of gas for Europe stopped entirely, with both sides blaming each other. Ukrainian engineers then switched the pipeline system to work in reverse, to transport gas stored mainly in western Ukraine to the largest population centres in the east and south. For 12 days neither side worked pro-actively to solve the dispute, and protests from Europe grew louder. On 19 January, negotiations between Putin and Timoshenko were followed by the signing of a 10-year supply and transit contracts between Gazprom and Naftogaz. (For leaked but undisputed versions of the contracts, see Ukrainska Pravda 2009a, b.)

These contracts amounted to another step away from post-Soviet political haggling, towards market-based commercial relationships. Crucially, Ukrainian import prices would no longer be set by annual negotiations but instead would be linked to the price of oil products in a manner similar to European contracts. (Prices were set at 80% of an agreed European netback level for 2009, and 100% of that level for the remaining 9 years of the contract.) The transit fees paid by Russia to Ukraine would also be linked to those in Europe. The conclusion of the direct contracts between Gazprom and Naftogaz confirmed Rosukrenergo's exit from the Ukrainian market and thus ended the involvement of intermediary traders that had complicated Russo-Ukrainian relations since the mid-1990s.

Nevertheless, the contracts were disadvantageous to Ukraine and proved unsustainable. Firstly, the 'base price', a proxy for European netback from which import prices were calculated, appeared to be at least

10% higher than it should have been. Secondly, the import contract included not only take-or-pay clauses similar to those used in Europe, but further onerous penalties on Ukraine for failing to offtake agreed volumes in any given month; the transit contract, by contrast, provides for negligible penalties if transit volumes are reduced. (See Pirani 2009: 22–24, 39.)

An opportunity to renegotiate the contracts came after Ukraine's February 2010 presidential election, which brought to an end the period of poor diplomatic relations with Russia that had characterised Yushchenko's presidency. In April 2010 the new president, Yanukovich, negotiated an agreement with his Russian counterpart Dmitry Medvedev that provided a discount not from Gazprom, as had been the case in the past, but directly from the Russian government, amounting (broadly speaking) to $100/mcm off import prices in return for a directly political concession, that is a 30-year extension on the lease of the Black Sea naval base in Crimea to Russia. (For details, see Pirani et al. 2010.) Despite this discount, import prices – and Ukraine's total import bill – were the highest ever in 2010.

In the year after the 'gas war', the Ukrainian economy experienced its sharpest recession since the early 1990s. This, together with rising prices, began to reshape its gas sector. In 2009, total Ukrainian gas consumption fell to 52.8 bcm, from 67.3 bcm in 2008. But this aggregate 21.8% fall was concentrated almost entirely in industry: demand there (excluding the power sector) fell by 41.9%, while demand among residential and district heating customers who pay heavily discounted prices fell by 2.3%. In 2010, total Ukrainian demand recovered to 57.6 bcm, still far short of the 2008 level. (All consumption statistics are from the energy ministry, as published in *Energobiznes*.)

The sharp fall in sales to industrial customers (who pay prices correlated with import prices) exacerbated the financial crisis of Naftogaz Ukrainy, while below-cost sales to district heating companies and households continued at roughly the same level. The IMF has treated Naftogaz Ukrainy's operational deficit, which it estimated at 2.7% of GDP (nearly $3 billion) in 2009, and 1.4% of GDP in 2010, as part of Ukraine's fiscal deficit. (IMF 2011.) The outlines of the Russo-Ukrainian gas trade are presented in Table 8.2.

The 'gas war' resulted in the implementation of the principle of European netback in Ukraine when European gas prices were at their highest. This combined with the economic recession (i) to produce the financial crisis at Naftogaz, (ii) to increase the economic burden on Ukrainian industry (leading, significantly, to a consolidation of

Table 8.2 The Russia–Ukraine gas trade

	2005	2006	2007	2008	2009	2010
Imports						
Volume imported, bcm	55.8	53.3	50.1	48	26.8	35.8
Average price ($/mcm)	44–80	95	130	179.5	232.54	257
Value of imports, $ billion	3.2	5.1	6.5	8.6	6.24	9.23
Transit						
Volume transited to Europe, bcm	121.5	113.8	112.1	116.9	92.8	98.7
Volume transited to CIS, bcm	14.9	14.7	3.1	2.7	3	3
Cost of transit ($/mcm/100km)	1.09	1.6	1.6	1.7	1.7	2.83
Value of transit services, $ bn (OIES est.)	1.5	2.2	2.1	2.34	1.88	3.31

Source: Energy ministry statistics, company announcements, OIES estimates.

chemical fertiliser producers), and (iii) to force into the political arena a discussion of market reforms and price increases. Collectively these events mark the beginning of the end of economic policies reliant on discounted gas sales and are significant for Ukraine and a harbinger of similar changes across the former Soviet Union.

8. The limitations of international governance mechanisms

The 2009 'gas war' highlighted the limitations of international governance mechanisms, and in particular the Energy Charter Treaty. The economic forces at work in the dispute also proscribed the EC's ability to act in solidarity with individual member states whose energy security was endangered, as envisaged in European Union treaties.

The Energy Charter Treaty (ECT) was conceived by the European Commission (EC) in the early 1990s, as a legal framework for energy supplies flowing from former Soviet states to Europe, and the 2009 'gas war' was precisely the type of dispute it was designed to forestall. The treaty, which covers investment, trade, transit and dispute settlement, entered into force in 1998; by 2008 it had 51 member countries. Gas transit was potentially an important area for its application. However the treaty's effectiveness was blunted because Russia, Europe's largest energy supplier, did not ratify it. (There is an extensive literature on the treaty. An important introduction is Walde 1996. Its application in the gas sphere is discussed in Mitrova et al. 2009; Yafimava 2011, chapter 9.)

Negotiations between the EC and Russia in the early 2000s on Russian ratification foundered on the issue of domestic pipeline access rules. On the one hand, it was assumed in Russia that acceptance of the transit protocol would require that Russian pipelines be made accessible to third parties; to deal with this, Russia proposed that at the expiry of any transit contract the current shipper be offered right of first refusal on pipeline capacity. On the other hand, Russia opposed the EC proposal for a clause concerning Regional Economic Integration Organisations, which would mean the EU being treated as a single economic entity rather than as a series of national entities. These issues were potentially close to resolution, but unresolved, when the 2006 'gas war' took place. The lack of response from Europe to Ukraine's apparent breach of the treaty hardened Russian political opinion against the treaty. (Mitrova et al. 2009: 427–30.)

In between the two 'gas wars', Russian relations with both the EU and the US deteriorated, and little progress was made on Russian ECT ratification. The Energy Charter secretariat, set up to oversee the treaty's implementation, thus played only a minor role in the dispute. It drew attention to Ukraine's obligation under the treaty to transit gas even if its own volumes were withheld, and made an offer to arrange mediation that went unheeded. A few days after the dispute ended, Prime Minister Putin argued that the Energy Charter 'had failed to become a working instrument' and proposed that work begin on a new international legal framework for energy security (Belyi et al. 2011).

Given the years of diplomatic effort put into the ECT, it seems unlikely that either Russian proposal will achieve swift results. (See Energy Charter Secretariat 2011.) The question remains as to why the ECT was unable to defuse the gas dispute. One reason was that the ECT was already weakened by the failure by Brussels and Moscow to overcome the obstacles to Russian ratification. Another was the precedent set by the 2006 dispute. It was perhaps not surprising that in December 2008, Ukrainian political leaders who faced the challenges of the recession opted for a dispute with Russia about fuel gas – the final trigger for the supply interruption – rather than prioritising treaty obligations. The economic imperatives on all sides proved stronger than the still-incomplete legal framework.

9. Outcomes

For Europe, the 2009 supply interruption highlighted the limits of the solidarity to which the EU aspires. The energy security of EU member

states in Eastern Europe and the Balkans was severely breached. The EC reacted to the crisis, first, by arranging monitoring of gas flows through Ukraine, and second, with diplomatic approaches to the Russian and Ukrainian governments. But neither initiative made much headway.

The EC's efforts were hampered by divisions in European attitudes to Russian gas imports. On the one hand, Gazprom's large European customers (i.e. energy companies such as Eon-Ruhrgas and ENI) perceived the 'gas war' as a failure of Ukrainian transit, which they looked to Gazprom, their contractual counterparty, to resolve. Import contracts provide for gas to be purchased at or west of Ukraine's western border, leaving the responsibility for managing transit risk up to that point with the seller, Gazprom. The companies saw no reason to transfer transit risk away from Gazprom. On the other hand, the EC and politicians in member countries tended to see the 'gas war' as part of a much larger geopolitical problem, that is the EU's excessive dependence on Russia's energy resources and the perceived danger that Russia would use this to its geopolitical advantage.

For the gas companies, the 2009 'gas war' hastened investment in two types of gas transport infrastructure: (a) the Nord Stream pipeline, essentially a transit diversification project; and (b) a series of relatively small projects in eastern and south-eastern Europe designed to mitigate the impact of any future supply interruption: constructing interconnectors, refurbishing storage or giving pipeline links reverse flow capacity.

There is no serious prospect that gas currently transported via Ukraine to central and southern European destinations will be diverted to the Nord Stream pipeline: that would be needlessly costly. Rather, Ukraine will lose bargaining power. With Nord Stream operational and the extra interconnections and storage, a suspension of transit through Ukraine could be mitigated more easily. Further in the future, after 2015, the South Stream pipeline could be built, which *would* be a direct alternative to Ukrainian transit.

In short, while 'gas wars' are possible during the next two years, after that the effect on Gazprom of Ukrainian threats to disrupt European transit will be diminished and could eventually be eliminated.

For the gas market, the recession of 2009–10 – which formed the background to the 'gas war' – marked a turning point in the economic conditions and in the development of gas markets. Factors that could shape relationships in the next few years include the following:

(i) *The movement in the European gas market away from oil-linked prices, and away from the predominance of long-term contracts*. Impetus has

been given to this process by the sharp fall in gas demand in 2009–10. This coincided with a surge upwards of oil prices, and a wide differential opened up between the oil-linked prices used in long-term contracts and gas prices on spot markets. European utility companies began to urge a more widespread use of spot prices. This may mean a movement in the coming years towards a market in which spot sales and exchange-based trading play a greater role and possibly also away from the widespread use of long-term contracts. The implications for Russian imports, which have been almost entirely on the basis of long-term contracts with oil-linked prices since their inception, are profound. A change would imply a completely new basis for investment in Russian gas production and a painful transition for Gazprom. (Stern and Rogers 2011.) For Ukraine, it would throw into question the suitability of the ten-year import contracts signed in 2009, since these use an oil-linked formula designed to reflect European conditions.

(ii) *Progress towards gas market liberalisation in the former Soviet Union, and the continuing movement of sales prices upwards, towards levels reflecting those paid in Europe*. The price increases in Russia, Ukraine, and other CIS countries will eventually reach a point at which the premium on export sales to Europe will be significantly eroded and, over the long term, this will change the economic imperatives that drive Russian gas policy.

10. Conclusions

The context for the Russo-Ukrainian 'gas wars' was formed by the mutual dependencies inherited from the Soviet period. The oil boom of the early 2000s, high oil prices, and the resulting changes in Russian economic policy, all played a part. In 2009, high oil prices (and consequently high European gas prices) combined with a recession that impacted Ukraine even more seriously than Russia. Political factors exacerbated these conflicts but were not a primary cause.

The unprecedented supply interruption of January 2009, unleashed by this clash of economic interests, exposed the limitations of international governance mechanisms. The Energy Charter Treaty, designed to stop threats of this kind to energy security, was unable to do so. In the background lay not only the failure of Russo-European diplomacy, but also different approaches within Europe to Russian gas imports. The big energy companies, Gazprom's countractual counterparties, saw the issue

of Ukrainian transit in business terms and looked to Gazprom to resolve it. The EC and many European politicians saw the dispute in terms of the perceived unreliability of Russia as an energy supplier and the desirability of diversifying away from it.

Since the dispute, little progress has been made towards diversifying gas supply from Russia, but the Nord Stream pipeline, essentially a transit diversification project away from Ukraine and Belarus, is being completed with support from the Russian and German governments. This will reduce Ukraine's bargaining power in its disputes with Russia, mitigate the effect of supply interruptions arising from disputes between Russia and Belarus or Ukraine and make such disputes less likely in future.

Bibliography

Balmaceda, Margarita, 2006. *Energy Dependency, Politics and Corruption in the Former Soviet Union: Russia's Power, Oligarchs' Profits and Ukraine's Missing Energy Policy, 1995–2006* (London, Routledge).

Belyi, Andrei, Nappert, Sophie, and Pogoretsky, Vitaly, 2011. "Modernizing the Energy Charter Process? The Energy Charter Conference Road Map and the Russian Draft Convention on Energy Security", *Journal for Energy and Natural Resource Law*, 29(3), August 2011, pp. 383–99.

Energy Charter Secretariat, 2011. *Road Map for the Modernisation of the Energy Charter Process*, at http://www.encharter.org/fileadmin/user_upload/document/Road_Map_ENG.pdf, accessed on November 2011.

European Commission, 2009. *Commission Staff Working Document: The January 2009 Gas Supply Disruption to the EU: An assessment* (SEC (2009) 977 final).

Gas Matters, 2008a. "One Step Forward, Two Steps Back for Timoshenko", March 2008, p. 1.

Gas Matters, 2008b. "Winners and Losers in the March 2008 Russo-Ukrainian 'gas war' ", April 2008, p. 14.

Government of Ukraine, 2006. *Energy Strategy of Ukraine for the Period until 2030* (Kiev).

IEA, 2006. *Ukraine Energy Policy Review 2006* (Paris).

IMF, 2011. *Ukraine, First Review Under the Stand-By Arrangement*, February 2011 (Washington).

Konoplianik, A.A., 2006. "Rossiisko-ukrainskii gazovyi spor: razmyshleniia po itogam Soglasheniia ot 4 ianvaria 2006 g.", *Neft', gaz i pravo*, 3, pp. 43–49 and 4, pp. 37–47.

Krasnov, Gregory V. and Brada, Josef C., 1997. "Implicit Subsidies in Russian-Ukrainian Energy Trade", *Europe-Asia Studies*, 49, p. 5.

Mitrova, Tatiana, Pirani, Simon, and Stern, Jonathan, 2009. "Gas Trade and Transit", in Simon Pirani (ed.), *Russian and CIS Gas Markets and Their Impact on Europe* (Oxford, OUP).

Overland, Indra and Kutschera, Hilde, 2011. "Pricing Pain: Social Discontent and Political Willpower in Russia's Gas Sector", *Europe-Asia Studies*, 63, p. 2.
Paniushkin, Valerii and Zygar', Mikhail, 2008. *Gazprom: Novoe russkoe oruzhie* (Moscow, Zakharov).
Pirani, Simon, 2007. *Ukraine's Gas Sector* (Oxford, OIES).
Pirani, Simon, 2009. *The Impact of the Economic Crisis on the CIS Gas Sector* (Oxford, OIES).
Pirani, Simon, Stern, Jonathan, and Yafimava, Katja, 2009. *The Russo-Ukrainian Gas Dispute of January 2009: A Comprehensive Assessment* (Oxford, OIES).
Pirani, Simon, Stern, Jonathan, and Yafimava, Katja, 2010. *The April 2010 Russo-Ukrainian Gas Agreement and its Implications for Europe* (Oxford, OIES).
Stern, Jonathan, 2006. *The Russian-Ukrainian Gas Crisis of 2006* (Oxford, OIES).
Stern, Jonathan and Rogers, Howard, 2011. *The Transition to Hub-Based Gas Pricing in Continental Europe* (Oxford, OIES).
Ukrainska Pravda, 2006. "Tekst soglasheniia mezhdu 'Naftogazom' i 'Gazpromom' ", 5 January, at www2.pravda.com.ua/ru/news/2006/1/5/36448.htm.
Ukrainska Pravda, 2009a. "Gazovoe soglashenie Timoshenko-Putina", 22 January, at http://www.pravda.com.ua/rus/articles/4b1ab16443461/.
Ukrainska Pravda, 2009b. "Kontrakt o tranzite rossiiskogo gaza plius dop-soglashenie", 22 January, at http://www.pravda.com.ua/ru/news/2009/1/22/87178.htm., last accessed May 2011.
Walde, Thomas (ed.), 1996. *The Energy Charter Treaty: An East-west Gateway for Investment and Trade* (London, Kluwer Law International).
Westphal, Kirsten, 2009. *Russian Gas, Ukrainian Pipelines and European Supply Security* (SWP Research paper).
Yafimava, Katja, 2011. *The Transit Dimension of EU Energy Security: Russian Gas Transit across Ukraine, Belarus and Moldova* (Oxford, Oxford University Press).

Part III
Contemporary Transformations

9

Energy Policy in Transition: Sustainability with Security

Caroline Kuzemko

1. Introduction

There is a growing debate in academic, political and NGO circles about paradigm change within energy systems. This chapter will deal specifically with those works which have focused on paradigm change within EU and UK energy policy (Helm 2005; Jegen 2009; Mitchell 2008). Many of these analyses suggest that the starting point against which to measure policy change is a generalisable EU energy policy paradigm which has been largely influenced by ideas about liberalisation, deregulation and competition over a period of decades. These ideas are understood to have constrained policy responses to emerging issues such as climate change, a political position which has been referred to as the 'compromise of liberal environmentalism' (Bernstein 2001: 4), as well as re-emerging issues such as energy security (Carter 2001; Mitchell 2008; Scrase et al. 2009).

Somewhat different conclusions regarding actual policy changes have, however, been reached. These range from suggestions that a paradigm shift has already taken place (Helm 2005), via those that understand key elements of the policy process to have been changing (Jegen 2009), to those that conclude that little or no change has occurred (Mitchell 2008). What can be read from such analyses of energy policy paradigms is some similarity in the consideration of the *objectives* to which energy policy is set (Helm 2005: 2; Jegen 2009: 2; Mitchell 2008: 2).[1] Objectives appear to have been re-ordered such that the security and sustainability of energy supplies have now emerged as primary objectives, ahead of the creation of liberal and competitive energy markets (Helm 2005; Jegen 2009; Kuzemko 2011).

Taking these observations as a starting point, this chapter will consider how and why objectives have changed with specific reference to UK energy policy and associated governance practices. It will be argued here that it is partly these changing objectives that have been driving other alterations in UK political practice. This chapter will further suggest that through these processes of change an alternative governance norm is starting to emerge, referred to here as the 'climate-energy nexus'. This reflects the combination of climate and energy objectives for energy policy, the political practice of setting climate solutions to achieve energy security goals and the institutionalisation of the idea that energy and climate policy should be intertwined in political practice.

The UK has been chosen as the primary focus for this chapter not in that it typifies European or EU energy governance structures but in that it has so often been highlighted, for example, by the International Energy Agency (IEA) as a 'model' for other countries aspiring to privatise and liberalise (IEA 2006: 9). As such it could be argued that although not many countries had privatised and deregulated to the extent that the UK had, many within Europe, including the EU, had been attempting to move in more liberalised and competitive *direction* (EC 2011b: 14; Jegen 2009: 1; Lesage et al. 2010: 6; Thomas 2006: 583). The UK has, in addition, been one of the most vocal advocates of energy marketisation on an international basis, particularly within the EU and Russia, and considers itself to have been influential within recent EU liberalisation processes (Davies 1996; DTI 1998; FCO et al. 2004; Helm 2003).

This chapter will first lay out what is meant here, in theoretical terms, by change with reference to the conceptual work of new institutionalists on ideas and paradigms (Blyth 2002; Hall 1993; Hay 2001). Paradigm change can refer to a range of changes in policy, but this first section will highlight the emphasis that has been placed on the role that shifting ideas about the goals, or objectives, to which policy should be set can play within processes of change. The next section will consider, in detail, how and why the objectives of energy policy came to change around the mid-2000s emphasising the ways in which these changes were both constrained and facilitated. This will be followed by an analysis of how changing objectives impacted upon other's energy policy processes over this period. All of the sections will refer to policy documents as well as to selective interviews with civil servants and policy advisors involved in energy policy making. The conclusion will draw out some wider implications for energy policy in Europe and Russia, as well as inter-relationships between emerging UK and EU energy policy practices.

2. Changing objectives and policy paradigm shift

Assessing the energy paradigm shift literature is made more complex due to the degree of difference in theoretical lenses adopted, in normative positions taken, and differences in geographic areas of coverage. What is also important to consider, however, is what type of paradigm, or embedded way of doing things, is being considered. A lot of recent analyses on energy policy and change have focused on the need for radical change to the modern industrial paradigm which has been based on profligate fossil fuel usage and growth (Carter 2001; Klare 2008; Newell and Paterson 2010). Others, however, have considered paradigms with reference to the way in which energy is governed, and the ways in which this has restricted change (Kern 2009; Mitchell 2008), or how it has been subject to change (Helm 2005; Jegen 2009).

Another difficulty, however, can be found in the lack of concise or consistent definition offered of what is meant by paradigm change and how and why it might occur. Although reference has been made to the role of ideas in structuring policy paradigms, often with brief reference to Thomas Kuhn and his seminal work on scientific paradigms (Kuhn 1962), no clear definition of paradigm change has been presented in this literature – neither how to measure it, how it takes place or how it unfolds (Helm 2005; Jegen 2009).

To understand a bit more about policy paradigms, however, we can turn to the work of Peter Hall to whom both terms policy paradigm and policy paradigm shift are often accredited (Blyth 2002; Hall 1993; Hay 2001; Oliver and Pemberton 2004). This chapter, dealing as it does with change, will explore neither Hall's definition of a policy paradigm in any great detail, nor the many later analyses which have advanced and enriched this notion. It is probably wise, however, to offer up a brief definition of a policy paradigm both as a starting point against which to measure change and to explain how paradigms have characteristics which resist and constrain change.

Hall's work is situated within a growing literature which understands policy both as socially constructed and as influenced and structured by sets of ideas (Berman 1998; Blyth 2002; Campbell 1998; Hay 2001; Oliver and Pemberton 2004). Hall identified a policy paradigm as a framework of ideas which influences, and even specifies, the way in which policy is formulated in a given policy area, partly because the framework colours even how problems are perceived (Hall 1993: 279). The framework, or policy paradigm, can in addition influence decisions about the appropriate goals of policy, as well as which institutions and

instruments are considered to be most acceptable in attaining these goals. Policy paradigms can become so embedded over time that they can emerge as '... unamenable to scrutiny ...', '... taken for granted ...' by policy makers and highly self-referential (Hall 1993: 279). As such they can be described as representing the policy orthodoxy of any given moment in time and within any given geographic space.[2]

This suggests that ideas and institutions are important variables in understanding both policy and the ways in which policy decisions have been reached. Such analyses of policy making have tended to focus on three levels of policy, the goals or objectives, the instruments, and settings of policy (Hall 1993; Kern 2009). This chapter will also suggest that it is necessary to consider sub-state institutions, such as Departments of State, in order to understand processes of policy making and related outputs. In addition, although Hall's original analysis focused on policymakers, as the key decision makers in any given process of policy making, these set frameworks of ideas extend beyond government departments to politicians, third party advisors, that is think tanks and academics, and non-governmental organisations (NGOs). It has further been argued that the dominant interpretive framework influences who, or which organisations have credible voices within policy-making processes, and is reinforced through education, hiring and training practices (Adler and Haas 1992; Kern 2009; Mahoney and Thelen 2010).

If we move back to consider the way in which energy policy has emerged over the past few decades it would be to observe that the framework of ideas most influential in the OECD, since the early 1980s, has been based within 'neoliberal economics' (CEPMLP 2006; Jegen 2009; McGowan 2008; Mitchell 2008; Scrase et al. 2009).[3] Energy policy is increasingly being designed in order to create and facilitate competitive energy markets (CEPMLP 2006; EC 2011b; Helm 2005; Jegen 2009; Oliveira and McKerron 1992). These were perceived as capable of delivering energy security, defined broadly within OECD countries as secure and reliable energy at affordable prices (G8 2006). As such liberal, competitive energy markets became the primary objective of energy policy, with the inference that this would in turn deliver on security of supply (Borenstein and Bushnell 2000; DTI 2003, 2007; PIU 2002).

Despite these path-dependent characteristics of policy paradigms, profound changes have in the past taken place, as suggested by a range of new institutionalists in consideration of both broad macroeconomic and more specific policy areas (Blyth 2002; Greener 2001; Hall 1993; Hay 2001; Larsen and Andersen 2009; Oliver and Pemberton 2004). Profound structural change, or in Hall's terms 'paradigm shift', can be considered to have taken place in the instance that the goals,

instruments and settings of policy all change. These changes are likely to be accompanied by '... radical changes in the overarching terms of policy discourse...' allowing for alternative perspectives to be heard (Hall 1993: 279). This might happen at a time of perceived crisis or of national elections, both of which can imply conditions under which the ability to influence political decision making can move to new groups; it also implies changes in the dominant framework of ideas (Blyth 2002; Hall 1993; Hay 2001; Oliver and Pemberton 2004).

On Hall's definition of paradigm change, however, it is essential that the goals or objectives to which policy is set change, if just instruments or settings of policy shift then paradigm change cannot be claimed. What is important to consider is not just the way in which objectives change but also changes in the hierarchy of goals (Hall 1993: 279). This reflects some early IPE analysis which considered the important aspects of political processes to be the 'objectives' and 'organisation' of policy (Strange 1988: 16).

As mentioned above, within the energy policy paradigm change literature, the only aspects of energy governance considered to have changed thus far are the objectives of the energy policy (Helm 2005; Jegen 2009; Mitchell 2008). EU and UK energy policies appear to have shifted away recently from a primary focus on achieving liberalised and competitive markets to one of securing low carbon transition, whilst at the same time establishing and maintaining energy security. As such, not only are there new and specific climate objectives for energy policy to reach, but the hierarchy of objectives has shifted such that achieving energy security is now on par with, or even ahead of, achieving liberalised and competitive markets.

It is worth noting that Helm's observations about shifts in the OECD energy policy paradigm is largely based on his observation that the objectives of energy policy have changed, not the instruments or settings (Helm 2005). This infers that Helm, like Hall, considers the objectives of policy to be more important than other aspects of energy governance, such as the instruments used. What is less clearly explained in these texts is why the measurement of paradigm change is so dependent on changes in objectives, something this paper will attempt to address.

3. Changing UK energy policy objectives

UK and EU energy governance has shown many signs of change over the course of the 2000s, although it could be argued that the pace of change was significantly increased in the mid-2000s, particularly around

the time of the first Russia-Ukraine gas transit dispute early in 2006 (Kuzemko 2010; Lesage et al. 2010). The early 2000s witnessed a rise in the profile of climate change arguments amongst political elites, whilst the mid-to-late 2000s saw energy security move rapidly up domestic and international political agendas (G8 2006; Mitchell 2008; Offerdahl 2007). These rapidly altering politico-economic contexts had serious implications for processes of energy governance.

3.1 Historical UK energy governance and objectives

The establishment of the UK pro-market energy paradigm took place within a broader macroeconomic policy shift. This shift was based on a framework of ideas, sometimes referred to as the 'New Conservatism', informed in part by the work of Friedrich von Hayek and Milton Friedman (Graham 1997; Helm 2003). In 1982 Nigel Lawson, as Energy Minister, clearly enunciated a market-oriented vision of the energy sector, which specifically suggested a downgrading of state responsibility and involvement. Energy was understood by Lawson, and others involved in energy policy reforms, more as a replaceable commodity which should be left to competitive markets to supply (Eden et al. 1981; Lawson 1989).

In terms of objectives, energy policy was to be set with secure and affordable supplies in mind, but this was to be achieved within the context of economic efficiency and lower levels of fiscal spending (Lawson 1989; Littlechild et al. 1982). It was assumed that freely trading energy markets were best placed to provide secure supplies of energy especially if this were to occur on an international basis (Mitchell et al. 2001). Competition between energy providers was expected to perform a number of other functions related to economic efficiency and keeping the cost of energy down (Henney 1994; Lawson 1989; Littlechild et al. 1982). During the years following Lawson's appointment as Secretary of State for Energy, the state-owned and state-run energy sector entered, therefore, into two decades of restructuring designed to pass responsibility to the markets and to provide for competition.[4]

By 1992, it was decided that a separate department of government was no longer required for energy, and the Department of Energy was therefore disbanded (Blackhurst 2004). The responsibility for energy policy was passed to a division within the Department for Trade and Industry (DTI) and, in the absence of a Secretary of State for Energy, there was no longer any direct Cabinet-level representation of energy governance matters. Energy was thereby demoted within the political hierarchy of

the UK. What is also important about the new governance institutions is the way in which their mandates impacted upon the new hierarchy of objectives. The mandate of the DTI was to '... (d)eliver free and fair markets, with greater competition, for businesses, consumers and employees' (BERR 2008: 15). As such energy policy needed to be primarily designed with these characteristics in mind. The electricity and gas sector regulators, which were later merged to form Ofgem, were independent bodies designed to '... ensure that the market operates in the energy sector with a minimum of distortion and that energy is produced and consumed efficiently' (Lawson 1989: 23). The regulators were, as with the DTI, mandated to regulate for competition (Mitchell 2008).

In fact, competition was considered to be all-important in the provision of energy security, as this excerpt from a 2001 policy document suggests:

> (c)ompetition itself brings with it benefits for consumers, for companies and for security of supply. Competition also plays a vital part ... to indicate when and where new investment should take place and encouraging a wide range of suppliers and sources of energy.
>
> (DTI 2001: 1)

Competition was also expected to play a key role in the development of the renewable energy sector. The same report goes on to claim that competition would drive environmental innovation in private companies as they strive to respond to consumers who will become more environmentally aware (DTI 2001: 5).

As mentioned in the introduction, this chapter takes the UK to be an exemplar of the type of energy governance changes that had started to occur more widely across the OECD and other parts of the world, including Russia, over the course of the late 1980s and 1990s. The UK was actively involved over this period of time in championing 'good governance' in energy internationally (DTI 1998; FCO et al. 2004; Helm 2003; Interview 15; PIU 2002). As such, it can be considered to have been one of the loudest voices, along with organisations such as the International Monetary Fund (IMF) and the World Bank (WB) in encouraging energy privatisation and liberalisation over the past few decades (Oliveira and McKerron 1992; Thomas 2006).

UK energy governance systems had rarely, however, been replicated. Despite emerging EU intent to standardise energy policy across Europe, quite large policy differences remained over time, with many countries seeking to protect the position of large national champions (Lesage

et al. 2010: 94; cf. Jegen 2009). But as a generalisation it can be said that restructuring had, during the 1990s and 2000s, taken EU, and some emerging market, energy policy frameworks in a more neoliberal direction. Although the background objective remained one of energy security, during the process of restructuring, EU policy was increasingly designed in order to achieve the goals of 'freely trading' energy markets via privatisation, liberalisation and competition (Borenstein and Bushnell 2000; EC 2006; Helm 2005; Jegen 2009; Lesage et al. 2010).

3.2 The 'Energy Security' challenge

During the mid-2000s, a major challenge for UK energy governance emerged when fears about security of supply erupted once more. Although in the early 2000s various government documents had acknowledged changing demand patterns for fossil fuels, in the form of Chinese and Indian growth, they had concluded that supplies of fossil fuels were ample to meet world demand (DTI 2003: 79; PIU 2002: 53). However, by 2007, in the wake of growing state involvement in the Russian energy sector and of the Russia-Ukraine gas transit dispute, perceptions in the UK, and across Europe, had started to shift significantly (Barton et al. 2004; Jegen 2009). Fears about growing EU gas imports from Russia fuelled a far greater degree of political interest and activity in the energy sector (EC 2006; HoC 2007a; Scrase et al. 2009). The timing could not have been worse given that the UK was in the process of moving from a net-exporter to a net-importer of both oil and gas over this time period (Blair in DTI 2006a; Bird 2007). As such UK and EU interpretations of Russian energy policy, as well as actual Russian policy changes, can be seen as significant for the politics of energy.

Fears of an energy supply crisis were further fuelled by negative perceptions of Hugo Chavez's dealings in the Venezuelan extractive industry, renewed unrest in the Middle East and terrorist threats to energy transport infrastructure (Baghat 2006; Yergin 2006). Thus even as global hydrocarbon demand was understood to be growing supplies, increasingly coming from outside the OECD, start to be perceived as less reliable or stable (HoC 2007a). One of the interesting conclusions from this debate was that the UK, having been so focused previously on positive economic inter-dependence, started to argue for reducing future levels of dependence on unstable, foreign suppliers through a renewed emphasis on home-grown energy production (Bird 2007; HoC 2007a; Wicks 2009).

These debates were reflected across Europe. Although the EC Green Paper of 2001 (EC 2001) had emphasised the need to maintain energy security, to a degree unseen in the UK in 2001, by 2006 discussion of energy insecurity had reached fever pitch (Jegen 2009). In the UK a host of Government reports on, and consultations about, energy followed in response to the security of supply crisis (DTI 2005a, 2006a, b, 2007; FCO et al. 2004; HoC 2007a; JESS 2006). At this time, energy security was prioritised such that it re-emerged at the top of UK and EU energy policy objectives (EC 2006; G8 2006; Jegen 2009; Offerdahl 2007).

3.3 Formalisation of climate objectives

Energy policy objectives were to change again in 2007, and these changes, in combination with the re-prioritisation of energy security objectives, would ultimately have deeper implications for the way in which UK energy was governed, its institutions and its guiding ideas. Despite being advised by the energy division of the DTI not to, Prime Minister Blair signed up to the EU 20:20:20 commitment (Adam 2007; Interview 13). As such the UK, alongside other EU countries, became more formally committed to reduce carbon dioxide emissions by 20% and, importantly, produce 20% of total energy consumed from renewables both by the year 2020.

Although UK and EU representatives were considered to have been instrumental in international climate negotiations, particularly in securing the Kyoto Protocol agreement (Carter 2001: 120), such target-setting successes stood in some contrast to actual changes in UK domestic policy aimed at fulfilling these targets (Giddens 2009; Mitchell 2008; Ragwitz et al. 2005). Given that, at the time, the UK produced only 4% of its total energy demand from renewable sources, it was considered by some civil servants to be a mighty task (Interviews 13 and 15). As it was, when the actual EU commitments were set in 2008, the UK renewables target was dropped to 15% (DECC 2009b).

The significance of these targets for energy policy was, however, great especially within the context of newly emerging energy security objectives. Renewable energy remained still under-invested across different sectors, but specifically in transport, where only 2.6% of energy came from renewable sources, and in heating, where the UK was still generating very low levels from renewables (DECC 2009b: 8). In order to meet the renewable target of 15% of overall energy consumed, and because the transport figures were so low, the UK would now have to engineer

a situation within which electricity generation from renewables would reach 30% by 2020 (DECC 2009b: 8). The pressure was now really on energy policy to *deliver* on climate targets.

DTI officials were reportedly, and perhaps understandably, quite shocked about the UK's adoption of a firm and specific renewables target and, according to a newspaper article, they were reluctant to have to meet the target (Macalister 2010). Although there were those in the DTI's energy division who had hoped that there might be some 'wriggle room' it was decided, in regular contact with Her Majesty's Treasury, that the RES target should be met without 'safety valves' or compensation mechanisms (Interview 5). In policy practice terms, therefore, the renewables target became absolute, rather than aspirational. As such, it was becoming increasingly clear that the existing energy policy framework needed to change to meet the combined and growing challenges of climate change and perceptions of energy (in-)security (DTI 2007: introduction).

4. Energy policy impacts

Politicians had, by this stage, become involved again in deliberating energy issues, not least due to the number of White Papers, Reviews, Bills and Acts that started to come before them. This chapter argues that high-profile and specific objectives and targets also have a way of demanding political attention, particularly when publically missed. Having claimed repeatedly that established policy frameworks would deliver on climate and security goals, mounting proof that these objectives were not being met allowed opposition groups to argue that the system required further change (Foxon et al. 2005; Greenpeace 2006; Held 2006; Mitchell 2008; Sauter and Watson 2007).

Political protagonists were able to argue that insufficient investment was being made in UK energy infrastructure, including markedly in the renewable energy sector (Foxon et al. 2005; Sauter and Watson 2007). Furthermore it was looking increasingly likely that the new, specific renewable energy and CO_2 emission reductions targets would be missed (Greenpeace 2006: 3; HoC 2007b: 3; Van der Horst 2005: 706). As such evidence of failure became more widely available, it started to become politically apparent, even within the DTI, that a significant policy re-think would be required (Interview 5). Civil servants responsible for energy policy making were now required to meet difficult renewable energy targets, and this was coming from an established viewpoint that it was not the job of Government to make decisions about

energy sources, that is a belief that Government should be 'fuel blind' (DTI 2003, 2007; Mitchell 2008).

The Climate Change Act of 2008 was one of the first outcomes of the ongoing re-think of energy policy. This Act was held up as being the first of its kind in that it set legally binding carbon dioxide reduction targets up until 2050, of at least 80%. By enshrining more specific targets in law the Act offered policy makers even less room to manoeuvre. What this Act failed to do, however, was put forward much in the way of how these targets might be met, although it was suggested that by setting legally binding targets solutions would have to be found (HoC 2007b: 3).

This Act brought in a further mandatory requirement to report to parliament the progress towards meeting these targets, as had perceptions of energy insecurity prompted a fixed duty to report on energy security matters (DTI 2005). In addition, it set out plans for the creation of another institution, the Climate Change Commission (CCC), whose job it was to advise on, and monitor progress towards, achieving a lower carbon economy (HoC 2007b: 3). As it turned out, the CCC over time became another high-profile critic of Government climate achievements, calling for change to UK energy policy making (CCC 2010). This served to keep energy objectives on the political radar and to highlight policy failures, thereby maintaining pressure to find policy solutions which would deliver.

The clearest sign of institutional overhaul was the formation of the new Department of Energy and Climate Change (DECC). The first Secretary of State for Energy and Climate Change would represent energy directly at the cabinet level once more, and climate issues for the first time. DECC can, furthermore, be seen as the institutionalisation into political practice of the long-standing environmental idea that energy and climate policy should be treated in active political terms as completely interrelated (Carter 2001; Greenpeace 2006; Held 2006; PIU 2002; Scrase et al. 2009). These kinds of ideas had, arguably, been marginalised in UK politics prior to this point, but DECC's webpage, under 'About Us', claims that 'DECC . . . reflects the fact that climate change and energy are inextricably inter-linked . . . ' (DECC 2011).

This new institution immediately set about responding to the challenge implied in the Climate Change Act of starting to move beyond objective and target setting towards finding concrete methods of achieving these objectives. This is one of the clearest examples of objectives driving change. They quickly produced two significant documents, 'The UK Low Carbon Transition Plan' and the 'Renewable Energy Strategy',

both of which recognised the need for further policy change (DECC 2009a and 2009b).

The 'Renewable Energy Strategy' was designed to put the UK into a position where it could deliver on its specific renewables target of 15% by 2020. Specifically, it '. . . put in place mechanisms to provide financial support for renewable electricity and heat worth around £30bn between now and 2020 . . . ' largely via, yet again, amending the Renewables Obligation (RO) but also through the introduction of the first 'feed-in-tariff' aimed at domestic renewable production (DECC 2009b: 8).[5] To oversee and administer all of this, a new 'Office for Renewable Energy Deployment' (ORED) would be established within DECC which would be responsible for ensuring that the UK would deliver on its renewable targets (DECC 2009b: 9). Much of this represented a shift away from previous reliance, as seen in 2003 and 2007, on market mechanisms for achieving energy objectives.

Changes to the instruments of policy were also apparent in the 'Low Carbon Transition Plan' (DECC 2009a). This Plan also marked an increase in the level of state financial support being offered to facilitate the production of renewable technologies, including research and development, and to improve energy efficiency. DECC announced their intention to directly fund four new demonstrations of capturing and storing emissions from coal power stations, to channel about £3.2 billion to help households become more energy efficient, to roll out smart meters in every home by the end of 2020 and to provide further state investment in offshore wind (DECC 2009a: 4).

Such new ideas about the relative roles of the state and market in energy policy had been encapsulated in an early speech given by the first Secretary of State for Energy and Climate Change, Ed Miliband. He suggested that dynamic markets on their own were no longer enough for a successful energy policy, particularly in that the UK could no longer assume that private incentives add up to the public goods of decarbonisation and energy security (Miliband 2008: 4). Thus, a new role for government was suggested in that it provides

> (s)trategic policy that takes action where there are market failures and provides the right incentives for the public good.
>
> (Miliband 2008: 5)

By 2011, DECC's mandate had changed such that competitive energy markets were no longer directly addressed as an objective of energy policy. Importantly, new announcements were also made about amendments to Ofgem's mandate. Although competition was still

recognised as a valuable mechanism for protecting consumer interests, Ofgem's mandate was clarified such that it should recognise going forward that there are other means which can be utilised to protect these interests (DECC 2009a: 4). This demotion of competition marks a stark contrast with previous statements on its multifaceted role, and it also contrasts with the latest EC documents on energy policy which focuses on the triple objectives of security, sustainability and competition (EC 2011a, b).

What is also clear, not just from the formation of DECC, but from the way policies were amended in pursuit of objectives was that methods which had previously been associated with achieving climate goals also became the solutions for achieving energy security goals. This idea had been put forward for some time by climate groups and academics and had made a strong impact in the Wicks report of 2009 (Wicks 2009). This report made regular reference to the need for 'home grown', renewable energy as a cure for energy insecurity as well as climate change (Wicks 2009). This line of thinking about climate solutions was reflected in the proposition that energy insecurity, in the form of reliance on unreliable foreign sources, would be countered with a 'turn' to renewables (DECC 2009b: 10). The degree to which combined objectives relied on increased production of domestic sources of renewable energy, and on reducing demand via energy efficiency measures, made energy and climate policy even more deeply integrated.

These observations about objectives and policy change have interesting implications for Hall's notion, touched on above, that changing objectives are of the highest degree of importance in the process of policy paradigm change. This has been a different process of change than that observed by Helm and others in the 1980s and 1990s in that it they had suggested that it was new ideas about macroeconomic governance that drove changes in energy policy (Helm 2003, 2005; Jegen 2009). In this process, however, objectives have changed and have in some ways forced change, and in other ways represented a new energy-climate nexus in policy terms. What this analysis does support is Hall's implied suggestion that objectives should be considered important within the examination and measurement of profound processes of change or paradigm shifts.

5. Conclusions

This brings us back to the work, referenced above, on paradigm shift in OECD and/or EU energy policy which has suggested that the objectives of energy policy have changed in terms of both firm climate targets and

the relative re-ordering of the importance of achieving energy security. These observations tie in well with findings from this analysis of changing UK energy policy in the late 2000s, although there are a couple of important differences in terms of objectives and priorities. There is a suggestion implicit in this analysis that the formalisation of UK climate objectives came about very much within the context of changing EU climate targets, and, as such, EU commitments seem to have been a strong driver in changes to UK energy policy objectives. A further point of differentiation is that EU policy objectives are now worded in such a way that competition appears to be on equal par with climate and energy security goals (EC 2011b), whereas in the UK no more mention is made of 'competition' as an objective for energy policy (DECC 2011).

This chapter has proposed that new UK energy policy goals have interacted with other governance institutions. In particular, it has suggested that it is in pursuit of solutions to address the complex combination of climate and security objectives that other UK governance institutions have changed. These institutions are understood here to have changed in three principle ways. The first is the addition of further state capacity in the form of a new Department and other institutions of government. Such growth in formal political institutions dedicated to energy has also recently been evident in the EU with the recent creation of the Directorate-General for Energy and also in the response to the promotion of security and climate objectives. Some of the EU's narrative takes the call for change further than that evident in UK policy documents. The 2007 Energy Package went so far as to demand a new 'post-industrial revolution' in order to limit climate change (EC 2007: 2).

The second way in which changing objectives have influenced energy governance is evident in the range of instruments now deemed appropriate. There has been a greater degree of state involvement in planning the energy mix going forward in formulating energy foreign policy and in funding and facilitating renewable energy. Again, this kind of response is also evident in the EU given that security concerns prompted greater interest in direct EU political and financial involvement in Nabucco but also in the investment in EU renewables (Youngs 2009). The response to security and climate concerns has been a refocus on domestic, or in the case of the EU, regional production and integration capabilities over the notion of global economic inter-dependence in energy trade.

Lastly, in seeking to figure out how to meet complex sets of objectives a new 'climate-energy nexus' has emerged. This reflects a high degree of acceptance that energy and climate should be interrelated in policy

making terms and the casting of climate solutions for energy security as well as climate problems. Again, such policy responses are apparent in EU energy documents which emphasise the interrelationship between these formally more discrete policy areas (EC 2011a). Of all the changes that have taken place in energy policy making practices this is, perhaps, the least discussed.

One of the primary questions arising from the changes within UK energy policy making is whether or not it will prove of wider significance that the UK is becoming less neoliberal in energy policy practice. This question must be considered within the context of earlier observations about the UK having been held up as an example for others to follow, and of the UK's very active role in promoting energy market liberalisation in the EU and Russia. The UK has largely been considered to have been a credible, and therefore influential, voice in the operationalisation of neoliberal ideas into energy policy practice. Growing UK state involvement in energy may well serve to make any continued narrative and overt advocacy of further liberalisation difficult.

The ongoing changes in UK energy institutions and policy making may indeed impact upon the notion of pro-market energy as orthodoxy, or as an accepted logic or norm. Given the degree to which the UK and the EU have based themselves and their external relations on successful norm diffusion (Keating 2012: this book), it is likely to have specific implications for relations with producer states such as Russia.

As one senior member of Ofgem recently put it, having been perceived as a leader within the EU in terms of energy and liberal reforms, the UK now finds itself increasingly 'on the back foot' (Interview 16). This is not just as a result of energy policy changes but also as a result of the gap between the UK's rhetoric of leadership in climate policy and actual results achieved. If energy policy is going to continue to be about achieving renewable energy and carbon emission reduction targets then the UK, compared to other countries in Europe, will find it harder to credibly claim energy leadership.

Notes

1. Emphasis author's own.
2. According to Hall, policy paradigms are not as strong or influential in all policy areas, as they have been in macroeconomic policymaking, but they are relatively strong in areas which involve highly technical issues as well as a body of specialist knowledge, such as energy (Hall 1993: 291).
3. The wider context was one within which neoliberal economic ideas had come to dominate policymaking more broadly, particularly within the area

of macroeconomic policymaking. Many argue that this framework, and the acceptance of a more limited role for the state, had come to represent 'conventional wisdom' (CEPMLP 2006; Mitchell et al. 2001).

4. This is not to suggest that these political processes took place without opposition; there had been quite considerable opposition in the 1980s, not least from the National Union of Mineworkers, but by the 1990s opposition had faded and a pro-market energy policy system was in process.
5. This was, by no means a full, German-style feed-in-tariff aimed at large-scale renewable generation but represented, perhaps, a first step for the UK.

Bibliography

Adam, David (2007) 'Britain Tries to Block European Targets for Renewable Energy', *The Guardian*, Tuesday, 13 February.

Adler, Emmanuel and Peter M. Haas (1992) 'Conclusion: Epistemic Communities, World Order, and the Creation of a Reflective Research Program', *International Organization*, 46, 1, pp. 367–90.

Baghat, Gawdat (2006) 'Europe's Energy Security: Challenges and Opportunities', *International Affairs*, 82, 5, pp. 961–75.

Barton, Barry, Catherine Redgwell, Anita Ronne and Donald N. Zilman (2004) *Energy Security: Managing Risk in a Dynamic Legal and Regulatory Environment*. Oxford: Oxford Univerity Press.

Berman, Sheri (1998) *Social Democratic Moment: Ideas and Politics in the Making of Interwar Europe*. Cambridge: Harvard University Press.

Bernstein, Steven (2001) *The Compromise of Liberal Environmentalism*. New York: Columbia University Press.

BERR (Department for Business Enterprise & Regulatory Reform) (2008) *BERR Autumn Performance Report 2008*.

Bird, Jenny (2007) *Energy Security in the UK*. London: Institute for Public Policy Research.

Blackhurst, Rob (2004) 'Can We Wait for Renewables?', *Foreign Policy Centre*.

Blyth, Mark (2002) *Great Transformations: Economic Ideas and Institutional Change in the Twentieth Century*. New York: Cambridge University Press.

Borenstein, Severin and James Bushnell (2000) 'Electricity Restructuring: Deregulation or Reregulation?', *Regulation*, 23, 2, pp. 46–52.

Campbell, John (1998) 'Institutional Analysis and the Role of Ideas in Political Economy', *Theory and Society*, 27, 3, pp. 377–409.

Carter, Neil (2001) *The Politics of the Environment: Ideas, Activism, Policy*. Cambridge: Cambridge University Press.

CCC (Committee on Climate Change) (2010) The Fourth Carbon Budget: Reducing Emissions Through 2020. London: CCC.

CEPMLP (Centre for Energy, Petroleum and Mineral Law and Policy) (2006) *Security of International Oil and Gas*: *Challenges and Research Priorities: A Project for the Economic and Social Research Council*. Available at: http://www.dundee.ac.uk/cepmlp/Research/ESRC%20CEPMLP%20FinalReport.pdf, last accessed on July 2011.

Davies, P.A. (1996) 'The UK Energy Experience: a Model or a Warning?' in G. Mackerron and P. Pearson (eds.) *The UK Energy Experience: A Model or a Warning?* London: Imperial Press.

DECC (2009a) 'The Low Carbon Transition Plan: National Strategy for Climate and Energy', *Department of Energy and Climate Change White Paper*. London: TSO.
DECC (2009b) 'The UK Renewable Energy Strategy', *Her Majesty's Government*. London: TSO.
DECC (2011) DECC website: http://www.decc.gov.uk/en/content/cms/about/about.aspx, last accessed on July 2011.
DECC (2011a) Electricity Market Reform: Consultation Document, December 2010, *The Department of Energy and Climate Change*. London.
DTI (1998) 'Our Competitive Future: Building the Knowledge Driven Economy', *National Archives*.
DTI (2001) Social, Environmental and Security of Supply Policies in a Competitive Energy Market, The Department of Trade & Industry. London.
DTI (2003) *Energy White Paper: Our Energy Future – Creating a Low Carbon Economy*. London: TSO.
DTI (2005) Secretary of State's First Report to Parliament on Security of Gas and Electricity Supply in Great Britain, July 2005. London, The Stationary Office.
DTI (2006a) *The Energy Challenge Energy Review Report 2006*, The Department for Trade and Industry.
DTI (2006b) Secretary of State's Second Report to Parliament on Security of Gas and Electricity Supply in Great Britain, July 2006. London: The Stationary Office.
DTI (2007) *Meeting the Energy Challenge: An Energy White Paper*. London: TSO.
Eden, R., M. Posner, R. Bending, E. Crouch and J. Stanislaw (1981) *Energy Economics*. Cambridge: Cambridge University Press.
European Commission (EC) (2001) *Green Paper: Towards a European Strategy for the Security of Energy Supply*. Brussels: European Commission.
European Commission (EC) (2006) 'A European Strategy for Sustainable, Competitive and Secure Energy', *European Commission Green Paper* of 8 March 2006. Available at: http://ec.europa.eu/energy/strategies/2006/2006_03_green_paper_energy_en.htm, last accessed on July 2011.
European Commission (EC) (2007) 'An Energy Policy for Europe', a Communication from the Commission to the European Council and the European Parliament. Available at: http://ec.europa.eu/energy/energy_policy/doc/01_energy_policy_for_europe_en.pdf, last accessed on July 2011.
European Commission (EC) (2011a) *Background on Energy in Europe: Information Prepared for the European Council, 4 February 2011*. Available at: http://ec.europa.eu/europe2020/pdf/energy_background_en.pdf, last accessed on July 2011.
European Commission (EC) (2011b) Energy 2020: A Strategy for Competitive, Sustainable and Secure Energy, a brochure of the *Directorate-General for Energy*. Available at: http://ec.europa.eu/energy/publications/doc/2011_energy2020_en.pdf, last accessed on July 2011.
FCO (Foreign and Commonwealth Office) et al. (2004) *UK International Priorities: The Energy Strategy*, The Foreign and Commonwealth Office. Available at: www.sovereignty.org.uk/siteinfo/.../FCOStrategyFullFinal.pdf, last accessed on July 2011.
Foxon, T. et al. (2005) 'Transforming Policy Processes to Promote Sustainable Innovation: Some Guiding Principles', *A report for policymakers*. London: Imperial College.

Gault, John (2004) 'EU Energy Security and the Periphery' in Roland Danreuther (ed.) *European Union Foreign and Security Policy: Towards a Neighbourhood Strategy*. London: Routledge.

Giddens, Anthony (2009) *The Politics of Climate Change*. Cambridge: Polity Press.

Goldthau, Andreas and Jan Martin Witte (2009) 'Back to the Future or Forward to the Past? Strengthening Markets and Rules for Effective Global Energy Governance', *International Affairs*, 85, 2, pp. 373–90.

Graham, Andrew (1997) 'The UK 1979–1995' in Colin Crouch and Wolfgang Streeck (eds.) *Political Economy of Modern Capitalism: Mapping Convergence and Diversity*. London: Sage.

Greener, Ian (2001) 'Social Learning and Macroeconomic Policy in Britain', *Journal of Public Policy*, 21, 2, pp. 133–52.

Greenpeace (2006) Oil and Peace Don't Mix. London, Greenpeace. Available at: http://www.greenpeace.org.uk/media/reports/oil-and-peace-dont-mix, last accessed on July 2011.

G8 (2006) Global Energy Security, a Definition used for the *G8 Summit 2006, St Petersburg*. Available at: http://en.g8russia.ru/docs/11.html, last accessed on July 2011.

Hall, Peter A. (1993) 'Policy Paradigms, Social Learning and the State: The Case of Economic Policy Making in Britain', *Comparative Politics*, 25, 3, pp. 275–96.

Hay, Colin (2001) 'The "Crisis" of Keynesianism and the Rise of Neoliberalism in Britain: An Ideational Institutionalist Approach' in John L. Campbell and Ove K. Pedersen (eds.) *The Rise of Neoliberalism and Institutional Analysis*. Princeton: Princeton University Press.

Held, David (2006) 'Reframing Global Governance: Apocalypse Soon or Reform!', *New Political Economy*, 11, 2, pp. 157–77.

Helm, Dieter (2003) *Energy, the State and the Market*. Oxford: Oxford University Press.

Helm, Dieter (2005) 'The Assessment: The New Energy Paradigm', *Oxford Review of Economic Policy*, 21, 1, pp. 1–18.

Henney, Alex (1994) 'Energy Markets and Energy Policies after the White Paper', *Energy Policy*, January, pp. 5–13.

House of Commons (HoC) (2007a) *Energy Security: Research Paper 07/42*. London: House of Commons Library.

House of Commons HoC (2007b) 'Beyond Stern: From the Climate Change Programme Review to the Draft Climate Change Bill', the Seventh Report of Session 2006–07 of the *House of Commons Environmental Audit Committee*. London: House of Commons Library.

IEA (International Energy Agency) (2006) *Report on UK Energy*. Available at: http://www.iea.org/Textbase/publications, last accessed on July 2011.

Jegen, Maya (2009) 'Framing Energy Security: The Case of the European Union', Conference Paper for *the ISA Convention 2009*, New York.

JESS (2002) Joint Energy Security of Supply Working Group: First Report, June 2002. Available at: http://webarchive.nationalarchives.gov.uk/+/http://www.berr.gov.uk/energy/reliability/security-supply/jess/reports/index.html, last accessed on July 2011.

JESS (2006) *JESS: Long-term Security of Energy Supply*. Available at: http://www.berr.gov.uk/files/file35989.pdf, last accessed on July 2011.

Keating, Michael (2012) 'Global Best Practice(s) as Transnational Energy Governance' in Caroline Kuzemko, Andrei Belyi, Andreas Goldthau and Michael

Keating (eds.) *Dynamics of Energy Governance in Europe and Russia*. Basingstoke and New York: Palgrave Macmillan.
Kern, F. (2009) The Politics of Governing 'system innovations' towards Sustainable Electricity Systems, *SPRU-Science and Technology Policy Research*. Brighton, University of Sussex, DPhil thesis, p. 254.
Klare, Michael (2008) *Rising Powers, Shrinking Planet: The New Geopolitics of Energy*. New York: Metropolitan Books.
Kuhn, Thomas (1962) *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press.
Kuzemko, Caroline (2010) 'UK Energy Governance Change and the "Russian Bear": 2003–2007', a conference paper for the *7th SGIR pan-European Conference*, Stockholm, September.
Kuzemko, Caroline (2011) 'Energy Governance in Transition: Finding New Direction', a Paper for the *British International Studies Association* Conference, Manchester, April.
Larsen, Christian and Jorgen Andersen (2009) 'How New Economic Ideas Changed the Danish Welfare State: The Case of Neoliberal Ideas and Highly Organized Social Democratic Interests', *Governance: An International Journal of Policy, Administration, and Institutions*, 22, 2, pp. 239–61.
Lawson, Nigel (1989) *Energy Policy: The Text of a Speech Given in 1982*. Oxford: Clarendon Press.
Lesage, Dries, Thijs Van de Graaf and Kirsten Westphal (2010) *Global Energy Governance in a Mutipolar World*. Surrey, England; Burlington, USA: Ashgate.
Littlechild, S.C., K.G.Vaidya; with M. Carey (1982) *Energy Strategies for the UK*. London: Allen and Unwin.
Luft, Gal, Anne Korin and Eshita Gupta (2011) 'Energy Security and Climate Change: A Tenuous Look' in Benjamin J. Sovacool (ed.) *The Routledge Handbook of Energy Security*. Abingdon and New York: Routledge.
Macalister, Terry (2010) 'Britain's Energy Policy goes Back to the Future', Guardian, Wednesday, 3 February.
Mahoney, James and Kathleen Thelen (2010) 'A Theory of Gradual Institutional Change' in James Mahoney and Kathleen Thelen (eds.) *Explaining Institutional Change: Ambiguity, Agency and Power*. Cambridge: Cambridge University Press.
McGowan, Francis (2008) 'Can the European Union's Market Liberalism Ensure Energy Security in a Time of "Economic Nationalism"?', *Journal of Contemporary European Research*, 4, 2, pp. 90–106.
Miliband, Ed (2008) 'The Rise and Fall and Rise Again of a Department of Energy', speech given at Imperial College, London, on 9 December 2008. Available at: *www.decc.gov.uk/.../1_20090408161742_e_@@_milibandspeechimperial 091208.pdf*, last accessed on July 2011.
Mitchell, Catherine (2008) *The Political Economy of Sustainable Energy*. Hampshire, New York: Palgrave Macmillan.
Mitchell, John, Koji Morita, Norman Shelly and Jonathan Stern (2001) *The New Economy of Oil: Impacts on Business, Geopolitics and Society*. London: The Royal Institute of International Affairs.
Myers-Jaffe, Amy (2005) 'The Outlook for Future Oil Supply from the Middle East and Price Implications', speech, Tokyo, 20 July 2005, James Baker III Institute for Public Policy, Rice University.

Newell, Peter and Matthew Paterson (2010) *Climate Capitalism: Global Warming and the Transformation of the Global Economy*. Cambridge: Cambridge University Press.
Offerdahl, Kristine (2007) 'European Energy Security: Oil and Gas Supplies from the Russian Arctic: Powerful Actors and Diverging Interests', Paper for the *International Studies Association 48th Annual Convention*, Chicago.
Oliveira, Adilson and Gordon MacKerron (1992) 'Is the World Bank approach to structural reform supported by experience of electricity privatization in the UK?' *Energy Policy,* February 1992, pp. 153–62.
Oliver, Michael and Hugh Pemberton (2004) 'Learning and Change in 20th-Century British Economic Policy', *Governance: An International Journal of Policy, Administration, and Institutions*, 17, 3, pp. 415–41.
PIU (2002) *The Energy Review*: *Performance and Innovation Unit Report*. London: Cabinet Office.
Ragwitz, Mario, Gustav Resch, Thomas Faber and Claus Huber (2005) 'Monitoring and Evaluation of Policy Instruments to Support Renewable Electricity in EU Member States', *German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety*. Kalrsruhe: Fraunhofer Institute Systems and Innovation Research.
Sauter, R. and J. Watson (2007) 'Strategies for the Deployment of Micro-generation: Implications for Social Acceptance', *Energy Policy*, 35, 5, pp. 2770–79.
Scrase, Ivan, Tao Wang, Gordon MacKerron, Francis McGowan and Steve Sorrell (2009) 'Introduction: Climate Policy is Energy Policy' in Ivan Scrase and Gordon MacKerron (eds.) *Energy for the Future: A New Agenda*. Basingstoke: Palgrave Macmillan.
Strange, Susan (1988) *States and Markets*. London: Pinter.
Thomas, Steve (2006) 'The British Model in Britain: Failing Slowly', *Energy Policy*, 34, pp. 583–600.
Van der Horst, Dan (2005) 'UK Biomass Energy since 1990: The Mismatch between Project Types and Policy Objectives', *Energy Policy*, 33, pp. 705–16.
Wicks, Malcolm (2009) *Energy Security: A National Challenge in a Changing World*. London: Department of Energy and Climate Change.
Yergin, Daniel (2006) 'Ensuring Energy Security', *Foreign Affairs*, 85, 2, pp. 69–83.
Youngs, Richard (2009) *Energy Security: Europe's New Foreign Policy Challenge*. Abingdon, New York: Routledge.

Interviews conducted

Interview 1: Department of Business Enterprise and Regulatory Reform (BERR) 2008.
Interview 2: BERR 2008.
Interview 5: Department of Energy and Climate Change (DECC), November 2010.
Interview 6: Foreign and Colonial Office (FCO), September 2008.
Interview 7: Professor Nodari Simonia, Moscow, 2008.
Interview 8: Wintershall, Moscow, 2008.
Interview 9: Deloitte Moscow, 2008.

Interview 10: Standard Chartered Moscow, 2008.
Interview 11: Director, Cambridge Energy Research Associates, 2007.
Interview 12: Senior consultant, OXERA, 2010.
Interview 13: Member of Policy and Innovation Unit (PIU) 2002 Energy Review team, 2010.
Interview 14: Member of PIU 2002 Energy Review team, 2011.
Interview 15: Ofgem, 2011.
Interview 16: DECC, 2011.
Interview 17: Former FCO analyst, 2011.
Interview 18: Former senior policy advisor to Prime Minister Blair, 2011.

10

Emerging Governance Challenges for Eurasian Gas Markets after the Shale Gas Revolution

Andreas Goldthau

1. Introduction

Gas markets have seen major changes within the last few years. On the demand side, gas consumption has faltered, a consequence of the ongoing financial and economic crisis. On the supply side, soaring unconventional (shale) gas production, mainly in the US, has brought new gas supplies to international markets.[1] The latter, as a consequence, now tend to be oversupplied. In fact, compared to a situation only five years ago, markets have literally been turned upside-down. A then-prevalent sellers market, giving considerable leverage to gas exporters during the first half of the last decade, has rapidly shifted towards a buyers market again. This fundamental change has major implications for, and the political economy of, Eurasian gas. Notably, prevalent take off arrangements and the common oil price peg are currently being reconsidered, if not entirely abandoned. Feeling the heat from its West European customers, key suppliers such as Gazprom or Statoil have started to partially use spot prices as reference points; fostered by increasing LNG imports, long-term contracts start giving way to short-term arrangements and spot market transactions; and Russia, the once dominant supplier in Eurasia, is consistently losing its market share on European consumer markets.

Economic activity will eventually recover; shale gas, however, is here to stay. The question of whether this will 'rock the world' (Jaffe 2010), and become more important for energy markets than the double strike of a nuclear accident in Japan, followed political turmoil revolt across the Middle East (Butler 2011), may remain unanswered for some time

to come. What is sure is that while demand will surge again some time within the next few years, natural markets and Eurasian energy relations will certainly not look as they did before shale entered the gas scene. The 'shale gas revolution' is therefore a dynamic process that impacts on a range of energy actors and institutional arrangements, while at the same time transforming regulatory environments and market structures – yet with an uncertain outcome. As a consequence, governance challenges now emerge on a variety of fronts. These challenges notably include new risks, such as increased price fluctuations stemming from more volatile spot markets; emerging possibilities to at least partially cartelize globalizing gas markets; Cobweb cycle-related incentive problems for investment in key producer countries; and a transitional period which may be characterized by growing tensions between contractual parties and will hence require moderation. This chapter argues that this obviously requires a rethink of Eurasian gas market governance structures.

This article adds to existing research on the legal and institutional foundations of Eurasian gas relations. Focusing on changing market dynamics, it aims at filling an emerging gap in that literature. Acknowledging the fact that Eurasian gas market relations are predominantly bilateralized in nature, existing research has by and large focused on arrangements facilitating smooth gas transit; on mechanisms fostering mutual trust among producers, consumers and transit countries; on various platforms and formats of dispute settlement mechanisms; and on the export of EU rules and regulations beyond EU jurisdictions, aimed at 'legally stabilizing' crucial energy corridors. In this context, the Energy Charter Treaty (e.g. Konoplyanik and Wälde 2006), various formats of EU-Russian dialogues (e.g. Aalto 2007), the EU Neighborhood Policy and the EU's (legal) external energy relations (e.g. Lavenex 2004; Prange-Gstöhl 2009; Youngs 2009) have been the major objects of analysis. Yet, as indicated, given the changing nature of the market, governance challenges may now arise on different fronts, calling for investigation. In this context, the chapter conceptualizes governance as a *teleological*, that is a purpose-driven approach to addressing these challenges. The chapter investigates the nature, levels and acting units of institutional arrangements aimed at mitigating emerging risks and facilitating exchange within multi-level and multi-actor based interactions in Eurasia gas.

The chapter first maps the new gas market landscape in Eurasia and briefly introduces the major changes that now require a re-assessment of institutional arrangements in Eurasian gas (Section 2). Next, it re-assesses emerging risks for involved parties (Section 3). Based on

this, it carves out the call on Eurasian gas market governance along the fronts of pricing, supply, consumer market stability and investment (Section 4). Section 5 concludes by arguing that key governance challenges centre on enhancing mutual trust, strengthening time horizons and, ideally, providing for a set of procedural rules allowing for a smooth transition to new market arrangements.

2. A new gas market landscape in Eurasia

In under five years, a number of coinciding trends have fundamentally altered the Eurasian natural gas market. In essence, two factors were causal for a tremendous impact on gas volumes consumed and their prices. First, the global economic recession, triggered by the financial crisis, led to reduced energy consumption, also in gas, as of the last quarter in 2008. Gas demand in Europe alone fell by 5.6 per cent in 2009 compared with 2008 (IEA 2010a; see also Honoré 2011). While growth in China and other emerging Asian economies picked up again remarkably fast, consumption there had also gone down temporarily. While this first causal factor is demand sided, and certainly at least partly originating in Europe, the second lies on the supply side, and has its roots in the US. There, a quiet but important 'revolution' (Yergin and Inieson 2009) took place simultaneously: unconventional gas became exploitable at economical costs. Enabled by technological innovation, namely vertical drilling and 'fracking' rock formations, unconventional gas altered supply and production more than at the margin in North America. By some estimates, the US now sit on some 2,102,650 trillion cubic feet (TCF) of recoverable gas (MIT 2010: 10), the equivalent to 90 years of current consumption. As a corollary, due to faltering costs and an incentivizing high-price environment, shale gas production soared in the US and Canada. In 2009, US gas production surpassed Russian production (Reuters 2010c), running at some 20,955 billion cubic feet (BCF) or 593 billion cubic meters (bcm), compared to 461.5 bcm of Russian production (EIA 2010; Gazprom 2009). Now, almost all of the natural gas consumed in the US is produced on the North American continent.

However, some gas producer countries, notably Qatar, had invested large sums into developing Liquefied Natural Gas (LNG) capacities in anticipation of American demand. It was expected that the US economy would become increasing reliant on gas imports to replace coal, and compensate for faltering domestic gas production levels. These new volumes came onstream as US shale gas production soared and global demand faltered. As the US market could no longer absorb

additional volumes of – comparably more expensive – LNG imports, cargos searched for markets elsewhere: Europe. Now, a downward spiral was set in motion. LNG cargos started to swamp the European market, while LNG re-gasification terminals in the US, frantically built up during a period of (perceived) growing import dependency, lay dry and mothballed. At the same time, the European market, having seen a slump in demand and oversupplied already by piped gas from the East, became the destination of choice of redirected LNG cargos (IEA 2009: 96).[2] As a consequence, prices on Continental European spot markets (notably NCG) and the UK (NBP) went rock bottom. At NBP in 2009, gas sometimes traded at a price of around 30 per cent of oil-indexed pipeline gas (BNP Paribas 2009). Put differently, buying gas on the spot market came with a considerable discount for end-consumers. In all, as a consequence of faltering demand and a US market saturated by shale gas, Europe tilted towards a buyers market.

This had two effects. For one, as also discussed in more detail by Kim Talus in this volume, major European utilities such as Germany's E.On Ruhrgas, Wingas and RWE, Turkey's Botas, Italy's Eni, France's GDF Suez, Austria's EconGas, Finland's Gasum, bound in long-term take-off contracts (LTCs) with Russian or Norwegian suppliers, came under pressure. LTCs oblige importers to buy a minimum quantity of gas per year, at a price that's tied to the oil price, usually lagged by some six months.[3] Due to the faltering demand, however, the market could hardly absorb even the minimum quantities utilities that were obliged to buy according to their off-take agreements (*Wall Street Journal* 2009). They also found it hard to roll-over contracted volumes to later quarters as economic recovery was highly uncertain. At the same time, they had to cope with depressed (spot) market prices in the end user market, endangering margins and profits. As a consequence, importers had every incentive to push for a change in contractual arrangements, acknowledging the new price environment. Hence, they started to seek to move away from the oil price peg, and replace the latter with an orientation towards (lower) spot prices. In fact, in early 2010, E.On, ENI and GDF Suez eventually managed to index around 15 per cent of contracted volumes to such a new formula (RBC 2010; Reuters 2010b). Norway's Statoil, another main supplier to EU consumers, apparently agreed to sell up to 30 per cent of its contracted gas at spot prices (RIA Novosti 2010).

Second, producers dependent on Western European consumers, notably Gazprom, started to face a problem as well. Instead of serving a gas-hungry European market as the main and often exclusive

supplier, Gazprom rather saw competition from LNG imports, putting in question market shares. This depressed exports, which, depending on the used estimate, contracted between 8.8 per cent (Gazprom 2009), 11.5 and 15 per cent (*The Moscow Times* 2010) in 2009. Adding to decreasing sales volumes that reduced revenues, Gazprom faced an additional fiscal backslash due to above-mentioned discounts for European utilities, amounting to estimated 2 billion USD in 2010 alone (RIA Novosti 2010). Hence, instead of profiting from rising gas prices (a result of resurging oil prices) to at least partially make up for the losses in volumes, Gazprom instead had to give additional discounts, so as to not alienate major European importers it crucially relied on. Gazprom, as a consequence, strongly voiced claims that the current gas glut would be temporary and that the LTC model, and particularly its oil price indexation, should be left untouched (RIA Novosti 2011). There indeed is indication that the gas glut might disappear sooner than expected. Potential factors include slower LNG development in Qatar, and a de facto moratorium on nuclear after Fukushima in many European countries, topped by a nuclear phase-out in Germany, the largest European gas market. Yet, the trend towards more market-based models in natural gas trade seems irreversible (Stern and Rogers 2011), and reflects the 'new realities' of the Eurasian gas market in which growing gas-to-gas competition is increasingly challenging incumbent LTC models (Konoplyanik 2011).

What are the consequences of these fundamental changes, for producers, consumers and other involved (market) actors? The next section explores emerging risks and contingencies related to a changing gas market landscape in Eurasia.

3. New risks: Pricing, supply, market stability

As standard political rhetoric suggests, more liquid and competitive markets imply better prices and more energy security for consumers. As a consequence, the changing energy landscape in Eurasian gas markets – characterized by an increased LNG intake and a greater diversity of sources of gas supplies – has led observers to primarily stress changing geopolitical conditions, notably a weakening Russian 'grip on Europe' (Baker Institute 2009; Kuhn and Umbach 2011; Pagnamenta 2009). Yet, more important and possibly less 'positive' implications may in fact lie elsewhere. As this chapter argues, the shale gas sea change and its ramifications in Eurasian gas may entail new and significant challenges.[4] In fact, existing Eurasian gas market arrangements and Eurasian gas

relations are not only shifting from a sellers' to a buyers' market, they are undergoing a phase of fundamental transition. As this section further discusses below, this transition takes place on four fronts: contractual arrangements; pricing patterns and development; time horizons; and market balance.

As already indicated earlier, a decade-old pattern of long-term take-or-pay agreements, with a gas price pegged to a basket of (crude oil based) substitutes, is appearing to give way to a new, as yet undetermined mode. As prominent observers note, the long-term character of these contracts is not necessarily in question (Stern 2010). However, one of the emerging key features will be how changes to the historically developed and well-balanced allocation of risks entailed in gas projects between producers and importers will be managed. Given the high capital intensity and the long lead times of the gas business, take-off agreements emerged as a means to account for two equally pressing sources of risks – volume and price. In essence, take-off agreements left the volume risk with the importer as the latter agreed to buy up a certain volume of gas over a certain period of time without having certainty about market demand in the future. The price risk, by contrast, was left with the producer, as the latter was not able to influence the very oil price developments to which gas was pegged. The peg, however, enabled the importer to cope with the volume risk, as the gas price for the end user was competitive vis-à-vis key competitor fuels and thus allowed the development of a sizeable consumer market, able to eventually take the contracted volumes.[5] As a consequence, sometimes the entire volume of a newly developed gas field was contracted between only two parties – a producer company in, say, Russia, and an importing utility in, say, Germany. Now, this traditional allocation of risk is being put in question. While the long-term character of Eurasian gas contracts is probably not challenged by gas-to-gas competition from LNG imports, the oil price peg certainly is. First, oil indeed is no longer the competitor fuel to natural gas, as it had been in the early stages of the developing European gas markets, and hence an oil price peg is becoming increasingly questionable. Second, and more importantly, due to additional LNG intake and depressed demand, the Continental European market is rapidly becoming more liquid, strengthening spot markets, fostering gas-to-gas competition and providing for arbitrage margins for traders and companies (IEA 2009: 29). In fact, as observers note, there currently exists a two-tier pricing system, one that's spot-based and a second, 'traditional' LTC-based one (Stern and Rogers 2011: 26). Possible emerging pricing patterns may range from keeping a gas

price peg, orienting the peg towards spot market developments, or abandoning the peg altogether.[6] With this, and regardless of the eventually dominant contractual pattern, the explicit historical allocation of risks entailed in natural gas projects is coming to an end, giving way to an increased degree of uncertainty among both producers and established major importers. At the same time, the way is being paved for fundamental changes in the market.

The ongoing transition of Eurasian gas markets has four major dimensions. First, depending on short- to mid-term market developments, consumers – particularly end users in industry – have an incentive to 'switch' between fuels. If advantageous, gas would be replaced by coal or renewables, with the (spot) price determining the fuel of choice. Fuel switches however, in turn, imply less planning security on consumed volumes in gas. This comes with implications for both exporters and importers. Importers no longer have long-term planning security in the end user market, and may be less inclined to commit to contracting large volumes over a time period spanning decades, as they did in 'traditional' take-off agreements. For producers in Russia, Norway or the Caspian, in turn, increased gas-to-gas competition may come with uncertainty on long-term demand and cost margins. Compared to their US counterparts in the shale gas business, these companies cannot shut down wells once demand or prices drop below competitive levels. In other words, volumes produced cannot be adjusted flexibly to developments in consumption, but need to be stored (which is expensive) or redirected (which often is not feasible due to lacking infrastructure). This may have implications for the suppliers' readiness to develop new, technologically demanding and hence highly expensive fields, adding to or replacing maturing ones. Russia's decision to postpone development of the giant Arctic Shtokman field, once a top priority in Gazprom's E&P projects, already reflects a growing risk averse attitude in a changing market environment (*Wall Street Journal* 2010). Qatar's recent slowdown in rolling out additional LNG trains may reflect the same concerns (Reuters 2010a).

Second, prices that increasingly reflect real supply-demand patterns and are formed on spot markets may provide undesired incentives to some market actors. Not only may markets remain depressed for some time to come; they may also become more volatile. As studies on the British gas market have shown, gas prices formed on spot markets tend to overshoot upwards or downwards, due to the cyclical nature of the market.[7] During periods of high volatility, the current price tells little about future price levels (Hunt and Markandya 2004: 10). As a consequence of this uncertainty about future revenues, and

given the fact that upstream projects are very costly and have lead times of several years, producers may simply abstain from investing into new projects. In that, the Cobweb cycle, a typical phenomenon for resource and commodity markets, may be amplified (Ezekiel 1938). Plummeting prices may over proportionally disincentivize upstream investments, while overshooting ones may do the contrary – leading to shortages or gluts in the market some years down the line. The oil-pegged pricing system instead tended to smoothen out strong volatility as adjustments came with a time lag, contracts usually defined a base floor price, and pricing formula were to a certain extent adjustable.

Third, and related, time horizons may shorten, both among producers and consumers, but particularly among traders who are an increasingly important group of gas market actors. This may be severely at odds with required planning security in the gas market, which ideally runs in decades rather than years. As a consequence, hefty market swings may occur, adding to the effects described above.

Fourth, once the non-take-off bound part of the gas market expands, so does the market share that is open to cartelization. Prevalent take-off agreements and their entailed oil price peg ensure that any tinkering on supplied volumes does not translate into price hikes, that is makes any attempt to cartelize the Eurasian gas market a pointless exercise. Breaking up this contractual structure, particularly the oil price peg, and leaving prices to 'the market', in turn means that volumes and hence prices may become subject to possible manipulation. This point is admittedly ironic, as the standard reference to market imbalance is usually made with regards to Russia as a main gas exporter to Europe. Yet, as a quick look at major sources of European gas imports reveals, the supply side of the market is likely to be oligopolistic, rather than characterized by a large number of producers. Attempts to pool market power in an emerging Gas Exporting Countries Forum (GECF) may therefore eventually bear fruit in a more liquid gas market (Hallouche 2006). Particularly in times of a buyers' market, producers face great incentives to push for coordination on volumes and prices. Russia's revived interest in the Forum and recent moves to a more formalized organizational structure may be seen as steps towards this direction (see Stern 2010: 4; Stern and Rogers 2011: 15).

With regards to energy security, current market changes may therefore, at best, come with additional uncertainty. At worst, they may entail considerable risks with regards to security of supply, (smooth) price developments and market balance. The next section discusses the key governance challenges arising for Eurasian gas markets.

4. Implications for Eurasian gas market governance

As has been argued in the previous section, established Eurasian gas market arrangements and Eurasian gas relations – established and mutually 'tested' by market and government agents for decades – are undergoing a fundamental phase of transition. It is not the intention of this chapter to suggest that this transition towards yet un-chartered territories in European gas is (normatively) undesirable. Yet, in line with our teleological notion of (market) governance, the primary goal of Eurasian gas governance should be to provide for the 'right' incentive systems to help involved actors in achieving new, stable equilibrium. Two issues matter most in this context: pace and mechanisms.

With regards to the pace, much depends on how far involved market actors look into the future. As discussed above, the current oversupply in gas markets may give way to a tighter market situation again some years down the line. Gas demand is set to grow, due to its assumed function as a bridge fuel and given the setback nuclear has experienced in the wake of the Fukushima events. Adjustments in gas pricing should therefore not be made on the assumption that spot prices will necessarily imply a better deal for consumers. A new pricing system will, as a consequence, crucially need to balance current pressures stemming from a still depressed market environment and expectations about longer-term market developments. In essence, two options are available to reform the oil indexed LTC model: 'big bang' versus incrementalism. In the big bang approach, existing contracts are reviewed across the board. A possible way to go would be litigation, as suggested by Stern and Rogers (2011: 30). Contractual adjustments through litigation may either end up in fundamental changes in the arrangements, or the termination thereof. In any case, they are abrupt and swiftly clear the way to a new system. An incrementalist approach would by contrast imply a softer, gradual transition. As argued by Konoplyanik, LTCs have historically proved flexible enough to adjust to changing market environments. Since their first establishment in the early 1960s, LTCs have moved from pure oil price indexation to ever more diverse and complex arrangements, allowing for additional pricing components being built into the contractual formula, including partial spot indexation (Konoplyanik 2010a: 12). Instead of simply switching to a spot-based system, Konoplyanik therefore argues for an 'evolution' rather than a 'revolution' (Konoplyanik 2010b). Such an approach would be in line with Stern and Roger's second suggestion, a negotiation-based adjustment. While negotiations may have their drawbacks, they are gradual

in nature and may enable involved parties to preserve workable business relationships, compared to abrupt shifts. Since natural gas is a business with long lead times and highly capital intensity, the mode chosen to change contracts and pricing patterns will have crucial repercussions on market fundamentals. A gradual approach would likely prove advantageous in many regards, as market actors could test the new arrangements, and its effects on prices, (possibly increasing) volatility and consumer choices.

Switching to the mechanisms, governance arrangements addressing risks and uncertainties related to the ongoing transition on natural gas markets inevitably vary. Some are even at odds with each other. In essence, they run along two continua: market – state; and national – transnational (see Figure 10.1). While some risks require state-sponsored mechanisms, others can be dealt with by markets if well regulated. Further, while some contingencies can be dealt with on a national level, others can only be addressed on a regional or global – in any case transnational – basis. In some cases, competing or complementary options exist. Since it is outside the scope of this chapter to comprehensively list and discuss available and possible governance

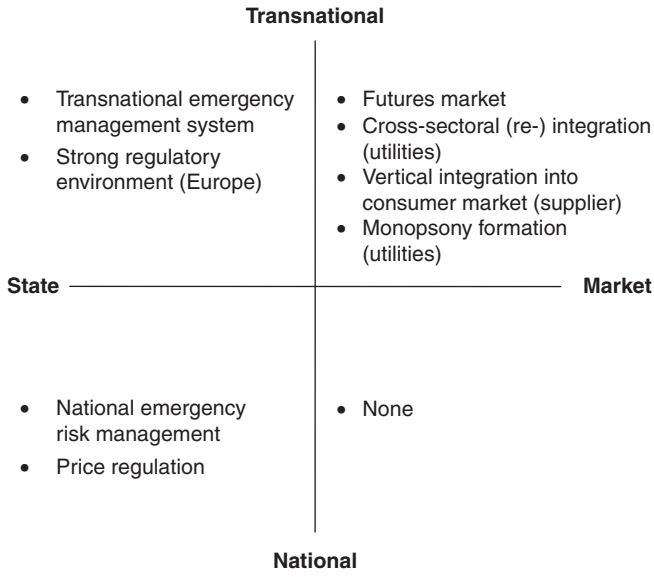


Figure 10.1 Examples of risk-hedging governance arrangements on a state–market continuum

mechanisms in Eurasian gas, what follows addresses examples of governance arrangements that stand for a larger category (e.g. state-national; market-transnational; etc.) to illustrate their characteristics and possible shortcomings.

As for uncertainty on prices (and volumes), a typical market-based governance mechanism would be a functioning futures markets. On such markets, participants can sell their risk to third parties and ensure they receive a certain quantity at a certain price at a certain moment in time. Gas futures have been established as common vehicles in liquid gas markets such as the US to hedge risks among consumers, but also utilities. Similarly, the UK market, liberalized now for decades, and comparatively liquid, can serve as a reference point. In both markets, traders and investors have accumulated considerable experience dealing with various hedging models. Hedging risks through futures markets however requires thorough regulation of that market in order to ensure it functions well – a governance challenge that touches upon other, non-gas-related sectors. Further, futures markets in gas may open the floor for a phenomenon observed in oil: speculation, 'paper gas', and the emergence of financial market actors as main players in the gas business. Some observers note that in the oil market the existence of options and futures markets has had the effect of increasing volatility instead of decreasing it, due to additional, often speculative money pouring into that market. Pointing to this problem, Konplyanik argues that pegging gas prices to financial market instruments is 'most profitable firstly to traders and speculators and not to producers and consumers of real goods' (Konoplyanik 2010c: 32).

By contrast, a typical state-run model to deal with uncertainty on volumes (and, to a certain extent, also on prices) would be a gas storage system. Such a system, as proposed and currently implemented by the European Commission, has however only a limited impact on the key problem discussed here. For one, it would only be able to deal with cases of emergency, that is extreme and abrupt shortages of supply, and not with gradual and coordinated reductions by producers. Further, it does not necessarily help market actors to better cope with risks. In addition, it is costly and crucially requires being flanked by a more integrated transnational gas infrastructure. With regards to the latter point, and as argued elsewhere in more detail, there might be a strong collective action problem involved, providing for adverse incentives for free riders (Goldthau 2011).

In order to deal with problems relating to pricing and manipulation, creating a strong regulatory environment on the European level might

help. This, however, may only be effective to the extent that traders and utilities are operating within European jurisdictions. It would, however, fall short of addressing price manipulation stemming, for instance, from the producer end.

It is also important to note that companies themselves have the possibility to hedge against price or volume risks through corporate strategies. Producers such as Gazprom can integrate further down the value chain, into the European natural gas downstream market. While Gazprom has in the past attempted to pursue this strategy primarily for reasons of controlling the profitable end consumer segment, such a move now makes sense also in terms of influencing downstream gas pricing, and to further integrate into related sectors such the electricity market. Gazprom's recently aired interest in becoming a strategic investor in Germany's EoN may well be regarded as a step towards this direction (Reuters 2011). European utility companies, in turn, can integrate across sectors and countries. As noted by Stern and Rogers (2011), this is exactly what started to happen during the last few years, when European gas companies evolved into integrated energy companies, particularly covering the crucial gas-electricity link (Stern and Rogers 2011: 15).

Further, threats of supply side cartelization can be balanced by formation of monopsonies among European gas purchasers. While this option admittedly runs counter to the liberalization efforts promoted by the European Commission, and though obviously constituting a textbook case of market failure which state intervention should seek to correct, it is not unthinkable. Recent discussions surrounding a 'Caspian Development Corporation' to act as a single purchasing vehicle on behalf of European utilities can be regarded as an attempt to pool fragmented consumer power vis-à-vis potent producers (IHS CERA 2010).

Purely national options – whether in the public or private sector – however remain limited. States can resort to setting prices through regulation in order to protect consumers again price hikes or volatility, but this obviously faces limitations. Companies can try and hedge market control by effectively lobbying for their purposes. Governance arrangements of this kind, observed also in the process of European gas market liberalization, would however be along the lines of protectionism and face strong opposition from Brussels (see also the discussion by Talus in this volume).

While certainly not comprehensive, this brief overview points clearly to key challenges for any arrangements aimed at flanking the current transition process in natural gas markets. First, they need to be transnational, in order to account for the nature of the current shifts.

Second, they need to hedge against risks arising with regards to new market (im)balances, to the extent they did historically in the case of piped gas. Third, they need to provide actors with sufficient planning security, while at the same time hedging the interests of producers and consumers. And finally, not all of these goals can be achieved simultaneously, nor by the same means. Hence, governance arrangements need to be based on normative prescriptions – whether state-based or market-oriented – in order to be judged effectively.

5. Conclusion

This chapter started off with the recognition that gas markets are currently undergoing a major transition due to a prevalent gas glut, caused by a 'shale gas revolution' in the US coinciding with depressed demand. It investigated the implications of these changes for the nature of Eurasian gas market governance, that is institutional arrangements aimed at mitigating emerging risks and facilitating exchange within multi-level and multi-actor based interactions in Eurasian gas. Particular governance challenges will arise with regards to the transition period from an indexation-based to a market-based formula on Eurasian gas. Here, it has been suggested that a gradual approach might be preferable in order to enable learning during the inevitable shift. It has also been argued that governance challenges now emerge on new fronts, notably including risks related to increased price fluctuations, strengthened options to at least partially cartelize globalizing gas markets, and Cobweb cycle-related incentive problems for key producer countries. As a consequence, Eurasian gas market governance will need to account for new actors and shifting power distributions. Governance arrangements addressing some of these challenges can be market based, such as functioning futures markets, or state based, such as gas storage facilities. Some arrangements are at odds with each other, for example monopsony formation to balance supply side power may run counter to a pro-market agenda.

This chapter has explicitly abstained from discussing additional issues that would require specific governance related answers. A dominant discussion, for instance, centres on whether the American success story can be replicated elsewhere, particularly in Europe. According to a recent study by the US Energy Information Agency, there indeed is significant potential of shale gas plays in several European countries including Poland and Austria (EIA 2011). Doubts have been expressed by various

observers that shale gas could become as dominant a source of European supplies as it now is in the US, due to legal, environmental and technological constraints.[8] For Europe, there are also fiscal and regulatory issues that need to be solved. While these challenges deserve more investigation, they are not central to the arguments made in this chapter. European gas markets are heavily impacted by soaring shale gas production in the US coupled with growing global LNG capacity – regardless of whether or not Europe will produce indigenous shale gas. Another issue that may deserve further attention is a possible carbon lock-in due to the crowd-out effects of renewables. In essence, the shale gas revolution simply means that gas is 'here to stay'. Natural gas is widely regarded as a fuel of choice during a gradual shift towards a low carbon energy future. The price of the 'golden age of gas' (IEA 2010b: 179) may therefore be a prolonged dependence on this – abundant and comparably cheap – fossil fuel.

In all, the current transition of natural gas markets entails major governance challenges. Carefully crafted policies are needed in order to account for the contingencies and risks entailed for involved parties in current gas market dynamics in European and Russia. Transitions are contingent processes. They create winners, losers and frictions – obviously also in the case of natural gas markets. Most fundamentally, however, transition processes are characterized by uncertainty. A key governance challenge surrounding the above-discussed issues therefore exists in enhancing mutual trust, strengthening time horizons and, ideally, providing for a set of procedural rules during disputes. On this account, a lot of work is still needed.

Notes

1. In this chapter the terms shale gas and unconventional gas are used interexchangeably, in line with public policy discourse on the topic. For a scientific overview between the various forms of unconventional gas, see MIT. 2010. *The Future of Natural Gas: An Interdisciplinary MIT Study*. Cambridge, MA: MIT.
2. China and India do not yet have enough regasification terminals to absorb large quantities of LNG.
3. For a more technical discussion of gas pricing arrangements, see Energy Charter Secretariat (2007) *Putting a Price on Energy: International Pricing Mechanisms for Oil and Gas*. Brussels.
4. We focus on risks related to market governance. For a discussion of the potential carbon impact of unconventional gas, see, for instance, Howarth, Robert W., Renee Santoro, and Anthony Ingraffea. 2011. Methane and the Greenhouse-gas Footprint of Natural Gas from Shale Formations. *Climatic*

Change DOI 10.1007/s10584-011.; for an overview of issues related to other environmental issues, see Wilson, William. 2011. Shale Gas's Environmental Obstacles. *Petroleum Economist*, 16 June.

5. I am indebted to Thomas Geisel of EoN Ruhrgas for pointing me to this crucial feature of take-off agreements.
6. For a discussion of the recent evolution on European gas markets, see Stern, Jonathan. 2010. Continental European Long-Term Gas Contracts: Is a Transition Away From Oil Product-Linked Pricing Inevitable and Imminent? *Oil, Gas & Energy Law Intelligence*, June. and Stern, Jonathan. 2007. Is there a Rationale for the Continuing Link to Oil Product Prices in Continental European Long Term Gas Contracts?
7. See Asche, Frank, Petter Osmundsen, Marius Sikveland, and Ragnar Tveteras. 2007. Volatility and Risk Sharing in European Gas Markets. Paper read at International Association for Energy Economics, 10–13 June, at Florence. for an empirical discussion of this point.
8. See, notably, Stevens, Paul. 2010. *The 'Shale Gas Revolution': Hype and Reality*. London: Chatham House, 15f. and Gény, Florence. 2010. Can Unconventional Gas be a Game Changer in European Gas Markets?. Oxford Institute for Energy Studies.

Bibliography

Aalto, Pami. 2007. *The EU-Russian Energy Dialogue: Europe's Future Energy Security*. Aldershort: Ashgate.

Asche, Frank, Petter Osmundsen, Marius Sikveland, and Ragnar Tveteras. 2007. Volatility and Risk Sharing in European Gas Markets. Paper read at International Association for Energy Economics, 10–13 June, at Florence.

Baker Institute. 2009. Russia and the Caspian States in the Global Energy Balance. *Baker Institute Policy Report* 39.

BNP Paribas. 2009. Gas Trends, July.

Butler, Nick. 2011. How Shale Gas will Transform the Markets. *Financial Times*, 8 May.

EIA. 2010. Country Analysis Briefs: United States. Washington DC: Energy Information Agency, US Department of Energy.

EIA. 2011. World Shale Gas Resources: An Initial Assessment of 14 Regions Outside the United States. Washington DC: Energy Information Agency, Department of Energy.

Energy Charter Secretariat. 2007. *Putting a Price on Energy: International Pricing Mechanisms for Oil and Gas*. Brussels.

Ezekiel, Mordecai. 1938. The Cobweb Theorem. *Quarterly Journal of Economics*, 52 (2): 255–80.

Gazprom. 2009. Management Report. Moscow.

Gény, Florence. 2010. Can Unconventional Gas be a Game Changer in European Gas Markets?. Oxford Institute for Energy Studies.

Goldthau, Andreas. 2011. A Public Policy Perspective on Global Energy Security. *International Studies Perspectives*. (13): 64–83.

Hallouche, Hadi. 2006. The Gas Exporting Countries Forum: Is it really a Gas OPEC in the Making? Oxford: Oxford Institute for Energy Studies.

Honoré, Anouk. 2011. Economic Recession and Natural Gas Demand in Europe: What Happened in 2008–2010?. Oxford Institute for Energy Studies.
Howarth, Robert W., Renee Santoro, and Anthony Ingraffea. 2011. Methane and the Greenhouse-gas Footprint of Natural Gas from Shale Formations. *Climatic Change* DOI 10.1007/s10584–011.
Hunt, Alistair and Anil Markandya. 2004. Final Report on Work Package 3: The Externalities of Energy Insecurity. European Commission.
International Energy Agency (IEA). 2009. *Natural Gas Markets Review*. Paris.
International Energy Agency (IEA). 2010a. *Natural Gas Information*. Paris.
International Energy Agency (IEA). 2010b. *World Energy Outlook 2010*. Paris.
IHS CERA. 2010. Caspian Development Corporation. Final Implementation Report.
Jaffe, Amy Myers. 2010. Shale Gas Will Rock the World. *Wall Street Journal*, 10 May.
Kefferpuetz, Roderick. 2010. Gazprom's Uncertain Future within the Gas Market's 'Quite Revolution'. *Baltic Rim Economies*, 1: 445.
Konoplyanik, Andrei and Thomas Wälde. 2006. Energy Charter Treaty and its Role in International Energy. *Journal of Energy and Resources Law*, 24 (4): 523–59.
Konoplyanik, Andrey. 2010a. Evolution of Gas Pricing in Continental Europe: Modernization of Indexation Formulas Versus Gas To Gas Competition. *International Energy Law and Policy Research Paper* Series (01). Centre for Energy, Petroleum & Mineral Law & Policy, University of Dundee.
Konoplyanik, Andrey. 2010b. Gas Pricing: Evolution Not Revolution. *Energy Economist*, November (349): 6–8.
Konoplyanik, Andrey A. 2010c. Evolution of Gas Pricing in Continental Europe: A View From Russia – Modernization of Indexation Formulas versus Gas-to-gas Competition. *Oil, Gas & Energy Law Intelligence*, June.
Konoplyanik, Andrey. 2011. Gazprom's Concessions in Oil-indexed Long-term Contracts Reflect 'forced adaptation' to new realities. *Gas Matters*, April.
Kuhn, Maximilian and Frank Umbach. 2011. Shale Gas: A 'Game Changer' For European Energy Security. *GWPF*, 11 May.
Lavenex, Sandra. 2004. EU External Governance in 'wider Europe'. *Journal of European Public Policy*, 11 (4): 680–700.
MIT. 2010. *The Future of Natural Gas: An Interdisciplinary MIT Study*. Cambridge MA: MIT.
Pagnamenta, Robin. 2009. World Gas Glut will Weaken 'Russian grip on Europe'. *The Times*, 11 November.
Prange-Gstöhl, Heiko. 2009. Enlarging the EU's Internal Energy Market: Why would Third Countries Accept EU Rule Export? *Energy Policy*, 37 (12): 5296–303.
RBC. 2010. Gazprom;s European Partners to Get Gas with Discount, 27 February.
Reuters. 2010a. All Qatar LNG Trains Restarted, Bearish for Prices, 14 July.
Reuters. 2010b. Gazprom Adjusts Gas Pricing to Defend Market Share, 19 February.
Reuters. 2010c. Russian Minister Says Shale Gas a Problem for Gazprom, 19 April.
Reuters. 2011. German Government in Favour of Gazprom-E.ON deal, 7 June.
RIA Novosti. 2010. E.On Ruhrgas Presses Gazprom for Discounts Again, 20 August.
RIA Novosti. 2011. Gazprom Rejects E.On Request to Peg Supplies to Gas Spot Prices, 21 February.

Stern, Jonathan. 2007. Is there a Rationale for the Continuing Link to Oil Product Prices in Continental European Long Term Gas Contracts? *International Journal of Energy Sector Management*, 1 (3): 221–39.
Stern, Jonathan. 2010. Continental European Long-Term Gas Contracts: Is a Transition Away From Oil Product-Linked Pricing Inevitable and Imminent? *Oil, Gas & Energy Law Intelligence*, June.
Stern, Jonathan, and Howard Rogers. 2011. The Transition to Hub-Based Gas Pricing in Continental Europe. Oxford Institute for Energy Studies.
Stevens, Paul. 2010. *The 'Shale Gas Revolution': Hype and Reality*. London: Chatham House.
The Moscow Times. 2010. E.On Asks for Lower Gas Prices, 23 August.
Wall Street Journal. 2009. European Energy Firms Fall Short in Gazprom Purchases, 24 October.
Wall Street Journal. 2010. Gazprom Delays Start of Shtokman Gas Field, 5 February.
Wilson, William. 2011. Shale Gas's Environmental Obstacles. *Petroleum Economist*, 16 June.
Yergin, Daniel, and Robert Inieson. 2009. America's Natural Gas Revolution. *Wall Street Journal*, 2 November.
Youngs, Richard. 2009. *Energy Security: Europe's New Foreign Policy Challenge*. London: Routledge.

11

Winds of Change: Long-Term Gas Contracts and Changing Energy Paradigms in the European Union

Kim Talus

1. Introduction

European gas markets have traditionally been based on long-term contractual relations between the EU importers, typically a national monopoly company or a company with special or exclusive rights, and the external producers. In the EU, the background to this contractual model was the development of the Groningen field in the Netherlands, and it is based on the concept of replacement value and long-term minimum-pay export contracts. These are designed to attract the highest possible rent from the gas field before depletion (ECT 2007: 146). However, due to the special characteristics of natural gas, particularly in comparison to oil, this need for long-term contracts has been accepted as a general principle of energy governance in various markets around the world (Smith et al. 2010: 1047). Out of the three main natural gas markets in the world, only the United States has in large part moved away from long-term contracts towards short-term trading (Petrash 2006: 545). Europe and the Asia-Pacific still rely on traditional long-term contracts. Similarly, while the Asia-Pacific relies on oil price indexation, the US has moved to hub-based pricing of natural gas. In Europe, an energy governance paradigm shift has started to occur in this respect. The traditional structure of long-term natural gas contracting with take-or-pay clauses, oil price linkages and netback pricing appears to have reached a crossroads (Talus 2010a: 8–12). The context in which these contracts operate has significantly changed, and this has not come without consequences to the contracts themselves. There is increasing pressure to review some of the key elements of the traditional long-term natural gas contracts, including the pricing mechanism.

Clearly, the EU natural gas markets are changing. A range of both regulatory and market-based factors are driving these changes. The latter would include organisational changes, changes in the factual setting of the EU natural gas markets, including rapid decrease in demand, ample supply of LNG and so on. The regulatory changes include the introduction of third-party access (TPA), unbundling and more effective market supervision. Similarly, the new rules on congestion management and the progress towards ever-shortening capacity contracting have significantly changed the regulatory framework in which long-term gas contracts operate (Talus 2011).

One relevant question in this respect is why the markets started to change. The EU and the European Commission in particular have attempted to liberalise and create a competitive internal market for over two decades (Commission Working Document (COM (88) 238 final)). Did these attempts, and the three consecutive energy market packages, finally deliver the intended results? Or have changes in the global LNG markets, the decreased demand and the gas glut driven market changes? In fact, there has been a role for both. Regulatory changes, including effective TPA, the move towards shorter and shorter term capacity reservations, the unbundling of supply and transportation and the effective regulatory oversight of EU energy markets created the preconditions for a change. Without these crucial regulatory changes, the national incumbents would have been protected against most of the negative consequences stemming from increased volumes of low-priced LNG. Without the possibilities of access to markets and international competition, the market position of the incumbents would have been protected, and any price increases would have been rolled over to the customers. As such, the regulatory changes pushed by the European Commission had a central role in the changes that have been experienced in the recent years.

However, the industry largely resisted liberalisation and the opportunities it provided until an external element changed the underlying economics. It was only once the industry felt directly the (negative) impact of the new rules of the game that a change started to emerge. Both a demand decrease, driven by a global recession, and the rise of unconventional sources of natural gas, driven by innovations from the industry itself, created pressure on the traditional natural gas market paradigm marked by long-term contracts. The situation can be characterised as follows: the clear driver of change has been the changing market conditions and associated innovations from the industry itself.

The role of the new regulatory framework was to create the necessary preconditions for the change.

Essentially, this chapter focuses on the dynamics of energy governance. It will examine the drivers of the ongoing transition and the contemporary changes to the traditional form of energy governance based on long-term natural gas contracts. The chapter will evaluate the relative weight of explanatory factors, and examine how this change of paradigm can be attributed to the dynamics of a liberalised market and rivalry between firms, or to a successful regulatory model or some combination of these factors. It will first examine the non-regulatory factors affecting EU natural gas markets and long-term natural gas contracts. Here, the focus will be on international LNG markets and changes in the industry structure. The chapter will then move on to examining the regulatory changes that have taken place over the last 20 years, focusing on the impact of these changes on EU natural gas markets.

2. Non-regulatory changes affecting the long-term contracts

While the regulatory changes detailed in the next sections are significant for the present purposes, they are not the only explanatory factors in the changes to EU natural gas markets. There are a number of fundamental changes in the markets and the mindset of the market actors that play a key role. The main non-regulatory change has been the rapid and fundamental transformation of international LNG markets. In essence, spot prices in EU natural gas markets plummeted in 2009 because of three factors:

- New volumes of LNG, such that liquefaction capacity is predicted to grow by 47% between 2008 and 2013.
- Closure of US markets due to a boom in unconventional gas production, such that US shale gas production has increased by 33 bcm in the last 10 years or 16% from 2005 to 2009 (IEA 2010).
- Rapid decrease in demand due to the recession. Gas demand in 2009 went to its lowest levels since 2002 (Eurogas 2011).

These factors put pressure on the oil-indexed prices in long-term contracts in Europe and Asia (IEA 2010). Comparing the prices charged by Gazprom under the oil-indexed long-term contracts and the UK spot market prices, it is easy to see why. The price for Gazprom's European

customers was around $307 per 1000 cubic meters in the first quarter of 2010, where the average price in the UK spot markets was around $187 (Bloomberg 2010). Similarly, Stern and Rogers show how during 2010, the average day ahead prices at the Dutch virtual trading point for gas, the Title Transfer Facility (TTF), was 25% lower than that of oil-linked prices – with a low of 57% and a high of 92%. Given the large difference in price, it is not difficult to see the problems faced by sellers offering gas purchased under the oil-indexed long-term contracts (Stern and Rogers 2011).

Natural gas demand will continue its long-term growth. The growth in natural gas consumption will be driven by power generation, and combined-cycle gas turbine technology will remain the preferred option for new power stations (IEA 2010). The International Energy Agency (IEA) estimates that the gas glut will grow and peak in 2011, reaching over 200 bcm, before starting to decline. The trade in liquefied natural gas (LNG) will double from 2008 to 2035. Most of the growth will come from near term projects (IEA 2010). However, even if the glut declines in the future, there will be significant pressure on producers to move away from oil price indexation. As the demand is most likely to grow slowly in Europe, compared to Asia, the pressure to modify the pricing structure is going to be greatest in Europe (IEA 2010).

3. Changes in the mindset of the industry

Traditionally, the natural gas business has been a long-term business. Not only were the contractual relations long-term, but so were the inter-company and inter-personal relationships between corporate officers. This type of relations-based business model has existed in EU natural gas markets for decades. However, the merger wave that took place in the post-2000 period, created very large utilities active in both electricity and gas, which often meant that the incumbent electricity companies took over comparatively smaller gas companies, and thus became active in the gas markets. This traditional gas market mindset, therefore, started to change. As Stern and Rogers explain:

> The resulting companies – usually with electricity executives dominating the board-level positions – share little of the corporate culture of the old European gas companies. They do not have the multi-decade "relationship culture" created by long term contracts, or any significant commercial experience of relationships with non-European external suppliers. Nor do they have any cultural affinity

> with traditional long term gas contracts (and oil-linked prices), tending to see these as a "throwback" to a bygone era.
>
> (Stern and Rogers 2011: 20)

Because of these changes, the approach to long-term contracting and certain elements of the traditional contracts started to change. A major event in this respect took place in August 2010, when the new Chairman of the Board of Management of E.ON Ruhrgas AG indicated that E.ON had moved against the continuation of the oil price linkage, and that the current long-term contracts with this linkage need to be adjusted. This, to quote Professor Jonathan Stern, is nothing short of proposing an 'revolution in the industry' (Stern 2009).

These are some of the non-regulatory changes that have had a profound impact on the EU natural gas markets and natural gas trade. Due to the flow of low cost LNG and the opportunities to purchase LNG in increasingly liquid spot markets, the incumbents had to approach their upstream sellers with the intent of renegotiating their oil-indexed contracts. Changes in the industry mindset, now favouring shorter term transactions, drove the process in a similar direction. However, without certain key changes in the regulatory framework for EU natural gas markets, this change is unlikely to have happened. The next section will focus on those changes.

4. Regulatory changes

EU energy market regulation is based on three main pillars: third party access, unbundling and strong regulators. These are complemented by other sectoral rules focusing on issues such as public service, security of supply or investment incentives. The objectives of this sector-specific body of rules are further supported by the strategic application of general EU competition law. The following sections will examine the most significant changes in the sector-specific regulatory framework for natural gas, since the advent of liberalisation.

5. Third party access under the sector-specific regulatory framework

One of the aforementioned pillars of the sector-specific regime in the EU is the regulation of TPA. The first attempt to create a TPA regime that was capable of creating competitive conditions in the EU natural gas markets

was the Directive 1998/30/EC. This Directive, due to the political realities at that time, provided options of regulated or negotiated TPA, or a mixture of these (Article 14 of Directive 1998/30/EC). However, this was merely a first step towards a more market-oriented regulatory model as opposed to being capable of creating competitive conditions itself.

The second energy market package, with the Directive 55/2003/EC and the Regulation 1775/2005/EC, took a significant step towards a regulatory system that could accommodate the emergence of a further degree of competition. Amongst a range of innovations, this package eliminated the choice between various TPA regimes and made regulated TPA the only option for the member states. However, much like the first regulatory body based on the Directive 1998/30/EC, this new regime failed to create competitive natural gas markets in the EU. One of the reasons for this was the continuing existence of long-term transportation capacity reservations that were allowed to accommodate the underlying commodity contracts, and were based on considerations like legal certainty and the protection of legitimate expectations. This failure was documented in the Sector Inquiry and has, thereafter, been widely debated.

The latest step along the way to competitive markets was the third legislative package, with Directive 73/2009/EC and Regulation 715/2009/EC, which became the applicable legal regime in March 2011. The new regulatory framework extends the application of the TPA rules to new areas and pushes the obligations of the transmission system operators (TSO) to a new level, for example, by focusing on investment and the need to ensure the long-term viability of the system. The fundamental aim of this regulatory framework is to create *capacity to compete*. For the trade in natural gas, this means that the long-term capacity reservations that were previously the *modus operandi* of the EU natural gas markets are being eliminated or phased out and that it has become substantially more difficult to discriminate in favour of certain parties.

Looking at the short regulatory history in EU natural gas, the notable trend throughout these regulatory regimes is the move towards a more comprehensive regulation of TPA and towards shorter term capacity reservations (Hauteclocque and Talus 2011). Given the traditional link between commodity and capacity contracts, these changes in the rules of the game have a direct impact on long-term contracting. An illustration of this impact is the question of the right-of-first-refusal and the Transit Protocol of the Energy Charter Treaty. Russia has been consistently insisting on the right-of-first-refusal. This is based on the idea that an existing shipper with a long-term gas contract must have the

opportunity to prolong access to transit capacities when their transit contract expires. The absence of this provision, coupled with the EU TPA regime, means that the Russian exporter, Gazprom, has a significant risk of losing access to the transit capacities. This would easily translate into the impossibility of fulfilling the long-term supply agreement (Shtilkind 2005). The European Commission, however, opposes the provision, noting that the EU could only accept this kind of right in relation to the existing Russian supply contracts, but not to future contracts within EU territories (ECT 2007: 174; Konoplyanik 2004). It would seem that this suggestion is based on the idea that legal certainty, the protection of legitimate expectation, and other similar legal principles should protect pre-existing contractual relationships. The absence of an agreement in this respect means that the use of long-term supply contracts faces a new threat.

6. Ownership unbundling under the sector-specific regulation

Similarly to what was seen in the previous section on TPA, the unbundling regimes in the EU energy *acquis* have moved progressively towards the ultimate option: separation of network activities from all other activities relating to the natural gas business through ownership unbundling.

Similar to the case of the regulation of TPA, the first Directive from 1998 (Directive 1998/30/EC) did not go very far in requiring effective separation of the natural monopoly segments of the natural gas markets from the competitive segments. Its requirements were restricted to account and management unbundling. The intention was to separate the accounts of network activities from those of generation and supply activities and to require that the management of the network activity be independent from that of the rest of the activities of the energy company. There were certain other rules ring-fencing the natural monopoly activities from the competitive activities as well, but it became soon clear that this level of unbundling was insufficient to create the necessary conditions for non-discriminatory TPA in gas networks.

The 2003 natural gas market Directive (Directive 2003/55/EC) took a step further and required the network operations to be legally separated from other activities of the company. Under this regime, the network company was to be a separate legal entity, with rules regarding managerial independence and other compliance programmes designed to strengthen this legal separation. The aim was the creation of

pre-conditions for the emergence of a company culture that was separate from the parent entity. In retrospect, one could argue that it was unrealistic to expect the management of an affiliate company to be able to neglect their own careers and collegiality in order to favour competitors threatening the incumbent firm's livelihood. The Commission sector inquiry 2005–07 showed that further action was necessary (Inquiry). It seems that the problem of these conduct-related rules – compared to a more drastic corporate restructuring – is that rules which are not aligned with normal personal and organisational incentives are always less effective than the design of organisational structures which produce the right incentives per se.

With the 2009 natural gas Directive (Directive 2009/73/EC), the European Commission attempted to impose ownership unbundling. The Directive requires the vertically integrated company to divest its assets in favour of third parties which are not themselves involved in generation or supply. However, due to political resistance from some of the large EU Members, in particular France and Germany, and to a lesser extent, questions on the compatibility of ownership unbundling with general EU law and even the European Convention on Human Rights, the new provisions on ownership unbundling were accompanied by other less intrusive options (Pielow et al. 2009; Talus and Johnston 2009). Under the new regime, member states can decide to opt either for full ownership unbundling (Article 9), an independent system operator model (ISO) (Article 14), or an independent transmission operator model (ITO) (Article 17) put forward by the Council (Goldberg and Bjornebye 2011).

Despite the shortcomings of the third legislative package and its unbundling regime, all three options require that one company cannot be involved in both transmission and supply/generation. Compared with the traditional vertically integrated business model that was adopted in the EU natural gas industry in its early days, these developments have a profound impact on the way the natural gas business is run. Together with the new rules on TPA and congestion management, they also impact upon the traditional contractual model for natural gas trade in the EU.

7. The regulators

In addition to the new substantive rules on TPA and unbundling, an effective regulatory scheme requires supervision and regulatory oversight. This is the third major change that has been progressively

introduced through the sector-specific energy regulation. In the EU, the regulatory functions relating to energy markets are divided into two: the member state and the EU levels. This section will now examine the regulatory framework that has created the current regulatory scheme on both of these levels. It will start with the member state level and then move to the EU level.

At the Member State level a number of public bodies share the competence to regulate energy markets. The primary body in this respect is the national energy market authority, with residual roles being played by certain regulatory and judicial institutions such as competition law authorities, administrative courts, consumer protection authorities and so on (Talus et al. 2010). This short overview of the regulation of energy markets at the national level will focus on the energy market authorities.

The Directive 55/2003 created the need to have one or more competent bodies at the national level with the function of regulatory authorities. There were also requirements of independence from the industry and certain minimum functions relating to access and pricing. The requirement for independence from the industry was due to the existing significant linkages between the industry and various national public bodies, not to mention the political elite. However, the Directive did not require independence from these other public bodies. This aspect emerged only with the 2009 Directives. In addition to the lack of independence from other government organisations, this first regime had certain inherent problems in terms of a lack of regulatory powers in cross-border situations, widely differing powers and mandates and limited resources. Many of these were rectified in the 2009 Directive. The new duties under the third energy market directives relate to areas like compliance with TPA rules, unbundling obligations and congestion management (Article 41 of Directive 2009/73/EC).

At the EU level various regulatory functions are shared among the European Commission, the European Parliament, the Council and the Agency for the Cooperation of Energy Regulators. The key player at the EU level is the Commission. The current institutional scheme provides the European Commission with a dual role. It has an obligation to initiate legislative action where this is necessary and an obligation to enforce EU competition rules. In the secondary role, the competition law authority has a significant impact on the energy markets and their structure. This will be examined below. In addition to the regulatory functions of the Directorate General for Energy, other Directorates (DG), including DGs for Competition, Environment and Climate Change, also play significant roles.

The latest addition to the EU-level regulatory body for energy is the Agency for the Cooperation of Energy Regulators. This type of EU-level institution was first discussed by the Commission in the 1990s when the first electricity and gas Directives were prepared. At that time, the idea was to ensure that this authority had competence over cross-border energy issues and responsibility for evolving common standards and a common tariff policy. At that time, member states opposed to this idea and claimed that it would only add to the unnecessary euro-bureaucracy (Talus 2007).

With the positive experiences with EU-level cooperation initiatives like the European Regulators' Group for Electricity and Gas or the Regulatory Forums for electricity (Florence) and gas (Madrid), the Commission decided to revisit the plans for an EU-level institution in the context of the third legislative package. After considering various options, the Commission proposed a new EU-level Agency. While the Agency was initially supposed to have significant powers to act in various situations, Council only agreed to a small number of the powers proposed by the Commission and the European Parliament. The expansion of the Agency's powers proposed by the European Parliament was not retained in the common position. Its role was reduced to a largely advisory role. However, it did retain limited decision-making power in terms of new cross-border infrastructure. The Agency will also have a role in the drafting of investment plans, the technical and market codes and so on. The first codes are already being drafted and relate to capacity allocation. The decisions made in this context will have a major impact on long-term capacity reservation contracts and, by default, on long-term commodity contracts (Hauteclocque and Talus 2011).

8. Preliminary remarks

The regulatory measures taken over the course of two decades have fundamentally changed the way in which EU natural gas markets are regulated. The progressive introduction of TPA and unbundling requirements coupled with an effective regulatory oversight and supervision at both the national and EU level has changed the traditional vertically integrated industry structure to a market structure where competition is possible. While these changes have created the preconditions for a more competitive market structure, they failed to create competition. This is partly due to shortcomings in the regulatory scheme but also due to factors such as conflicting national interests, the efforts of the incumbents to protect their markets and the traditional mindset of the industry.

Some of these shortcomings have been rectified through strategic application of competition laws. This issue will now be examined.

9. Antitrust enforcement pushing for change

As was mentioned above, the efforts on the regulatory front have been supported by Commission efforts to create a competitive market structure through the strategic application of EU competition law. After an era where the cases relating to energy markets would mainly arrive before the Commission through merger notification or complaints, in the post-2000 period there has been a clear shift towards a more focused era in which the Commission has made planned and well-directed efforts to rectify specific problems within natural gas markets. Starting from politically less-sensitive cases in the downstream natural gas markets, it initiated a competition law driven change in the traditional market structures. Here, cases like *Gas Natural*, *Distrigaz* and *E.ON Ruhrgas* or *Repsol* were particularly significant (Hauteclocque 2008). Through the guidance provided by these cases it became clear that long-term contracts in the downstream sector were largely seen as anticompetitive and therefore forbidden. This was particularly clear in the *Distrigaz* case. Here, in connection with a Commission investigation pursuant to Article 102 TFEU into Distrigaz gas supply activities in Belgium, the preliminary assessment showed that the company had a dominant market position in the market for supply of gas to large customers in Belgium. As a customer usually has only one gas supplier at a time, competition for new customers only occurs when a new agreement is concluded. In this situation, the use of long-term contracts limits the scope for competition, resulting in foreclosure of the market. In particular, the combined effect of long-term contracts employed in the markets would have this effect (MEMO/07/407).

Simultaneously with these downstream contract cases, the Commission made progress with another line of cases relating to upstream contracts. Here, the Commission initiated a dialogue with the parties to upstream contracts, demanding the elimination of destination clauses, use restrictions and profit-sharing clauses traditionally used in long-term gas supply contracts (Nyssen and Osborne 2005). As these clauses restrict the freedom of the buyer to resell the purchased gas volumes and create artificial barriers to markets, they compartmentalise the market and are seen as damaging and anticompetitive provisions undermining the creation of a pan-European energy market. In cases like *Gazprom/ENI*, *Gazprom/OMV* or *Statoil/Norsk Hydro*, the Commission negotiated the

elimination of these clauses from the traditional long-term upstream contracts. While this line of cases improved the competitive conditions in EU natural gas markets by allowing for resale of natural gas beyond a restricted area, it also affected the balance of risk between the seller and the buyer.

After this initial contracts-related case law, the Commission efforts moved to access-related problems in the gas markets. Through cases like *GDF Suez*, *E.ON* (gas) that targeted the supply arm of the vertically integrated companies, and cases like *E.ON* (electricity) and *RWE* that targeted the transmission system operator arm of the vertical structure, the Commission made a focused effort towards opening up transportation capacity and alleviating capacity-related foreclosure. In essence, this body of cases suggest that there are certain limits on the extent that dominant companies can reserve infrastructure capacity on a long-term basis regardless of the usage of that capacity (Cardoso et al. 2010). In both *GDF Suez* and *E.ON* (gas), the dominant company was required to release immediately a significant share of its long-term reservations of gas transportation capacity at key sections of the pipelines in favour of third parties and to continue to reduce their share of these reservations to below 50% calculated from the total firm long-term capacity reservations for each year.

The changes that have resulted from the enforcement of the EU competition law have a significant effect on long-term upstream contracts. First, the elimination of destination clauses has an impact on the balance of risks that was sought in the traditional long-term contracts. By allowing gas-to-gas competition and re-exports of the gas, the elimination of these clauses also makes price differentiation and net-back pricing difficult. Applied to downstream contracts, they also affect the market position of the EU seller who is now exposed to increasing competition from its own customers that are able to sell on the volumes that they do not need, but have to take because of a take-or-pay clause. Second, by restricting the use of long-term contracts in the downstream markets, the importer is placed in a very different position: where it previously would sign take-or-pay contracts with the external producers and then mirror the volumes of these contracts with downstream take-or-pay contracts with its own customers, such as re-sellers or large industrial users, this is no longer possible. The importer is faced with a situation where it has significant take-or-pay commitments but no certainty that it can dispose these volumes in its traditional markets. The mandatory capacity releases imposed on the back of competition law have limited the ability of the dominant company to import the

total volumes of gas it might have contracted for. The 50% capacity cap imposed on the national incumbents restricts the import capabilities of these companies and should therefore favour new competition. It also complicates the use of very large volume import contracts as the ability of the national company to import these volumes is restricted.

10. Conclusion

There are several factors that have led to changing behaviour in EU natural gas industry. These include the rapid and fundamental changes to world LNG markets following the combination of decrease in natural gas demand due to a global recession and the closure of US markets due to the emergence of large volumes of unconventional gas. These two changes clearly acted as catalysts for change. However, there is also an important regulatory dimension to this change. The paradigm shift in energy governance change – from state to market, from plan to contract, from monopoly to competition and from national to international – has profoundly changed the way in which EU natural gas markets are regulated. As has been seen, the introduction of third-party access along with ownership unbundling, through both regulatory changes and antitrust enforcement, has combined with elimination of destination clauses and other historical elements of the market structure to completely transform the regulatory context in which natural gas contracts operate. Following the changes in the market conditions, the need for re-thinking certain key elements of the traditional long-term contracts emerged. After two decades of continuous regulatory changes, markets have finally started to embrace the changes and the opportunities the new regulatory framework can provide.

Developing a proper understanding of the dynamics of energy governance is not a simple task. This chapter appears to suggest the obvious: that an attempt to create change through legislation has significant limits. However, these transitions in the gas industry might also generate a substantial risk to the security of energy supply. This is particularly so in a situation where some of the main players in the markets, the external producers, follow a different logic and different rules than other market actors.

To be successful, the markets and the industry have to embrace these changes. In natural gas markets, it is not obvious that this will be the case. Despite the recent developments in long-term contracting and oil price indexation, the logic of the industry does not seem to be aligned with the logic of the regulators. An administratively led liberalisation

carries a substantial risk of 'getting it wrong'. For example, regulatory or administrative measures affecting the agreed division of risks between producers and importers may have unintended effects on future investments. What the EU or the European Commission considers to be an optimal regulatory set-up for the EU natural gas markets might not be so in practice. The EU natural gas markets are now in motion, but the end-result is still marked by uncertainty.

Bibliography

Literature

Bloomberg (2010) http://www.bloomberg.com/news/2010-10-04/algeria-rejects-spot-natural-gas-prices-as-buyers-change-orders.html. (Accessed 14.11.2011).

Cardoso, R., S. Kijewski, O.Koch, P. Lindberg and K. Nagy (2010) "The Commission's GDF and E.ON Gas Decisions Concerning Long-term Capacity Bookings: Use of Own Infrastructure as Possible Abuse Under Article 102 TFEU", *Competition Policy News Letter,* 3, pp. 8–11.

Delvaux, B. (2011) *EU Law and the Development of a Sustainable, Competitive and Secure Energy Policy – Opportunities and Shortcomings*, Dissertation submitted to the faculty of law, Collegium Falconis, University of K.U.Leuven.

De Hauteclocque, A. (2008) "EC Antitrust Enforcement in the Aftermath of the Energy Sector Inquiry: A Focus on Long-Term Supply Contracts in Electricity and Gas", in B. Delvaux, M. Hunt and K. Talus (eds), *EU Energy Law and Policy Issues* (Brussels: Euroconfidentiel).

De Hauteclocque, A. and K. Talus (2011) "Capacity to Compete: Recent Trends in Access Regimes in Electricity and Natural Gas Networks", *EUI working paper* RSCAS 2011/09.

Energy Charter Secretariat (ECT) (2007) *Putting a Price on Energy – International Pricing Mechanisms for Oil and Gas*.

Eurogas (2011) Natural Gas Consumption in the EU27 and Switzerland in 2010, 7 March, http://www.eurogas.org/uploaded/11P192%20-%20Press%20release%20on%20Evolution%20of%20Gas%20Consumption%202010.pdf. (Accessed 14.11.2011).

Goldberg, S. and H. Bjornebye (2011) "The Third Energy Package and the European Union: Introduction and Comment", in B. Delvaux, M. Hunt and K. Talus (eds), *EU Energy Law and Policy Issues* (Cambridge: Intersentia).

International Energy Agency (IEA) (2010) World Energy Outlook 2010.

Konoplyanik, A. (2004) "Stiff Competition Ahead – As Russia Moots Ways to Increase Presence on European Gas Market", *OGEL*, 2 (1).

Nyssen, H. and I. Osborne (2005) "Profit Splitting Mechanism in a Liberalised Gas Market: The Devil Lies in the Detail", *Competition Policy Newsletter*, 1, 25–30.

Petrash, J. (2006) "Long-term Natural Gas Contracts: Dead, Dying or Merely Resting?", *Energy Law Journal*, 27 (2), pp. 545–82.

Pielow, J.-C., G. Brunekreeft and E. Ehlers (2009) "Legal and Economic Aspects of Ownership Unbundling in the EU", *Journal of World Energy Law and Business*, 2 (2), pp. 96–116.

Roggenkamp, M. et al. (eds) (2008) *Energy Law in Europe* (Oxford: OUP).
Shtilkind, T.I. (2005) "Energy Charter Treaty: A Critical Russian Perspective", *TDM*, 2 (3).
Smith, E., J. Dzienkowski, O. Anderson, J. Lowe, B. Kramer and J. Weaver (2010) *International Petroleum Transactions* (Colorado: Rocky Mountain Mineral Law Foundation).
Stern, J. (2007) *Is There a Rationale for the Continuing Link to Oil Product Prices in Continental European Long Term Contracts?* (NG 19, OIES).
Stern, J. (2009) *Future Gas Production in Russia: Is the Concern about Lack of Investment Justified?* (NG 34, OIES).
Stern, J. and H. Rogers (2011) *The Transition to Hub-Based Gas Pricing in Continental Europe* (NG 49, OIES).
Talus, K. (2007) "Does EU Need an Energy Regulator?", *Energy & Environment*, 18 (2), pp. 283–87.
Talus, K. (2010a) "Long-term Natural Gas Contracts and Antitrust Law in the European Union and the United States", *AIPN Research Paper 2010*, Research paper series of the Association of International Petroleum Negotiators (AIPN).
Talus, K. (2011) *Vertical Natural Gas Transportation Capacity, Upstream Commodity Contracts and EU Competition Law* (Alphen aan den Rijn: Kluwer Law International).
Talus, K. and A. Johnston (2009) "Comment on Pielow, Brunekreeft & Ehlers on 'Ownership Unbundling' ", *Journal of World Energy Law and Business*, 2 (2), pp. 149–54.
Talus, K. et al. (2010) *Energy Law of Finland* (Alphen aan den Rijn: Kluwer Law International).

Legislation and EU documents

Antitrust: Commission increases competition in the Belgian gas market – frequently asked questions' (MEMO/07/407), 11 October 2007.
Directive 98/30/EC of the European Parliament and of the Council of 22 June 1998 concerning common rules for the internal market in natural gas OJ L 204, 21.7.1998, pp. 1–12.
Directive 2003/55/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in natural gas and repealing Directive 98/30/EC, OJ L 176, 15.7.2003, pp. 57–78.
Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in natural gas and repealing Directive 2003/55/EC, OJ L 211, 14.8.2009, pp. 94–136.
Inquiry pursuant to Article 17 of Regulation (EC) No 1/2003 into the European gas and electricity sectors (Final Report) COM(2006) 851 final.
Regulation No. 1775/2005/EC of the European Parliament and of the Council of 28 September 2005 on conditions for access to the natural gas transmission networks, OJ L 289, 3.11.2005, pp. 1–13.
Regulation (EC) No 715/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the natural gas transmission networks and repealing Regulation (EC) No 1775/2005, OJ L 211, 14.8.2009, pp. 36–54.

The Internal Energy Market. Commission Working Document (COM (88) 238 final), 2 May 1988.

Commission decisions

COMP/37.542 – Gas Natural + Endesa.
COMP/B-1/37966 – Distrigaz.
COMP/B-1/38348 – REPSOL C.C.P.
COMP/37.811 – Territorial Restrictions (1) Algerian gas export contracts (2) Expansion of TAG pipeline.
COMP/38.085 – PO/Territorial restrictions – Austria.
COMP/36.072 – GFU – Norwegian Gas Negotiation Committee.
COMP/B-1/39.316 – Gaz de France (gas market foreclosure).
COMP/39.317 – E.ON gas foreclosure.
COMP/39.388 – German Electricity Wholesale Market.
COMP/39.389 – German Electricity Balancing Market.
COMP/39.402 – RWE Gas Foreclosure.

12

Governments, Policies and Companies: A Business Perspective

David Elmes

1. Introduction

The governance of energy has always needed to consider what balance and relationship there needs to be between governments and businesses. Should governments take a direct role in their domestic industry through state ownership or rely on privately held companies and the efficiency of international markets? Should governments set policies for the supply and consumption of energy or leave it to the process of companies and consumers operating in competitive markets? In nations where energy companies are state-owned enterprises, the links are strong and direct. Where the energy industry is privately owned, governments exert control and influence through the way companies are licensed or regulated. Previous chapters have discussed how neoliberal political approaches adopted in some countries and encouraged in others by global institutions have led to a pro-market approach to energy issues. In energy terms, the period of the steady economic growth from the mid-1980s to mid-2000s known as the 'great moderation' coincided with a period where energy supply increased without a major increase in cost per unit ($/barrel in real terms, for example).

A longer, historical view shows that the balance and relationship has been more dynamic with swings to greater government control occurring in periods of crisis or challenging circumstances. An example of this was described by the former UK Energy Minister (Miliband 2008): a British Ministry of Fuel and Power was set up in 1942 when energy was crucial during the war but then abolished in 1969. The Department of Energy was re-established in 1974 after the OPEC price shocks and abolished in 1992 after extensive privatisation. The Department of Energy & Climate Change was created in October 2008 to address the three,

interlinked challenges of sustainability, security and affordability. The most recent reincarnation of an energy ministry reflected 'a more appropriate vision for energy policy today is to see dynamic markets combined with a strategic role for government'.

A concern that current challenges, especially climate change, needed a revision of the working structures between companies and governments was also voiced by the business community at the same time in an article by Jeroen Van Der Veer, when he was Shell's CEO:

> Systemic changes are needed in order to promote effective action to tackle carbon dioxide emissions. Society needs more energy as much as it needs better ways to reduce the negative environmental effects of its production and use. Governments have a crucial role in ensuring that consumers and industry respond effectively. In order for market forces to work we (paradoxically) need more regulations. Governments must urgently provide the rules that can foster lower carbon dioxide emissions. These regulations must encourage both investment in new technologies and energy conservation.
>
> (Van Der Veer 2007)

However, a willingness to tackle issues together comes with a caveat from companies and the financial institutions that provide capital to the industry. The long-term and large-scale nature of many investments in the energy industry means that changes in policy need 'transparency, longevity and certainty/consistency' (Fulton 2011).

The tension between political aspirations of governments and the commercial objectives of the industry is the focus of this chapter but not in the sense of conflict that energy governance is sometimes portrayed. There will inevitably be some points of disagreement between governments, competing strategies between companies and tensions between government and companies at national and international levels. However, we take the perspective that business and government have a sense of the long-term challenges, opportunities, policies and investments needed but what is complex is seeing how this might evolve, where different policy paths might lead and what actions companies might take.

This chapter has explored these questions through asking managers working in the energy industry to consider the strategic decisions that firms might make if the future were to follow a series of scenarios. The starting point is an overall view of future energy supply and demand prepared from industry, government and international agency sources.

The aim of this initial overview is to establish the starting point today and highlight common themes that feature in the scenarios considered later on, even if the individual scenarios address each theme to a greater or lesser degree.

The research discussed in this chapter focuses on the strategic decisions that companies make, and how scenarios are used as one way to support effective decision making. The next section briefly reviews the concepts and models seen as underpinning how companies take strategic decisions and how established approaches have evolved to consider increasingly dynamic markets.

In the next stage, managers working in the energy industry each studied one company and considered the strategic decisions it might make if the future followed a number of different scenarios that have been prepared for use in scenario planning. The scenario sets and individual scenarios are described. A total of 44 companies across the energy industry were studied, with wide coverage of the sectors and geographies within the industry. Further details are discussed later in the chapter. Studying several, contrasting scenarios required the managers to consider different alternatives and not just what their company might prefer. Finally, common observations across the companies and scenarios are discussed to highlight challenges, opportunities and illustrate the uncertainties that companies face. This is then summarised in a view of energy governance that seeks to combine the perspectives of businesses and governments.

2. Initial overview: A business view of current and future energy requirements

The initial stage of this work was to prepare an overall view of energy supply and consumption drawn from industry, government and international agency sources. While the individual forecasts from which this is prepared may vary, the aim is to draw out common themes that set the context for subsequent consideration of future decisions by companies.

2.1 Energy use is expected to grow faster than population growth

World population is forecast to grow at an average of 0.9% per annum over 2008–35 from 6.7 to 8.5 Billion and energy consumption is forecast to grow at an average of 1.2% per annum (IEA 2010). There is naturally a slight variation between the forecasts made by different agencies, companies and institutions, and the forecasts vary over the years. However,

the consistent trend is that growth in energy use is expected to outpace population growth as countries progress into more energy-intensive stages of economic growth.

2.2 World energy supply will be from a mixture of sources long into the future

While individual countries will take decisions to change or focus the energy sources they use, global demand will be served by a mixture of fossil and renewable sources of energy for some considerable time. This is illustrated in Figure 12.1 with a view from the International Energy Agency where they compare 2008 energy use with three future policy scenarios: a Current Policies Scenario which considers policies in place by mid-2010, a New Policies Scenario that includes policy commitments made by that date and a 450 Scenario that assumes policies are enacted to keep increases in global temperatures within a 2°C limit.

2.3 Transitions in energy use take time

Historical studies over centuries (e.g. Fouquet 2008, 2010; Fouquet and Pearson 2003) as well as studies just considering recent decades (Kramer and Haigh 2009) have shown that transitions in the types of energy we use take time. It takes around three decades for a new source or form of energy to achieve widespread use from its early adoption in the marketplace. The time from initial scientific research is significantly greater. Those three decades involve exponential growth at rates of 20–30% per annum. This can be a significant challenge when it involves the large,

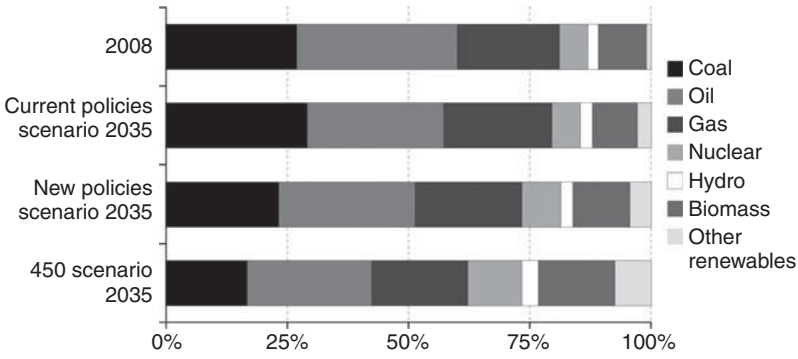


Figure 12.1 Share of energy sources in world primary energy demand by scenario (IEA 2010)
Data Source: WEO © OECD/IEA, 2010.

long-term capital investments which are common across the energy industry.

2.4 Countries develop different patterns and levels of energy use

As countries pass through stages of economic growth, energy use per capita initially increases with rising gross domestic product (GDP) per capita. At a point where countries typically make a transition from a manufacturing focus to a mix with services, the energy use per capita 'levels off' or at least energy use per capita increases less with further rises in GDP, see Figure 12.2. What one sees is that developed economies end up with quite different levels of energy use per capita. The reasons why countries plateau at different levels include climate, size, levels and patterns of urbanisation, energy self-sufficiency, industrial activity, patterns of personal energy use such as transport and so on (Smil 2005). Influencing how energy use rises with growing economic prosperity and how countries can change their plateau or level off using less energy is a challenge but also generates opportunities for companies and governments. Russia offers a particularly interesting case as the transition from the Soviet era initially led to a decline in both GDP per capita and energy use per capita. This has reversed over the last decade

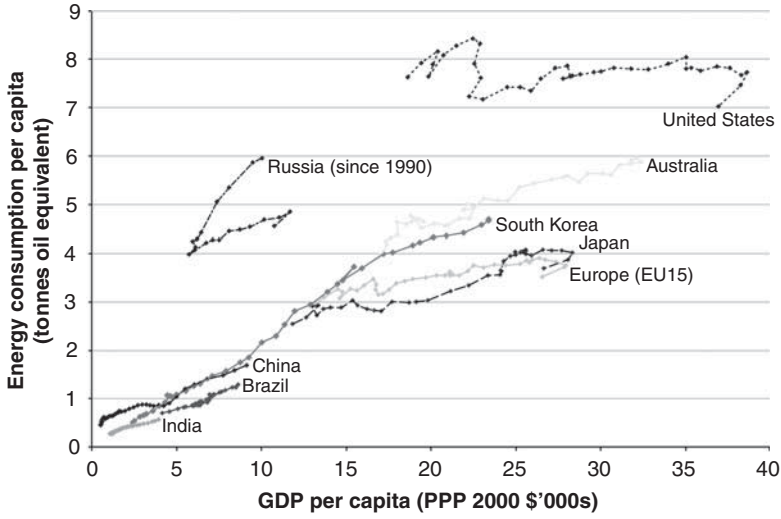


Figure 12.2 Energy consumption per capita versus GDP per capita for various countries over 1971–2009

Data Source: World Energy Balances © OECD/IEA, 2011.

but on a path of much higher energy use when compared with other countries.

2.5 The current use of energy is not very efficient

A global look at how the primary sources of energy are used or converted into other forms then used (e.g. gas or coal into electricity) is shown in Figure 12.3. This offers two observations. Firstly that as much energy is wasted as is used. Secondly that, broadly speaking, the majority of oil is used in transportation while other sources provide, or are used to generate, electric power. The first point means that energy efficiency opportunities can have similar significance to the development of alternative sources of energy. Secondly, future use of oil is a question of transport choices. The historical emphasis on oil's role as the primary factor in global energy governance may need revising to a broader view of fossil sources, renewable sources and energy efficiency actions. The ability of countries to develop or use the various alternatives for power generation, electric vehicles, biofuels, gas to liquids and so on will all contribute to transport solutions over time.

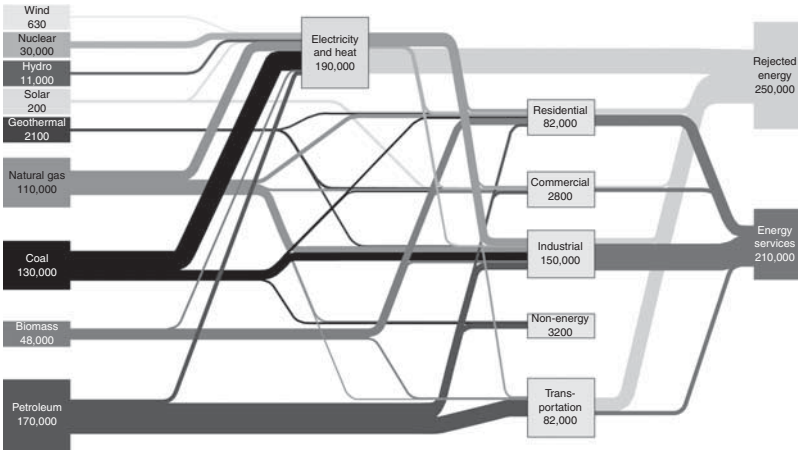


Figure 12.3 World energy use in 2007 from primary sources to consumption in PJ, including losses (Smith 2011)
Data Source: Lawrence Livermore National Laboratory/US Department of Energy.

2.6 The "developing" stage of economic growth usually includes government involvement in the energy sector

The economic development of countries is often described as a progression through emerging and developing phases to the status of a developed economy, typified by countries in the OECD. The developing phase is usually enabled by export-led growth (recently summarised by Rajan 2010). Rajan's summary describes how governments take action to encourage exporting sectors, and our comment is that such exports typically involve or use energy. Therefore one can expect a significant role for governments in the energy governance of developing economies. This can be at odds with proposals to open up or liberalise the energy sector which may achieve efficiencies but reduce the abilities of governments to ensure the energy that export-led growth normally requires.

2.7 The investment needed to meet future energy needs is considerable

The IEA estimate that the investment to meet the world's energy needs over the next 25 years is $32.8 trillion in 2009 dollars, spent over 2010–35(IEA 2010). The sum is more to meet low carbon ambitions and involves a transformation of the power generation industry. This level of investment is significantly greater than in past decades representing considerable growth in developing economies as well as a transition to cleaner or renewable supplies in developed economies. To emphasise the scale of the former, non-OECD countries account for 93% of increasing energy demand in the IEA's New Policies Scenario, requiring almost two-thirds of the investment.

The themes above suggest an energy industry facing a transformation, rather than evolutionary growth. With this overview in mind, the managers involved were asked to consider future decisions their chosen companies might make with three perspectives in mind. Firstly, their company's position in an industry where developing and providing energy is becoming more difficult, both from traditional or alternative sources. Secondly, the future is one where the roles for companies, governments and other institutions involved across the world will continue to change. Thirdly that climate change, energy security and the dependencies between energy, water and food set a challenging new framework for the industry that is likely to have increasing influence on the decisions that companies make. These perspectives will

be influenced by individual and company views regarding their importance. The reason for involving managers working within the energy industry in this exercise was so that the decisions proposed reflected both an analysis of the individual companies and the experience of managers involved.

As this chapter focuses on the strategic decisions that companies might make, the next section reviews how concepts of strategic decision making have evolved in general and how that applies to the energy industry.

3. Strategic decision making

A classic definition of strategy is:

> . . . the determination of the basic long term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals . . . .
>
> Chandler (1962)

This definition stems from Chandler's work on the development of large-scale enterprises in the American economy. It emphasises a sense of direction, a plan of action and a sense of an organisation being led towards its goal (McGee et al. 2010). What it does not comment on are the issues of risk and uncertainty as well as the complexities of governance when a company operates as an essential and significant part of an economy or the global economy, such as is the case with many companies in the energy industry.

The position or market-based view of strategic decisions advocated by Porter (1980, 1985) proposed that strategic decisions for a company be made through an analysis of its market. This assessment identifies what a company needs to do to achieve and defend the competitive advantage of its chosen position in the market. Porter's initial, free market perspective was later expanded to include governments and other stakeholders as forces influencing the decisions firms can make.

The resource-based view of strategic decision-making sees a company as a collection of resources and capabilities (Barney 1991 and others). Certain distinctive resources and capabilities underpin a company's competitive advantage, referred to as core competencies by Prahalad and Hamel (1990). Competitive advantage is sustained through the combination and coordination of resources so that there is a dynamic

fit between the capabilities of the firm and the evolving needs of the market (Winter 2003).

More than two decades of steady growth in the demand for energy from the 1980s onwards were met by adequate increases in supply so that prices were steady in real terms. Many decisions in the energy industry involve major capital investments of millions or even billions of dollars. Projects take years to develop or build and so are expected to provide subsequent returns over decades. This led to the energy industry having a reputation of one where strategic decisions relied on some certainty in the position that companies can occupy while the consideration of resources underpinned a process of steady industry evolution.

While the concepts of competitive strategy discussed above were a sound foundation, more dynamic forces were seen to be at work in other industries. Hypercompetition (D'Aveni 1994) combined entrepreneurialism with previous theories of creative destruction (Schumpeter 1975), arguing that competitive advantage was continually created, eroded, destroyed and recreated through strategic manoeuvring. Blue ocean strategy (Kim and Mauborgne 2005) advocated finding new market spaces where the rules of the game had yet to be set, offering opportunities for growth without the challenges of the existing, market-based competition. Concepts of disruptive technologies (Christenson 1997) and revolutionary innovators (Hamel 2000) discussed the importance of innovation that cannibalises existing activities but opens the pathway to emerging mass markets. More recent thinking reflects the growing attention paid to social patterns and behavioural science with concepts such as black swans (Taleb 2007), tipping points (Gladwell 2000) and nudging (Thaler and Sunstein 2008).

Strategic decision making in companies involves decisions of scale and importance, risk, uncertainty, complexity, resources within and outside the company, actions that take time and are largely irreversible and the need to steer the company through significant changes (McGee et al. 2010). The overview provided in the previous section suggests the energy industry faces a period of more dynamic change than in recent decades. In changing rapidly from past patterns and levels of energy use, governments also want companies to play a role in implementing policy objectives that do not always have strong, clear price incentives. This is increasing the interdependence between the roles of government and business in energy governance, whether in market economies or in countries who choose an approach of managed capitalism.

For companies operating in dynamic markets but faced with strategic decisions that are costly and take time to realise, scenario planning is

one approach used to aid management. The next section explains its use as a tool to assess opportunities and challenges ahead.

4. The use of scenarios in strategic decision making

Scenario planning is one approach that companies and organisations can use to support strategic decision making and is one of a range of tools discussed by Courtney et al. (2000). In their review the authors advocate the need for approaches that incorporate uncertainties:

> At the heart of the traditional approach to strategy lies the assumption that executives, by applying a set of powerful analytic tools, can predict the future of any business accurately enough to choose a clear strategic direction for it. When the future is truly uncertain, this approach is at best marginally helpful and at worst downright dangerous: underestimating uncertainty can lead to strategies that neither defend a company against the threats nor take advantage of the opportunities that higher levels of uncertainty provide.
>
> (Courtney et al. 2000)

They describe a progression of approaches that increasingly incorporate uncertainty from forecasts through decision trees to scenarios. In this work, we have made use of several sets of scenarios developed by various organisations. 'Scenarios are descriptions of journeys to possible futures. They reflect different assumptions about how current trends will unfold, how critical uncertainties will play out and what new factors will come into play' (UNEP 2002). They are best seen as images of the future, or alternative futures, not predictions or forecasts. Insight that leads to more informed decision making is the foremost goal of scenarios, not the words and numbers that make up any individual scenario or scenario set. For that reason, an individual scenario is not expected to be 'right'. This view of scenario development is the approach adopted in this chapter though it is worth noting that some companies or organisations developing and using scenarios veer towards seeing them as forecasts, discussing 'preferred" scenarios and comparing them with 'baseline' scenarios.

Scenario development is appropriate for companies in capital intensive industries such as energy and pharmaceuticals, when planning timescales reach beyond the near term business and economic environment and where organisations are concerned about being able to react quickly and effectively as changing events occur. In the energy industry,

they have been notably used by companies such as Shell (Shell 2003), by agencies such as the IEA (IEA 2010) and by industry bodies such as the World Energy Council (see WEC 2010).

5. Scenario sets applied to the future of the energy industry

Our aim in this work was to assess the impact of future scenarios on companies in the energy industry and so its governance. To achieve this, we selected three sets of scenarios prepared by different organisations and asked managers working in the energy sector to assess the impact of one set of scenarios on a company within the industry of their choosing. The emphasis was not on whether a scenario was "good" or "bad" for the company but what strategic decisions the firm might make to exploit or react to the path into the future that each scenario represented. The scenario sets chosen not only contained a range of forecasts regarding the different supply and use of energy but also contrasted possible political, social and behavioural trends in how energy is supplied and consumed.

Through this approach, the work differs from other studies in two ways. Firstly, its focus is on the impact the scenarios might have on the future strategic decisions the firms might take. It is more common to see a discussion of how scenarios have been developed, or a critique of their assumptions or conclusions. While assessing impact on a company has always been part of scenario planning, the discussion is often held within a company and not reviewed across companies as here. Secondly, the evaluation has been carried out by managers currently working in firms across the energy sector, each evaluating a company in the sector that was not their own. They worked individually and collectively to assess the opportunities and challenges faced by the industry overall, by sectors of similar companies within the industry and by their selected firms. Information on current and near term strategies was gathered from publically available sources, without the use of confidential information. As the scenarios stretched several decades into the future, the focus was on medium- and long-term strategic pathways rather than near term decisions.

The scenario sets were selected to represent the perspectives of a major energy company, a government and a non-profit organisation focused on sustainable development:

- The Shell Energy Scenarios to 2050
- The UK Foresight's Powering our Lives Scenarios
- The Forum for the Future's Climate Futures Scenarios

The rest of this section discusses each set and the scenarios it contains in more detail.

5.1 The Shell Energy Scenarios to 2050

Shell is a major, global energy company with a long history of using scenarios to aid their planning and decision making. Their most recent set of scenarios was published in 2008 and contained two scenarios termed Scramble and Blueprints (Shell 2008). The company introduced them with the statement that 'Never before has humanity faced such a challenging outlook for energy and the planet. This can be summed up in five words: more energy, less carbon dioxide.' The two scenarios contrast different levels of cooperation, coordination and early action to address the challenge of increased energy supply but with lower emissions. In a break from its usual approach of not expressing a preference for one scenario over the other, the company expressed the view that the Blueprints scenario offered 'the best hope for a sustainable future'. Both scenarios seek to reach a similar goal but via a different path:

Scramble: Policymakers pay little attention to more efficient energy use until supplies are tight. Likewise, greenhouse gas emissions are not seriously addressed until there are major climate shocks.

Blueprints: Growing local actions begin to address the challenges of economic development, energy security and environmental pollution. A price is applied to a critical mass of emissions giving a huge stimulus to the development of clean energy technologies, such as carbon dioxide capture and storage, and energy efficiency measures. The result is far lower carbon dioxide emissions.

5.2 The UK Foresight's Powering our Lives Scenarios

The UK Government's Foresight programme aims to help government think systematically about the future, helping to improve how science and technology are used within government and society. The Powering our Lives project which concluded in 2008 focused on sustainable energy management and the built environment (Foresight 2008). It developed four scenarios exploring how the UK built environment could evolve over the next five decades in a transition to 'secure, sustainable, low carbon energy systems that meet the needs of society, the requirements of the economy, and the expectations of individuals'. The scenarios took a 2×2 quadrant approach, contrasting high and low levels of technology innovation and collaboration. While this led to four different outcomes, they all represented an acceptable solution but

different ways to achieve it. Although prepared by considering the UK, in this work their different directions and general outcomes were considered as applicable to most developed country economies where the companies studied might operate.

Resourceful Regions: This is a world in which political trust has diminished on a world scale, although bilateral trade continues. Most UK energy comes from fossil fuels with innovation being focused on the optimisation of existing systems. These are used more efficiently than in the past, but the focus is more on energy security and the cost of fuel. English sub-regions have a high degree of autonomy, matching Scotland and Wales. In situations of resource scarcity, regional trade in fuel carries considerable leverage. Some regions do deals with overseas countries on energy supplies. Nuclear power still plays a role but many regions have also invested in appropriate renewable technologies. In the built environment, retrofitting rather than new build is the preferred approach. New buildings are increasingly built in a local vernacular style, and there is urban green space to tackle overheating. Living conditions vary widely as regions have their own economic structures and differing levels of economic success. Most regional governments support public transport.

Sunshine State: International solidarity has fallen by the wayside in response to climate change and expensive energy. There is an emphasis on localism to respond to energy problems. Energy efficiency measures are universal. Retrofitting is sometimes done alongside adaptation work to help buildings cope with warmer and wetter conditions. Green roofs and parks are common to counter flooding. New build commonly uses offsite construction methods, often from overseas. People are active energy users and know about the energy use of everything they own. Many belong to local 'time banks' (where people use their time, rather than currency, as a form of transaction) or use local currencies. Innovation has led not only to the introduction of novel technologies but also new organisations, ideas and approaches. There has been considerable expansion of renewables including solar energy and biomass.

Green Growth: In this world, fossil fuel depletion and climate change are serious concerns. Novel technologies and systems are regarded as the way to deal with them. Social values emphasise universalism and benevolence. There is an emphasis on decoupling economic growth from carbon emissions and a substantial carbon tax to drive change. By 2050, the building industry reflects these developments and there are now many highly energy-efficient new houses and other buildings and less emphasis on retrofitting old property. People take responsibility for

their energy use. Most energy comes from renewable sources including big projects such as the Severn Barrage, offshore wind farms and solar energy farms in Africa. There is some local renewable energy, including energy-from-waste schemes, partly to offset the inherent instability of electricity supplies transmitted across thousands of kilometres.

Carbon Creativity: Decarbonisation is a major theme in this world, prompted by a carbon market in which all goods and services carry a carbon price. There has been considerable investment in Carbon Capture and Storage. Renewables are small in scale and volume and little renewable power is connected to the grid. There has been a boom in carbon consultancy, in which there are EU-recognised qualifications and London is the centre of world carbon trading. Europe also plays a major role in regulating energy markets. Energy costs and regulation have driven substantial retrofitting and renewal of the existing built stock, both domestic and commercial. High-density, mixed-use developments are popular because of their community feel as well as their energy efficiency and proximity to transport nodes. They feature optimisation of existing technology for capturing energy, especially from solar power, and for using it effectively, for example, advanced glazing.

5.3 The Forum for the Future's Climate Futures Scenarios

Forum for the Future is a non-profit organisation that works globally with business and government to create a sustainable future. The Climate Futures scenario set was developed in 2008 through a collaboration between Forum for the Future and HP labs (Forum for the Future 2008). The scenarios 'analyse the social, political, economic and psychological consequences of climate change and describe how different global responses could lead to five very different worlds by 2030'. The five scenarios represent a very divergent set of alternatives, often reaching more extreme conclusions than the other scenario sets:

Efficiency First: Rapid innovation in energy efficiency technologies has created a consumerist, low-carbon world. Yet society balances precariously on a fine point, with ever-increasing reliance on new innovations to mitigate continuing climate change. Massive desalination plants in the Middle East and North Africa soak up energy from the sun to irrigate the desert for resource production. Wilderness exists only in a few pockets of the world.

Service Transformation: High carbon prices have resulted in businesses rethinking their models and selling services rather than products. Individual car ownership is prohibitive but the public transport system

is highly efficient. Collective laundry services have replaced washing machines. A 'share with your neighbour' ethos exists, and global carbon emissions decline for the first year in history.

Redefining Progress: People are rethinking what it means to lead a fulfilling life. Meaningful jobs are valued and stronger links with local communities are cultivated. People are attracted to simplicity and focus much more on quality of life than on economic prosperity. Climate change is well understood and viewed as one part of unsustainable living.

Environmental War Economy: Governments have left it late to deal with climate change and have been forced to rationalise whole industry sectors and take control of many aspects of citizens' lives. They build dams and powerful sea wall defences to protect land from the raging oceans, yet growing numbers of environmental refugees must find new countries willing to accommodate them. Greenhouse gases are beginning to decline, but the cost to individual liberty has been great.

Protectionist World: The world is divided into protectionist blocs, and countries wage violent wars over scarce resources like water. Communities are divided and cyber-terrorists take advantage of the flux, paralysing communications networks and targeting collapsed states.

6. Applying the scenarios to companies across the energy industry

The 44 companies studied were selected from across the energy industry by the managers involved and represented all areas of the energy industry: oil and gas, coal, nuclear, renewable energies and power utilities. Companies studied were as follows (noting that some have subsequently merged or changed their name): Anadarko, Areva, BG Group, BP, Cairn Energy, Centrica, Chevron, Dong Energy, Duke Energy, EDF, EDP, ENI, Enel, E.ON, ExxonMobil, First Solar, Gamesa, Gazprom, GDF Suez, Hess, Iberdrola, National Grid, Nexen, Occidental Petroleum, Ormat Technologies, Peabody Energy, Pemex, Petrobras, PetroChina, Q-Cells, Reliance Industries Limited, RWE, Schlumberger, Shell, Sinopec, Statoil, Suntech Power, Suzlon, Tokyo Electric Power, Total, Unión Fenosa, Valero Energy, Vattenfall and Vestas.

The analysis of each was carried out in the period 2009–10. To ensure a comparable level of available information, all companies were fully or partially listed in markets across the globe. This limited the inclusion of some fully state-owned companies or privately held companies but their role in the industry was discussed during the research.

Managers completing each company assessment were participants in the Warwick Business School Global Energy MBA. The mean age of participants was 35 years with an average of 11 years experience in the energy sector. Twenty-seven nationalities were represented and their own company experience was evenly spread across sectors within the energy industry, as were their functional or general management roles in their companies. Each manager assessed the decisions their company might take using one set of scenarios that they chose. Scenario sets selected were Shell 39%, Forum for the Future 38% and Foresight 23%. Some companies were analysed more than once in the 2-year period with 64 analyses carried out in total.

7. Implications, opportunities and gaps

The wide-ranging and far-reaching nature of the scenarios meant that the strategic decisions proposed were broad in scope. Some pathways identified for the companies involved strengthening and expanding current activities, some the growth of and transition to new markets and some presented a challenging future where the role for the company was hard to see. This section summarises a series of common observations seen across the companies studied.

7.1 Sources of supply and markets for consumption

The reality of future growth in markets across the world. Patterns of future energy demand make it clear the investment in developing economies and this is not where some of the current, well-known companies have their focus.

The increasing importance of gas versus oil. A particular aspect has been the rise in unconventional gas production, especially in the US. This has shown how dynamic changes can occur in established markets, leading to changes in global patterns of supply, prices and views of energy security.

The business of less. Which will be the companies that will develop a successful business model for using less energy, especially with consumers? Pathways examined what brands people trust and considered the companies better at handling the information that will come from initiatives such as smart metering. Either sort of company could step in and own the customer relationship now held by the power companies.

The alternative of distributed energy. Certain scenarios challenged the global nature of energy supply and consumption, as well as the

centrally generated, locally distributed model of power generation. While recognising the challenge of cost, the scenarios evaluated alternatives for more local supply and consumption in both developed and developing economies.

The uncertainty around transport alternatives. What options win out for transportation represented considerable uncertainty for strategic decision making in many of the scenarios studied. Options include decarbonised electricity from renewables, fossil fuels with CCS, biofuels that do not compete with food, gas to liquids and so on. With electric vehicles, analysis of the scenarios discussed who might enjoy the trust of, and relationship with, the customers: the power company, the car company, the municipality and so on.

7.2 Providing the framework for progress

Volatility in policy making and regulatory frameworks. Optimism for a global climate deal in December 2009 was replaced by country-specific goals in the Copenhagen Accord. At national and regional levels, the pathways included continued uncertainty and adjustment in policies and incentives. However, most views indicated that the signals for business are clear and that business can respond but perhaps not at the rate required to achieve the desired goals.

The continued influence of social volatility. Some scenarios took paths leading to tension and conflict. This placed the international nature of many energy companies under strain, making it difficult to maintain the scale and scope of investments. Uncertainty over Iraq's recovery as a producer, the more recent instability in North Africa and unrest over power supplies, costs and outages in other countries all reinforced the ongoing risks for business operations and investments.

The value of being a national company or a national champion. In a period of transition, many scenarios highlighted the advantages of being part of or strongly linked to a government, challenging the free market model underpinning many strategies.

The challenge of 'transition fuels'. In scenarios seeking to meet more ambitious climate goals, there is a need for near term investment in capacity such as gas and coal that can only be in service for less that their usual lifetimes. Scenario responses struggled to manage the risk of stranded assets without government support.

7.3 Strategies in uncertain and volatile times

Risks of undifferentiated strategies. The financial crisis caused a hiatus in investment that stalled the 20–30% annual growth rates in

a number of renewable energy technologies. This exposed the vulnerability of companies with similar strategies, collectively riding the growth wave. It opened the door for low-cost competitors, shifted production from the US/EU to China/India and accelerated the typical process of industry evolution.

The opportunity for global power companies. Power generation and distribution companies have a heritage of working in national, regulated markets. Where international, it has been in similar markets across the US or EU. With the expansion of power in developing markets, one path evaluated was the emergence of large power companies able to manage risk through a global portfolio of Billion dollar projects and joint ventures, each with a greater risk/reward profile than seen within traditional regulatory frameworks.

Safety, the environment and the volatility of reputation. The Macondo well leak in the Gulf of Mexico occurred during the period of the study, and it was followed by leaks at the Fukushima power plant in Japan. All companies are now aware of how risks and incidents can influence the pace and direction of the industry's transition significantly.

The analyses offered many more decisions for the individual companies with creative suggestions for the paths each might take. Concerning the three perspectives that managers were asked to consider, the responses were in broad agreement. The challenges of developing and providing energy from traditional or alternative sources were seen as comparable in scale though different in nature. Accessing more fossil fuels in the long term faces maturing basins, the use of new technologies and the need to establish environmental credibility when operating in frontier regions or accessing new categories of resources. With renewable energies, the challenge is to maintain the rapid rates of growth needed to meet the ambitions of governments within the timescale desired. Regarding the changing roles for companies, governments and institutions, the patterns of economic growth across the globe make it clear where investments will occur and indicate a significant shift in industry focus. Government participation and intervention in both developing and developed countries was seen as inevitable to a degree with a debate between market-led approaches and managed capitalism. The final perspective was the extent to which climate change, energy security and the dependencies between energy, water and food set a challenging new framework for the industry. The complex interaction of these constraints with the increasing demand for energy was seen to

underpin ongoing volatility and uncertainty, making it more likely for old business models and industry structures to be destroyed than evolve.

8. Implications for governance

This study has considered the strategic decisions that firms across the energy industry might take in the future. The study has not focused only on companies based or operating in Russia or the EU due to the global nature of the industry. Its observations regarding governance can be summarised in three ways, and the rest of this section considers their implications both internationally and between the EU and Russia:

- State-led or market-driven
- Global or national/regional
- Traditional industry structure or something new.

The EU and Russia have differed in their preference for state-led or market-driven influence. For example, the EU's active programme of legislation in the power sector has increased market competition, emphasising price and choice. Russia has focused on the domestic rebuilding of its energy infrastructure with significant state influence on international involvement and exports, the latter primarily gas through Gazprom. The question now is how either approach will face up to the high growth, export led economies who are rapidly expanding their energy sectors. The latter have the investment power to both access foreign resources and build their new infrastructure in innovative ways using the latest technologies.

Comparing activities at regional and global levels, the historically global international oil and gas companies face the challenge of national oil companies now having the capabilities to internationalise, in some cases with state support through broader trade deals. The national, regulated nature of the power sector has limited international expansion somewhat in the past. The question is whether this national or regional focus will remain and include new players in the developing economies or whether truly international power companies will emerge, able to balance risk and reward across an international portfolio of projects and joint ventures.

As the industry structure changes, the companies involved will change roles or importance, or new entrants will gain significance. Parts of the renewable energy industry have emerged from the phase of high growth, technology focused companies often supported by venture

capital. Hastened by the recent financial crisis, the evolution to a focus on low cost manufacturing in developing economies has occurred very quickly, shifting market share from companies in the US and EU to new entrants in China. Looking ahead, the scenario work identified several paths that could lead to significant changes in industry structure and the companies involved. The question of who will own the consumer relationship around energy use. The more complex mix of transport alternatives where fossil fuels are joined by biofuels, electric vehicles and so on. As sectors such as power and oil & gas adopt new technologies, how equipment and service providers may increase their role and influence. Whether distributed energy becomes an affordable alternative in developed economies or emerging and developing economies leap-frog to a more distributed model with the different structure of companies this might involve. Each of these areas offers the potential for a significant change in the industry participants.

These themes represent a dynamic period of transition where energy governance is more challenging because the companies involved and what they do is likely to change whether through market forces or state guidance. Governance based on the supply and consumption of fossil fuels, historically focused on oil, will remain important. However, it is joined by significant alternatives and a focus on changing energy use.

9. Concluding comments

The aim of this chapter has been to consider the strategic decisions that companies in the energy sector might make if the future follows various scenarios over the next few decades. The initial overview presented a future of changing levels of demand across the world and a more complex mix of energy sources. Considerable investments will be needed to serve future demands for energy and support efforts to increase its efficient use. Given this level of change, a scenario- planning exercise has been carried out by managers working in the industry who have considered the future decisions that a wide range of companies across the industry might make. The focus on company decisions rather than evaluating the scenarios, the range of companies studied and the involvement of managers working in the industry provide a contrast to how scenario planning is often discussed in the open literature.

The scenarios studied take paths that are different, divergent and in some cases lead to futures very different from today. Applying them to the range of companies studied raises a series of themes and observations that reflect a more volatile and uncertain future for the industry.

This also makes governance more complex as risks rise, whether borne by companies or states depending on views as to whether the transition should be market driven or not. The importance and influence of the nations and regions involved will also change in line with patterns of energy use across the globe. Governance is likely to be further complicated as the roles of companies and structure of sectors within the industry change and there are also opportunities for new entrants who do not participate in the current governance structures.

Bibliography

Barney, J.B. (1991) "Firm Resources and Sustained Competitive Advantage", *Journal of Management*, 17, 1, pp. 99–120.

Chandler, A.P. (1962) Strategy and Structure: Chapters in the History of the American Enterprise. Cambridge, MA: MIT Press, p. 13.

Christenson, C. (1997) *The Innovator's Dilemma*. Boston: HBS Press.

Courtney, H.G., Kirkland, J., and Viguerie, S.P. (2000) "Strategy under Uncertainty", *McKinsey Quarterly*, June 2000, pp. 81–90.

D'Aveni, R.A. (1994) *Hypercompetition: Managing the Dynamics of Strategic Manoeuvring*. New York: Free Press.

Foresight (2008) "Powering Our Lives: Sustainable Energy Management and the Built Environment", The Government Office for Science, London, Available at: http://www.bis.gov.uk/foresight/our-work/projects/published-projects/sustainable-energy-management-and-the-built-environment, accessed 14/11/2011.

Forum for the Future (2008) "Climate Futures: Responses to climate change in 2030", Forum for the Future, London, Available at: http://www.forumforthefuture.org/project/climate-futures/overview, accessed 14/11/2011.

Fulton, T. (2011) "The Opportunity of Investing in Climate Change", IEA/RETD Seminar on "Renewable Energy – from Analysis to Action". Paris, March 2011, Available at: http://www.iea.org/work/workshopdetail.asp?WS_ID= 502, accessed 14/11/2011.

Fouquet, R. (2008) Heat, Power and Light: Revolutions in Energy Services. Cheltenham: Edward Elgar.

Fouquet, R. (2010) "The Slow Search for Solutions: Lessons from Historical Energy Transitions by Sector and Service", *Energy Policy*, 38, pp. 6586–96.

Fouquet, R. and Pearson, P.J.G. (2003) "Five Centuries of Energy Prices", *World Economics*, 4, 3, pp. 93–119.

Gladwell, M. (2000) *The Tipping Point*. New York: Little, Brown and Company.

Hamel, G. (2000) *Leading the Revolution*. Boston: Harvard Business School Press .

IEA (2010) World Energy Outlook 2010, IEA/OECD, Paris, ISBN: 978 92 64 08624 1, Available at: http://www.worldenergyoutlook.org/2010.asp, accessed 14/11/2011.

Kim, W.C. and Mauborgne, R. (2005) *Blue Ocean Strategy: How to Create Uncontested Market Space and Make the Competition Irrelevant.* Boston: Harvard Business School Press.

Kramer, G.J. and Haigh, M. (2009) "No Quick Switch to Low-carbon Energy", *Nature*, 462, pp. 568–69 (3 December 2009).
McGee, J., Wilson, D., and Thomas, H. (2010) *Strategy: Analysis and Practice*, 2nd Edition. Maidenhead: McGrawHill.
Miliband, E. (2008) "The Rise and Fall and Rise Again of a Department of Energy", Speech delivered at Imperial College, London on 9th December 2008, Available at: http://www3.imperial.ac.uk/pls/portallive/docs/1/54221696.PDF, accessed 14/11/2011.
Porter, M.E. (1980) *Competitive Strategy*. New York: Free Press.
Porter, M.E. (1985) *Competitive Advantage*. New York: Free Press.
Prahalad, C.K. and Hamel, G. (1990) "The Core Competence of the Corporation", *Harvard Business Review*, May–June, pp. 79–91.
Rajan, R.G. (2010) *Fault Lines: How Hidden Fractures Still Threaten the World Economy*. Princeton NJ: Princeton University Press.
Schumpeter, J. (1975) *Capitalism, Socialism and Democracy*. New York: Harper and Row.
Shell (2003) "Scenarios: An Explorer's Guide", published by Shell, Available at: http://www-static.shell.com/static/aboutshell/downloads/our_strategy/shell_global_scenarios/scenario_explorersguide.pdf, accessed 14/11/2011.
Shell (2008) "The Shell Energy Scenarios to 2050", Available at: http://www.shell.com/home/content/aboutshell/our_strategy/shell_global_scenarios/shell_energy_scenarios_2050/, accessed 14/11/2011.
Smil, V. (2005) *Energy at the Crossroads*. Cambridge, MA: MIT Press.
Smith, C.A., Belles, R.D. and Simon, A.J. (2011) "Estimated International Energy Flows 2007", Lawrence Livermore National Laboratory/US Department of Energy, March 2011, Available at https://flowcharts.llnl.gov/content/international/2007EnergyInternational.pdf, accessed 14/11/2011.
Taleb, N.N. (2007) *The Black Swan: The Impact of the Highly Improbable*. New York: Random House.
Thaler, R.H. and Sunstein, C.R. (2008) *Nudge: Improving Decisions About Health, Wealth and Happiness*. Princeton NJ: Yale University Press.
UNEP (2002) "Global *Environment Outlook-3: Past, Present and Future Perspectives."* London: Earthscan.
Van Der Veer, J. (2007) "States Should Create a Climate for Change", Article published in the Financial Times, London on Wednesday 24th January 2007, Available at: http://www.shell.com/home/content/media/speeches_and_webcasts/archive/2007/jvdv_article_climate_change_24012007.html, accessed 14/11/2011.
WEC (2010) "White Paper: Scenarios", World Energy Council, Available at: http://www.worldenergy.org/documents/scenarios_white_paper2010.pdf, accessed 14/11/2011.
Winter, S.G. (2003) "Understanding Dynamic Capabilities", *Strategic Management Journal*, 24, pp. 991–95.

Conclusion: Energy Governance, Global Development and New Research Agendas

Timothy M. Shaw

> Energy constitutes a rich, but underexplored, arena for global governance scholars and policymakers. The world is currently on an unsustainable and conflict-prone track of volatile and unreliable supply of energy fuels, vulnerable infrastructure . . . Changing to a different path will be a monumental global governance endeavor that will require bridging multiple issue areas, regimes, and policy silos.
>
> (Florini and Sovacool 2011: 57)

1. Introduction

This tenuous redefinition of the energy sector and energy governance, and diplomacy, in the second decade of the twenty-first century is symptomatic of change in the global political economy. In this case, 'the rest' (Zakaria 2008) is a mix of non-Western national oil companies (NOCs) and the five BRICS: the core of the emerging 'second world' (Khanna 2009). The established post-war dominance of the 'seven sisters' and of the G8, or triad, is being rapidly superseded by the Chinese, Indian, Saudi and other NOCs, even if elite networks in the sector still centre on leading Western corporations, possibly leading towards a hybrid form of transnational energy regime (De Graff 2011).

Andreas Goldthau and Jan Martin Witte (2010) suggest that the established concentration on energy security is being superseded by a focus on energy governance which reflects the appearance of major new energy consumers, like India and China, the resurgence of state players in the global South, and the burgeoning, exponential impact of climate change. As Florini and Sovacool (2011: 70) caution:

> The existing institutions of global energy governance are demonstrably ill-equipped to handle humanity's daunting energy challenges, which require simultaneous attention to issues related to geopolitical stability, the security of energy infrastructure, trans-boundary environmental externalities, the proliferation of nuclear technology, investment & trade rules, economic development, and water and agricultural policy. Together, these challenges constitute a compelling rationale for a sustained research agenda in global energy governance.

This collection has concentrated on changes and challenges in Eurasian energy with a concern to bring governance (Bevir 2011), or more precisely emerging energy governance, into IPE both regionally and globally, particularly through a transnational rather than inter- or trans-governmental focus (Dingwerth 2007; Held and Hale 2011). The shift from 'energy security and diplomacy' to 'governance and sustainability' reinforces the imperative of inter-disciplinarity and the transcendence of state-centrism, even as NOCs regain their centrality.

In turn this chapter argues that a wide variety of assumptions and methods are required going forward, including the recognition of the informal and illegal. As such, a research agenda for the future might juxtapose a variety of, sometimes unfamiliar, genres in order to advance the analysis of energy governance in the second decade of the twenty-first century. New institutions, lines of communication and negotiation, for example from East to South, demand a new approach, building on the work done in this book, which can recognize the wide and disparate variety of IPE. This chapter marks an attempt to embrace just such a wide IPE perspective, alongside more traditional concepts, to consider energy, mainly beyond the EU and Russia, within the context of debates current within international development.

2. Emerging energy contexts

Energy demand is increasingly a function of the five BRICS, particularly India and China, with supply, outside of the Middle East, being largely a function of but one to date, Russia. Energy diplomacy is likewise increasingly a function of Western consumers, entrepreneurs and engineers beginning to network with the Russians and NOCs along with resource-rich but otherwise problematic regimes like Equatorial Guinea and Sao Tome, let alone Libya. Unanticipated windfalls like 'shale gas' in North America further complicate the evolution of energy governance

(Goldthau 2012: this book). This confused picture, given the relative absence of established energy governance regimes, is partly why energy security has, thus far and for the foreseeable future, proven so elusive.

The sector is likely, therefore, to be characterized more by anarchy than hierarchy given the absence of central or authoritative forms of regional or global governance. As Robert Keohane (1984) cautioned before the end of the Cold War, oil is different, so global governance in this sector is likely to remain elusive despite the efforts of the International Energy Agency (IEA), the Organisation of Petroleum Exporting Countries (OPEC), the Energy Charter Treaty (ECT), the World Energy Council (WEC), and the Extractive Industries Transparency Initiative (EITI).

The context within which energy trade and governance takes place is also changing. The Anglo-American, trans-Atlantic financial crisis at the turn of the decade has shaken up the inter-regional hierarchy and has accelerated the reordering of the global political economy (Pieterse 2011), symbolized by the fast-tracked institutionalization of the G20 (Cooper and Subacchi 2010: 607–11, 741–42). The 'Asian' crisis of the mid-1990s was seen to have been caused by, and confined to, that region (Robertson 2008). In the current one, 'Asia' is saviour rather than culprit, again symbolic of its seemingly exponential ascendency (Thompson 2010). The established trans-Atlantic Anglo-American core is in contraction whereas the global South, Africa and Latin America as well as Asia is expanding which can be interpreted as a process of global rebalancing.

In addition, global issues are increasingly defined and processed by the 'rest', especially extensive networks or coalitions of heterogeneous actors concerned over, say, issues around access to land and water, child labour, climate change, conflict diamonds, and forestry and fisheries. This suggests the emergence of private or transnational 'global governance' (Bernstein and Cashore 2008, Dingwerth 2008, Gibbon et al. 2011). Meanwhile, the 'other' side of globalization, related to criminality, identified by Glenny (2009), Naim (2007) and others, is generating its own set of global responses as in Anti-Slavery International, Small Arms Survey, the United Nations Office on Drugs and Crime (UNODC) and related coalitions.

The Financial Times (FT) in mid-August 2010 (FT, 16 August 2010) suggested that emerging market (EM) consumers would be spending more than those in the US and EU by the end of the second decade of the twenty-first century. As a result, Multinational Corporations (MNCs), from both South and North, are increasingly investing there in facilities

and franchises. As an example, McCain proudly claims over 50 facilities in over 100 markets 'with a focus on emerging markets' (McCain website). Walmart has just entered into the latest, fifth BRICS, South Africa.

Nowhere is this transformation, in terms of involvement of 'the rest', more apparent than in the oil and gas industry where the pressures and directions are contradictory, in part because it is so essential, particularly for the emerging Southern economies, for mega and modest state oil companies, as well as diverse private corporations (Goldstein 2007; Hofmeister 2010). By contrast, a sustainable energy perspective or paradigm would lead away from a preoccupation with shorter term oil and gas supply to a focus on technology, equity, and distribution, that is longer term human development and security (Berdal and Malone 2000).

Moreover the global energy market no longer just reflects Northern, and or OECD, companies' seasonal demand and supply chains. Rather, it is increasingly a function of myriad diffuse communities, networks and actors, especially Asian. Even OPEC is showing its age as it marked a half-centenary in 2010. The IEA suggests that Northern seasonal demand no longer determines price and supply, instead exponential demand from the BRICs means that traditionally lacklustre second quarter demand is also increasing (IEA website).

The emerging and changing energy nexus and international contexts lead to the imperative of nuanced interdisciplinary approaches, as indicated by Khanna (2009) and Zakaria (2008). They suggest movement towards a flexible, changeable but judicious mix of development, environmental, gender, global, and security studies (Cooper and Subacchi 2010; Shaw et al. 2009). Such intellectual and policy imperatives may draw some resilience in the current period of rebalancing from two sets of parallel conceptual developments: (i) varieties of capitalisms, markets, civil societies, and states (Bruff 2008) and (ii) emerging states, markets, and societies (Pieterse 2009, 2011). The former is the latest iteration from a long vintage on the political economy of states and markets, whereas the latter is very contemporary and has blossomed around the emergence of the BRICS, and other 'emerging' markets and states. It is further encouraged and supported by the uneven causes and consequences of the current 'global' crisis.

In this vein, this chapter, being as it is both a postscript and a preview, attempts to juxtapose a set of often unrelated genres which can nevertheless contribute to an enhanced understanding of energy governance in the second decade of the twenty-first century. This chapter

utilizes genres such as SIDS, new regionalisms, resource blessing or curse, resource wars, alongside less orthodox IPE concepts, such as development, environmental, global and security studies (Desai and Potter 2008). Together, these are reinforced here by Pieterse's (2011: 22) suggestion that the established North-South axis is being superseded by an East-South 'turn':

> . . . the rise of emerging societies is a major turn in globalization and holds significant emancipatory potential. North-South relations have been dominant for 200 years & now an East-South turn is taking shape. The 2008 economic crisis is part of a global rebalancing process.

2.1 Developing and transitional countries and resources

BRICS energy governance and trade are important components of changing international regimes and markets. The growing control of the Russian state over its energy sector, combined with its narrative of 'energy superpower' status, and China's 'energetic' energy diplomacy have been seen to challenge neoliberal-institutional governance orthodoxies (Goldstein 2007: 33–40). In addition, despite the trans-Atlantic financial crisis, at the turn of the decade, India and China's demand for raw material imports, especially energy, has continued to be resilient. Such demand and its impact on maintaining high prices, along with the parallel need for export markets, has moderated the negative fallout in many regions, including Africa (Cheru and Obi 2010), which like others in the global South increasingly advertises its burgeoning, consumptionist middle classes.

Furthermore, Goldstein's (2007) monograph on EMNCs (Emerging Market MNCs), along with the Boston Consulting Group's annual listing of 100 new Challenger companies, includes several mammoth state oil companies all with extensive, ambitious global reach (Boston Consulting Group 2011). They operate often in consortia with each other and with Northern MNCs in terms of markets, skills and technologies. They include, among others, China National Petroleum Corporation (CNPC), China National Offshore Oil Corporation (CNOOC), Indian Oil Corporation (IOC), Kuwait Petroleum International (KPI), Lukoil, Pemex, Petrobras, Saudi Aramco, and Yukos (Goldstein 2007: 35–39).

There are increasingly interesting varieties of capitalisms, and companies, appearing amongst the NOCs. Corporate links and networks in energy are extensive and dynamic, especially around SWFs (Xu and Bahgat 2010), such as those from the Gulf Kingdoms (Legrenzi

and Momani 2011). The International Petroleum Investment Company (IPIC) of Abu Dhabi is the centre of a global, oil, gas, petrochemicals, cable, and automobile corporate group . This includes Borrealis, Daimler, Ferrostal, MAN, Nova Chemicals in North America and Canada, OMV in Central Europe as well as others in Australia, Egypt, Japan, Pakistan, Portugal, and Spain. Such cases reinforce the analysis of Nana De Graff (2011) about the prospects of hybrid energy governance as NOCs and SWFs connect to established Northern and Western corporate networks.

2.2 Resource curse or blessing?

The 'seven sisters', having dominated the post-war world of energy (Sampson 1976), have long since yielded to large and small state oil companies (Goldstein 2007: 35–39). The BRICS have served to exacerbate this transformation whilst also building up increasingly influential Sovereign Wealth Funds (SWFs) (Xu and Bahgat 2010). There is, furthermore, a possibility of transition for some states in Africa, and elsewhere, from fragile to robust as a result of fossil fuel discoveries and development (Cheru and Obi 2010: especially 181–207). During the second half of the last decade, half the fastest growing economies were located in Africa rather than in the BRICS, mainly because of energy and other resources. These included Angola, Congo (Brazzaville), Equatorial Guinea, Sao Tome, Sudan (*Economist* 2009: 103). These events might indicate a noteworthy shift away from 'resource curse' to blessing, especially through the recognition of distinctions between concepts such as resource curse, resource conflicts, and conflict resources (Berdal and Malone 2000; Klare 2002; LeBillon 2005).

Equally compelling cases supporting the concept of resources as 'curse' continue to abound. Energy associated windfalls in East and West Africa, especially in small states like Equatorial Guinea and Sao Tome, have arguably encouraged some rather nasty regimes (Shaxson 2007). Oil in Kurdistan and Afghanistan may well complicate getting to peace and security let alone development, human and/or national. Energy like other extractive industries has often been associated with private, as well as state, security, but private security and military companies are becoming larger and more ubiquitous and not just in Afghanistan and Iraq (Wulf 2005).

The Niger Delta has had a troubled contemporary history: from 'Biafra' in the late-1960s to today's endless inflammable mix of flaring, bunkering, attacks on oil installations, hostage-taking, militias violence to guerilla chic. Transnational relations of exploration, production, exportation, and accumulation are inseparable from local resistances

and ethnicities along with Diaspora connections (Obi 2009). Nigeria's democratic development is in jeopardy for a range of reasons, including widespread corruption and mafia networks, from Kaduna to London. Obi (2009: 108–11) identifies a half-dozen possible perspectives and explanations as drivers of such conflict – from new political economy and war economies, resource or oil curse and environmental scarcities to neo-patrimonialism and horizontal inequalities – with relevance for broader, comparative dimensions of elusive energy governance.

Questions of energy as curse or blessing are played out elsewhere on the African continent, for example in Ghana and Uganda. The cases of new discoveries in these countries may be bellwether but questions remain whether corruption be minimized or contained, via global coalitions and/or attention around movements such as Publish What you Pay and the Extractive Industries Transparency Initiative (EITI). Such new producers can now play off not only the trans-Atlantic economies and companies but the trans-Pacific ones too in some of their leaders' quest for off-budget income.

Furthermore, these discoveries raise environmental, social, and political concerns. First, although Ghanaian oil is offshore, it lies along the sea border with Cote d'Ivoirewhereas Uganda's is along the border with the Democratic Republic of Congo (DRC). Some reserves are under Lake Albert, a pristine rift valley area, and Heritage owns the licences to half of the lake in the territory of the DRC. And second, both these countries could become victims of the 'resource curse' unless the windfall incomes are handled well.

Political institutions and associations mark Ghana out somewhat from Uganda. Ghana has had a series of elections and regimes, whereas Museveni has held onto power in Uganda for three electoral terms, for 25 years as of January 2011. To exploit significant reserves, capital and technology from the majors is required and both juniors would have to partner with established oil companies to start production. Heritage is already associated with Anadarko, EOG, Kosmos, and Sabre, while Tullow has proposed CNOOC and Total to the government in Uganda (Shaw and Mbabazi 2007). Symptomatically, Ghana is already a 'compliant' country in the EITI whereas Uganda has yet to institute any admissions process.

Peter Rutland (2006), writing about Russia, suggests that the 'resource curse' can be transcended through governance practices which can remove a resource-rich country from dependence on related revenues. The extensive emergence of Sovereign Wealth Funds (SWFs) amongst fossil fuel-rich countries is example enough of the popularity now of

the notion that windfall profits during periods of high prices should not be allowed to impact on domestic inflation.

Trinidad and Tobago (T&T), although fossil fuel rich, may represent a country which has been making specific attempts to escape the curse through diversification. Trinidad has had two periods of energy-based industrialization leading to two distinctive mini-cities: the Eric Williams' era Point Lisas for iron, steel and petrochemicals and twenty-first-century Point Fortin for LNG. The negative impact of the decline in the price of gas at the turn of the decade has been cushioned by the expansion of gas derivatives like ammonia, methanol, urea in which Western Canadian capital has been central (Guyadeen 2010: 58–80). For most of the first decade of the twenty-first century, much of the expanding LNG production was shipped to the US and T&T became the US's largest supplier but recession and shale have undermined this special relationship. In addition, T&T faces declining reserves and exploration, although a new bilateral trans-frontier regime for exploration and extraction agreed with Venezuela might help, so it is prioritizing the maximization of downstream value-added, from iron, steel, ammonia, and methanol, on to polymers and plastics.

After a 100 years of oil, T&T has an impressive technological infrastructure so might be able to develop a hybrid economy based on the generation and exportation of education, manufacturing and services. The decade of the PNM Manning regime in Trinidad coincided with a mini-energy boom, but it now has a new coalition government, headed by its first female PM, attempting to expand beyond LNG and oil. In turn, the 'people's partnership' has sought candidacy status in EITI, putting in place a strong national committee to advance towards qualifying for membership.

2.3 Transnational and private 'Global Governance'

> A related aspect of this new era is the diffusion of power from states to other actors. The 'rest' that is rising includes many non-state actors . . .
>
> . . . That does not mean we are entering an anti-American world. But we are moving into a post-American world, one defined & directed from many places & by many people.
>
> (Zakaria 2008: 4, 5)

International law and organization have largely yielded to 'global governance' as the primary concept for analysing international norms, rules,

and regulations. These, in turn, are now affected by a range of heterogeneous actors, as reflected in endless acronyms, processes, and initiatives (Desai and Potter 2008: 16; Weiss 2000). So contemporary 'new multilateralisms' increasingly include non-state actors along with myriad states, regional and global interstate organizations, symbolized by the only global commission to date to be based in the South, the World Commission on Dams (Khagram 2004). In turn, 'global governance' has had to accommodate to notions of transnational and/or private governance centered in the South as well as North (Brown 2011; Dingwerth 2008), especially around energy and resources. This is arguably more particularly so as energy governance is redefined away from the more traditional 'oil and gas' towards 'diversity and sustainability' (Kuzemko 2012: this book).

Examples include the Intergovernmental Forum on Mining, Minerals, Metals and Sustainable Development, which attempts to advance a moderate industry-friendly perspective on non-renewable extraction and is primarily Africa-focused (Global Dialogue 2011). Klaus Dingwerth (2008: 607) draws attention to the World Commission on Dams as well as the Global Reporting Initiative (GRI) and Forest Stewardship Council (FSC) thus:

> While private authority beyond the state has become a popular theme of academic writing, the role of stakeholders in the Southern hemisphere as objects and subjects of private transnational governance has rarely been addressed in the literature. To fill this gap, this article examines three private transnational governance (PTG) schemes in the field of global sustainability politics and their relations to the South.

These have proliferated in response to the multiplication of global issues and relations: from Ottawa (OP) and Kimberley Processes (KP) to Forestry (FCS) and Marine Certification Schemes (MCS) (Cadman 2011; Gale and Haward 2011), onto Ethical Trade (ETI) and the EITI (Bernstein and Cashore 2008). They have profound implications for the changing roles of all involved, for example International Non-Governmental Organisations (INGOs) being transformed from advocacy to monitoring functions, to the public diplomacy of multiple stakeholders, in other words the emergence of 'network' rather than 'club' diplomacy (Heine 2006) as well as 'celebrity' diplomacy (Cooper 2008; Cooper and Subacchi 2010: 757).

By contrast, Canadian Naomi Klein is critical of MNCs in general treating any corporate-NGO alliances or corporate social responsibility (CSR) claims as merely cynical preemptive diplomacy (Klein 2000).

2.4 Energy supply chains and regionalisms

As some of the chapters in this collection on regional energy supplies and governance make all too apparent, global supply, and value, chains are of increasing importance both for supply to meet demand and in terms of development and standards (Gibbon et al. 2010). Supply chain disruptions as a result of the early 2011 earthquake and tsunami in Japan only confirmed their centrality. Just as global manufacturing means just-in-time production in myriad places along the chain (Levinson 2008), so the global energy sector requires reliable logistics for exploration, exploitation, refining, and distribution.

Russia's claim to BRIC status has become the most problematic of the four now five, as underlined its exponential decline in population. Its GNP is increasingly a function of oil and gas exports, often via a maze of rusting pipelines. More than half of the EU member states import gas from Russia with those in the east and centre being most dependent. Conversely, some of the newly independent, non-EU, economies are embarking on a political competition with their former metropole, such as Azerbaijan, Georgia, Kazakhstan, Ukraine, and so on. (Broome 2010), encouraged by the West's aspirations for their greater autonomy. This is the case even if the Caspian currently plays an ambiguous role given continuities in Russian energy supply, contracts, pipelines, and existing economic and political relations. Nevertheless, the geopolitics as well as political economy of such pipeline routes are of growing salience, especially those through Georgia and Turkey (Aalto 2008; Pirani 2012: this book). Such issues may be replicated, even intensified, as railway lines to and from China and the EU get considered and constructed.

Global standards have been established within some supply chains, as in global brands and franchises, and may facilitate alliances with NGOs or developmental coalitions:

> New value chain strands have similarly emerged in some chains where environmental or ethical norms or new product quality requirements are required by standards, especially where there is (also) a requirement for 'chain of custody' traceability.
>
> (Gibbon et al. 2010: 11)

Such concerns regarding supply chain custody or integrity arise in the Kimberley Process for conflict diamonds and now in the Natural Resource Charter, as indicated further below.

The intermediate level of analysis of production, distribution and consumption, macro-, meso-, and micro-regionalisms, is of growing salience, related to the emergence of more efficient supply chains and standards. This suggests genuine 'new regionalisms'. This is especially so in Central Asia, the Middle East and North Africa (MENA) (Harders and Legrenzi 2008) as well as the several 'Africas' (Soderbaum and Taylor 2008). In the latter, particularly given the opportunities and pressures arising from the BRICS (Cheru and Obi 2010), a variety of standards or norms are being considered to enhance resource governance such as the International Tropical Timber Association (ITTO), and the Marine Stewardship Council (MSC) (Grant et al. 2011; Schnurr and Swatuk 2011).

The other side of regionalisms can be seen in the choke points along supply chains including the above-mentioned pipeline politics, and piracy on the high seas such as in the Straits of Hormuz and Malacca, with profound impacts on Middle East-Asia and Europe supply chains. This also affects the old-fashioned sea lanes of communication (SLOC) which are increasingly used by LNG transporters and container boats, let alone luxury yachts.

2.5 The 'Other' side of energy: Pollution and mafias

Energy, and its trade, is closely linked with one last area of development studies, criminality. Moises Naim (2007: 10) drew attention to the 'five wars of globalization' at the start of the century: 'illicit markets for arms, drugs, human beings, intellectual property and money'. The 'worlds' of money-laundering and energy are arguably inseparable, similarly those of drugs and guns and boys (Townsend 2009). So the supply chains that transport fresh flowers, fruits, and vegetables can also carry AK47s, blood diamonds, landmines, and young girls. Globalizations have generated a rich diversity of mafias who engage in multiple sectors as opportunities arise. In turn, there have been campaigns and other pressures to control export of informally and/or illegally produced goods from, for example the Congo (Global Witness website), such as coltan which the global cell-phone industry opposes (FFI website).

Hence the exponential threat to environmental security (Schnurr and Swatuk 2011) with indirect as well as direct connections to the energy sector. This is evidenced in the proposed US Congressional ban

on resources from conflict zones, and by the International Conference on the Great Lakes Region's (ICGLR) support of OECD proposals on high technology autos and electronics using conflict metals from such zones. The extension of the notion of 'responsibility to protect' towards such violence and its causes is always on the horizon (Responsibility to Protect; Global R2P).

Energy revenues as well as its exploration, exportation, production, and consumption cannot be separated from mafias and money-laundering because, like sports such as soccer and cricket to the Olympics (Jennings 2007), the amounts are just so huge. International offshore centres have been one way for Small Island Developing States (SIDS) to survive (Vlcek 2008), but like gambling, increasingly including internet gambling (Cooper 2011), they are inseparable from money-laundering and related crime. Hence the Financial Action Task Force (FATF) and enhanced pressure from the Obama Administration via the G8, and the OECD, reinforced by 9/11 and now the financial crisis (FATF website). But regions like the Caribbean are reluctant to turn back on any form of economic diversification, especially given the impact of the global recession on international tourism and on increasingly vital remittances from the Diasporas. Meanwhile the globalization of mafias makes them ever more like an underworld UN. And the alleged connections, as derivatives of oil and gas, between mafias, British football clubs, and the Federation International de Football Association (FIFA) read like a mystery or murder novel (Riordan 2007). But my conclusions are, alas, much less melodramatic.

3. Conclusion

The global energy sector and its governance at the start of the second decade challenge assorted established assumptions about traditional IPE and IR (Goldthau and Witte 2010; Florini and Sovacool 2011; Phillips and Weaver 2010), especially if sustainable energy policies are proposed and increasingly privileged around the world. As such, this book has served as an attempt to move beyond narrowly defined, often normatively informed, concepts through its broad, inter-disciplinary IPE approach. Clearly relations between states, companies, and communities will continue to be central and the ways in which emerging states, markets, companies, and societies relate to each other will remain problematic. Some form of power sharing or division of labour amongst them will be imperative. Similarly, there will always be illegal as well as legal relationships around oil and gas, but the balance between them too

will be an ongoing struggle symbolized by the EITI and other emerging non-state governance structures.

Likewise, markets are unpredictable. There may not be any more tar sands or shale discoveries but there will be shocks, man-made or otherwise. Almost by definition, this sector involves risks, for analysts, conceptual assumptions and frameworks, as well as analyses. Energy governance, like such governance in other sectors, economic, ecological, educational, financial, health, and technological, suggests the imperative of recognizing varieties of IPE, as well as development, global, and security studies. These are increasingly oriented along an embryonic East-South rather than the established North-South axis at the start of the second decade of the twenty-first century. And they are endlessly in flux as change, as in new energy sources and producers from, for instance, shale in North America, deep oil off Brazil and junior discoveries in Ghana and Uganda. Energy diplomacy, governance, and security will never be dull.

This is because it will continue to surprise and so challenge established assumptions and explanations. 'Energy' is being redefined as the global economy is in flux. Together, redefinitions and rebalancing will lead back to revisionist perspectives on IPE which increasingly recognize and privilege the burgeoning second world of BRICS and developing and transitional states. As Legrenzi and Momani (2011: 6) indicate in their own introduction to their new collection on 'Shifting Geo-economic Power of the Gulf':

> In line with a global shift of economic power to emerging market economies, the Gulf States are playing more active and overt roles in global finance and trade.

Bibliography

Aalto, Pami (ed.) (2008) *The EU-Russian Energy Dialogue: Europe's Future Energy Security* (Aldershot: Ashgate).

Auty, Richard (1993) *Sustaining Development in Mineral Economies: The Resource Curse* (London: Routledge).

Berdal, Matts R. and David M. Malone (eds) (2000) *Greed & Grievance: Economic Agendas in Civil Wars* (Boulder: LRP for IPA).

Bernstein, Steven and Benjamin Cashore (2008) 'The Two-Level Logic of Non-State Market Driven Global Governance' in Volker Rittberger and Martin Nettesheim (eds) *Authority in the Global Political Economy* (London: Palgrave Macmillan), pp. 276–313.

Bevir, Mark (ed.) (2011) *The Sage Handbook of Governance* (London: Sage).

Boston Consulting Group (2011) The African Challengers: Global Competitors Emerge from the Overlooked Continent. Boston: Boston Consulting Group. Available at: http://www.bcg.com/documents/file44610.pdf (Last accessed November 2011).

Broome, Andre (2010) *The Currency of Power: The IMF & Monetary Reform in Central Asia* (London: Palgrave Macmillan).

Brown, Stuart (ed.) (2011) *Transnational Transfers & the State* (London: Palgrave Macmillan).

Bruff, Ian (2008) *Culture & Consensus in European Varieties of Capitalism: A 'common sense' Approach* (London: Palgrave Macmillan).

Bulut, Tugce and Christel Lane (2011) 'The Private Regulation of Labour Standards & Rights in the Global Clothing Industry: An Evaluation of its Effectiveness in Two Developing Countries', *New Political Economy*, 16(1), February: 19–39.

Cadman, Timothy (2011) *Quality and Legitimacy of Global Governance*. Basingstoke and New York: Palgrave Macmillan.

Chan, Gregory T. (2010) *China's Automotive Modernization: The Party-state & Multinational Corporations* (London: Palgrave Macmillan).

Cheru, Fantu and Cyril Obi (eds) (2010) *The Rise of China & India in Africa* (London: Zed for NAI).

Cooper, Andrew F. (2008) *Celebrity Diplomacy* (Boulder: Paradigm).

Cooper, Andrew F. (2011) *Betting Online Offshore: Internet Gambling* (London: Palgrave Macmillan).

Cooper, Andrew F. and Bessma Momani (2009) 'The Challenge of Re-branding Progressive Countries in the Gulf & ME: Opportunities through Networked Engagements versus Constraints of Embedded Negative Images', *Place Branding & Public Diplomacy*, 5, May: 103–17.

Cooper, Andrew F. and Timothy M. Shaw (eds) (2009) *The Diplomacies of Small States: Between Vulnerability & Resilience* (London: Palgrave Macmillan for CIGI).

Cooper, Andrew F. and Paola Subacchi (eds) (2010) 'Global Economic Governance in Transition', *International Affairs*, 86(3), May: 607–757.

De Graff, Nana (2011) 'The Rise of National Oil Companies: Transformation of the Neoliberal Global Energy Order?' in Henk Overbeek and Bastiaan van Apeldoorn (eds) *Beyond Neoliberalism* (London: Palgrave Macmillan).

Desai, Vandana and Robert B. Potter (eds) (2008) 'Section 10 "Governance & Development" ' *The Companion to Development Studies* (London: Hodder Education, Second edition), pp. 499–572.

Dingwerth, Klaus (2007) *The New Transnationalism* (London: Palgrave Macmillan).

Dingwerth, Klaus (2008) 'Private Transnational Governance & the Developing World: A Comparative Perspective', *International Studies Quarterly*, 52(3), September: 607–34.

Economist (2009) *World in 2010: Beyond the Economic Crisis* (London) (www.economist.com/theworldin), last accessed on July 2011.

Florini, Ann and Benjamin K. Sovacool (2011) 'Bridging the Gaps in Global Energy Governance', *Global Governance*, 17(1), January–March: 57–74.

Gale, Fred and Haward, Marcus (2011) *Global Commodity Governance*. Basingstoke and New York: Palgrave Macmillan.

Gibbon, Peter, Stefano Ponte and Evelyne Lazaro (eds) (2010) *Global Agro-Food Trade & Standards: Challenges for Africa* (London: Palgrave Macmillan).

Gibbon, Peter, Stefano Ponte and Jakob Vestergaard (eds) (2011) *Governing Through Standards* (London: Palgrave Macmillan).
Glenny, Misha (2009) *McMafia: A Journey through the Global Criminal Underworld* (Toronto: House of Anansi).
Goldstein, Andrea (2007) *Multinational Companies from Emerging Economies* (London: Palgrave Macmillan).
Goldthau, Andreas and Jan Martin Witte (eds) (2010) *Global Energy Governance: The New Rules of the Game* (Washington, DC: Brookings Institution).
Grant, Andrew J., Tim Hughes, Kathryn Sturman and Timothy M. Shaw (eds) (2011) *New Approaches to the Governance of Natural Resources: Insights from Africa* (London: Palgrave Macmillan for SAIIA).
Guyadeen, Vashti G. (2010) *Centennial Energy Digest: Data from 1988–2008* (PoS: T&T Chamber of Industry & Commerce).
Harders, Cilja and Matteo Legrenzi (eds) (2008) *Beyond Regionalism? Regional Cooperation, Regionalism & Regionalization in the Middle East* (Aldershot: Ashgate).
Heine, Jorge (2006) 'On the Manner of Practising the New Diplomacy' (Waterloo: CIGI, October. Working Paper #11).
Held, David and Thomas Hale (eds) (2011) *Handbook of Transnational Governance: Institutions & Innovations* (Cambridge: Polity).
Hofmeister, John (2010) *Why we Hate the Oil Companies: Straight Talk from an Energy Insider* (New York: Palgrave Macmillan).
Humphreys, Marcatan, Jeffrey D. Sachs and Joseph E. Stiglitz (eds) (2007) *Escaping the Resource Curse* (New York: Columbia University Press).
Jennings, Andrew (2007) *Foul! The Secret World of FIFA: Bribes, Vote Rigging & Ticket Scandals* (London: Harper Sports).
Junger, Sebastian (2007) 'Blood Oil', *Vanity Fair*, February (www.vanityfair.com, accessed 29 August 2010).
Keohane, Robert (1984) *After Hegemony: Cooperation & Discord in the World Political Economy* (Princeton: PUP).
Khagram, Sanjeev (2004) *Dams & Development: Transnational Struggles for Water & Power* (Ithaca: Cornell University Press).
Khanna, Parag (2009) *The Second World: How Emerging Powers are Redefining Global Competition in the 21st Century* (New York: Random House).
Kirby, Peadar (2010) *Celtic Tiger in Collapse: Explaining the Weaknesses of the Irish Model* (London: Palgrave Macmillan, Second edition).
Klare, Michael T. (2002) *Resource Wars: The New Landscape of Global Conflict* (New York: Henry Holt, Revised edition).
Klein, Naomi (2000) *No Logo: Taking Aim at the Brand Bullies* (Toronto: Random House).
LeBillon, Philippe (2005) *Geopolitics of Resource Wars: Resource Dependence, Governance & Violence* (London: Frank Cass).
Legrenzi, Matteo and Bessma Momani (eds) (2011) *Geo-Economic Power of the Gulf* (Farnham: Ashgate).
Levinson, Marc (2008) *The Box: How the Shipping Container made the World Smaller & the World Economy Bigger* (Princeton: Princeton University Press).
Mahbubani, Kishore (2008) *The New Asian Hemisphere: The Irresistible Shift of Global Power to the East* (New York: Perseus).
Martinez-Diaz, Leonardo and Ngaire Woods (eds) (2009) *Networks of Influence? Developing Countries in a Networked Global Order* (Oxford: OUP).

Naim, Moises (2007) *Illicit: How Smugglers, Traffickers & Copycats are Highjacking the Global Economy* (London: Arrow).
Obi, Cyril (2009) 'Nigeria's Niger Delta: Understanding the Complex Drivers of Violent Oil-related Conflict', *Africa Development*, 34(2): 103–28.
Phillips, Nicola and Catherine Weaver (eds) (2010) *International Political Economy: Debating the Past, Present & Future* (Abingdon: Routledge).
Pieterse, Jan Nederveen (2009) 'Introduction 1: Development & Inequality' in Jan Nederveen Pieterse and Boike Rehbein (eds) *Globalization & Emerging Societies: Development & Inequality* (London: Palgrave Macmillan), pp. 1–8.
Pieterse, Jan Nederveen (2011) 'Global Rebalancing: Crisis & the East-South Turn', *Development & Change*, 42(1): 22–48.
Riordan, Jim (2007) 'Football: Nation, City and the Dream. Playing the Game for Russia, Money and Power', *Soccer & Society*, 8(4): 545–60.
Robertson, Justin (2008) *Power & Politics after Financial Crises: Rethinking Foreign Opportunism in Emerging Markets* (London: Palgrave Macmillan).
Rutland, Peter (2006) Oil and Politics in Russia, Paper prepared for the *American Political Science Annual Convention 2006*, Philadelphia.
Sampson, Anthony (1976) *The Seven Sisters: The Great Oil Companies & the World they Shaped* (New York: Bantam).
Schnurr, Matthew and Larry A. Swatuk (eds) (2011) *Centring the Margins: Rethinking Environmental Security in Theory & Practice* (London: Palgrave Macmillan).
Schwartz, Herman M. and Leonard Seabrooke (eds) (2009) *The Politics of Housing Booms & Busts* (London: Palgrave Macmillan).
Shaw, Timothy M., Andrew F. Cooper and Gregory T. Chin (2009) 'Emerging Powers & Africa: Implications for/from Global Governance?', *Politikon*, 36(1), April: 27–44.
Shaw, Timothy M. and Pamela K. Mbabazi (2007) 'Two Ugandas & a "Liberal Peace"? Lessons from Uganda about Conflict & Development at the Start of a New Century', *Global Society*, 21(4), October: 567–79.
Shaxson, Nicholas (2007) *Poisoned Wells: The Dirty Politics of African Oil* (New York: Palgrave Macmillan).
Soderbaum, Fredrick and Ian Taylor (eds) (2008) *Afro-Regions: The Dynamics of Cross-border Micro-regionalism in Africa* (Uppsala: NAI).
Thompson, Helen (2010) *China & the Mortgaging of America* (London: Palgrave Macmillan).
Townsend, Dorn (2009) 'No Other Life: Gangs, Guns & Governance in T&T' (Geneva: Small Arms Survey, December).
Vlcek, William (2008) *Offshore Finance & Small States: Sovereignty, Size & Money* (London: Palgrave Macmillan).
Weiss, Thomas G. (2000) 'Governance, Good Governance & Global Governance: Conceptual & Actual Challenges', *Third World Quarterly*, 21(5): 795–814.
Wulf, Herbert (2005) *Internationalizing & Privatizing War & Peace* (London: Palgrave Macmillan).
Xu, Yi-chong and Gawdat Bahgat (eds) (2010) *The Political Economy of Sovereign Wealth Funds* (London: Palgrave Macmillan).
Zakaria, Fareed (2008) *The Post-American World* (New York: Norton).

Web-based resources

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www.economist.com/theworldin
www.eiti.org
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Afterword: Findings and Further Avenues of Inquiry

Andreas Goldthau, Michael F. Keating, Caroline Kuzemko and Andrei V. Belyi

Dynamics of Energy Governance in Europe and Russia has aimed to bring energy into international political economy (IPE) by analysing regional energy governance dynamics within a contemporary IPE framework. More than anything else, the book has revealed the fruitfulness of interdisciplinary dialogue, and the utility of approaches which escape from narrow disciplinary perspectives. While states and markets have clearly been central components of the IPE analysis of energy governance provided here, a diversity of factors influencing energy governance have also been highlighted in these chapters, not least mounting political support for climate change mitigation and informal institutions that promote policy transfer, such as best practices policy narratives. Several chapters have revealed the utility of understanding matters of international law for an IPE analysis, while others point to the interdependence of market mechanisms with the activities of both transnational treaties and cooperative frameworks. Moreover, a deliberate focus on actors beyond 'the state' such as transnational corporations, international organisations and treaties, sub-state actors, and to a lesser extent NGOs, proved to be key to understanding energy governance in Europe and Russia.

Indeed, the transnational grounding of the dynamics of energy governance in Europe and Russia has been starkly rendered: no limited domestic analyses or narrow focus on national governments or international organisations could possibly hope to reveal this rich tapestry of interwoven regional dynamics. In addition, the IPE approach adopted here has helped to demonstrate that both Europe and Russia are affected by global economic trends, which, in turn, affect energy relations in the region. The mounting impact of extra-regional factors, which also include the growing role of developing and transitional

countries in both energy production and consumption, constitutes the basis for analysis of regional specificities in the field of energy governance.

It proved highly useful to structure the book along the three distinct lines of frameworks underpinning transnational specificities of energy governance, issues that have traditionally been dealt with as matters of domestic politics, and contemporary dynamics. Yet a number of cross-sectional themes were raised in this book that typify the dynamics of energy governance in Europe and Russia. First, numerous chapters addressed one of the core questions of governance: whether, and if so, how, transnational policy mechanisms can generate steering capacity sufficient to address a range of energy-related policy issues. An interesting dynamic emerges between attempts to globalise certain norms and practices, on the one hand, and national policy specificities on the other. Tatiana Romanova focused on legal regime harmonisation, and Michael Keating on global best practices and energy sector policy transfer, both providing critical takes on transnational governance processes and frameworks. Ksenia Petrichenko and Andrei Belyi provided a case study of best practice policy transfer between Europe and Russia. Caroline Kuzemko in turn looked at the role of new norms in regional energy governance, while David Elmes analysed energy governance dynamics in the context of the policy frameworks of one of the core transnational actors, and indeed, governance providers, in the sector: corporations.

Second, it is clear from several of the chapters that, perhaps more than any other sub-sector, the gas component of the energy industry is in severe flux in the region and, indeed globally, with massive governance and security implications. Both Kim Talus and Andreas Goldthau addressed the various underlying causes of the transformation of regional gas markets, with the former assessing legal and contractual implications, and the latter focusing directly on emerging forms of governance that can respond to such transformations. Vitaliy Pogoretski and Daniel Behn specifically examined gas market pricing policies, while Slawomir Razswkski engaged with perceptions on issues of gas supply security in North East Europe. Simon Pirani added to this by looking at the political economy of gas transit issues. Questions raised in these studies also include questions of national security, regional energy security and the causes of conflict. This theme was picked up on by Jakub Godzimirski and Ekaterina Demakova, who examined the relations between states and state-owned gas majors in this dynamic transnational context.

Third, the growing impact of climate change concerns on policy making in the energy sector has been clearly highlighted in this book. As Anatole Boute demonstrated, the rise of energy efficiency in the European Union's external energy relations policies is a crucial case study of how environmental concerns have generated transnational pressure upon policy makers; at the same time it is a prime case of how the EU utilises environmental and climate concerns as a proxy to foster crucial goals in other policy areas. Adding a legal dimension to this, Tatiana Romanova also looked at clean energy challenges, with regard to regime harmonisation in the broader region. Ksenia Petrichenko and Andrei Belyi explicitly engaged with environmental concerns in a focused case study of energy efficiency policies in Europe and Russia. Finally, Caroline Kuzemko's chapter made clear that even in Europe's neo-liberal heartland, the UK, new environmental norms are pushing the state back into energy policy and to some extent overshadowing the previous market-focused policy paradigms in energy governance. Overall, this book has made some headway towards re-integrating environmental and climate concerns into the study of energy governance, which is one of the, if not the most, directly relevant policy area in which these issues can be addressed.

Fourth, the book has in broad terms addressed the current state of, and prospects for, the neo-liberal policy agenda in the energy sector. Some chapters have focused on questions of convergence and divergence, such as Tatiana Romanova on legal harmonisation, and both Michael Keating and Ksenia Petrichenko, and Andrei Belyi on best practices policy narratives. Others look explicitly at market norms as potential drivers of energy governance dynamics, such as Vitaliy Pogoretski and Daniel Behn, and Caroline Kuzemko. Both Kim Talus and Andreas Goldthau focus on the prospects for, and limitations of, market-based norms to provide governance in regional gas markets. Altogether, while energy issues have become increasingly transnationalised, this book suggests that transnational modes of energy governance based on neo-liberal norms appear more and more problematic. This allows the volume to contribute to wider debates within IPE regarding challenges to the 'orthodoxy' of neoliberal institutionalism.

The fifth and final thematic focus in the book as a whole has been on governance itself. David Elmes' chapter provided an interesting take in this regard, as his decentralised study of corporate actors revealed energy trends with governance implications that differ significantly from the key issues raised in other analyses – for example the rise of an informational energy economy as heralded by 'smart meters'. This

demonstrates the importance of including a business perspective, particularly in energy governance considerations. This neatly combines with Tim Shaw's concluding chapter, which dealt with emerging, macro-level, that is, *global* dynamics that are already impacting upon regional energy governance considerations. Consequently, the set of works collected here provides *more* than a snapshot of the 'mode of governance' of the energy sector in the region; rather, it directly addresses the complexities of energy governance and the dynamic pressures which are even now driving changes in this sector.

The book has, through an interdisciplinary, multi-level, multi-actor and normatively open framework, demonstrated the analytical usefulness of a contemporary IPE approach to a policy area hitherto dominated by a narrow geo-political or neo-liberal literature. Through an IPE conception of governance, the book has also been able to address the sheer breadth of governance arrangements found in the region's energy sector. What is revealed is a heady mix of international law, treaties and organisations, state policies and internationalised agencies of state, markets and market actors, including corporate strategies and contractual arrangements, existing and emerging norms, and policy narratives. All, in turn, both affect and are affected by changing material conditions and the rapidly evolving technology base of the energy sector, raising question for policy makers, corporations and other actors in the region that will not disappear in the foreseeable future, not least of which pertain to the four prior themes herein addressed.

Moreover, the book has revealed that Europe and Russia indeed offer a rich set of case studies for analysing energy governance. In engaging with truly regional energy dynamics, the book avoided a range of narrow approaches – narrow questions of security, narrow legalistic and contractual readings of complex policy problems, narrow focuses on states (geo-political or domestic in nature) and narrow ideological conceptions of the role of the market in the energy sector. As a result, the work collected here paints a detailed picture of tensions and pressures, and actors and institutions, so as to constitute an international political economy approach to the study of energy. At the same time, and as we argued in the introduction, the themes addressed in this regionally limited study are also of broader significance, such that this book can also contribute to the global study of energy governance.

Energy governance in Europe and Russia is clearly in transition. Policy makers and market actors are part of these new governance realities, reflecting new societal norms (such as relating to the environment), and perhaps the reconsideration of existing ones (such as the appropriate

functions of states and markets), the transformation of the sector (due to changes in technology and both supply and demand) and broader changes in the global political economy (such as continuing global economic crises) that the energy sector is in numerous ways contingent upon. Indeed, and linking the book back to the global context, Timothy Shaw in his concluding chapter has explicitly addressed the global dynamics of international political economy, beyond energy and regional relations, and how these might reflect back onto energy governance considerations in Europe and Russia in the near future. These transnational dynamics will trigger attempts to develop transnational mechanisms of energy governance in the region, which will certainly continue to drive corporate, academic and policy-maker interest towards this topic.

While having demonstrated that interdisciplinary IPE-informed energy analysis bears fruit and leads to compelling results, *Dynamics of Energy Governance in Europe and Russia* is just a start. In fact, as the project has demonstrated, there remain various issues that deserve more in-depth inquiry and scholarly attention. In particular, the civil society nexus in energy governance remains under-researched – both on a regional level and also with regard to global energy governance. As noted in the introduction to this book, our understanding of governance involves a large range of non-state actors that must be recognised in the provision of governance, including the non-profit sector. The latter, however, did not feature prominently in the book for two reasons. On the one hand, our main and explicit focus has been on breaking up traditional boundaries between 'state' and 'market' and between 'domestic' and 'transnational' contexts. The main dividing line regarding actors has therefore been between state and non-state actors, but not explicitly civil society. On the other hand, as some of the research carried out for individual chapters seems to suggest, civil society actors are important regarding transnational and domestic *environmental* issues. With regard to transnational *energy* affairs, however, they tend to be by and large absent in governance arrangements.

Within domestic contexts, the literature indeed recognises the role of civil society actors in energy, notably in the context of the 'Dutch Disease' and the 'Resource Curse'; here, civil society and non-profit organisations are held responsible for being instrumental in building up governance capacity to address these problems. Moreover, in the context of a transition to sustainable energy models, locally operating for-profit and non-profit organisations, in conjunction with hybrid models, such

as public-private partnerships, are considered key actors in the transformation process, as they both drive and own the process. When it comes to transnational phenomena, there seems to be a large gap in the literature, a gap which this book could hardly attempt to fill. The civil society nexus in transnational energy affairs certainly deserves further inquiry and assessment – possibly as a focal point within the PEEER network but hopefully also beyond.

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